PROCEEDING OF INTERNATIONAL CONFERENCE ON FUNDAMENTAL AND APPLIED RESEARCH

I·CFAR 2019

"Multidisciplinary Research on the Transformational Aspects of Tourism"

ISBN: 978-602-53420-4-2

Institute for Research and Community Development
Universitas Dhyana Pura
Bali, 7 October 2019

PROCEEDINGS

I·CFAR

INTERNATIONAL CONFERENCE ON FUNDAMENTAL AND APPLIED RESEARCH (I-CFAR) MULTIDISCIPLINARY RESEARCH ON THE TRANSFORMATIONAL ASPECTS OF TOURISM

The Institutions of Research and Community Service
Universitas Dhyana Pura
Bali, 7 October 2019

ISBN: 978-602-53420-4-2

EDITORIAL BOARD

ISBN : 978-602-53420-4-2

Publisher:

Lembaga Penelitian dan Pengabdian Masyarakat
Universitas Dhyana Pura
Jalan Raya Padang Luwih, Tegaljaya, Dalung, Kuta Utara,
Badung, Bali 80361.
Telp. (0361) 426450, (0361) 426451 Ext. 404 Fax.(0361) 426452
e-mail : lppm@undhirabali.ac.id
website : lp2m.undhirabali.ac.id

WELCOME MESSAGE

Om Swastyastu.

On behalf of the Advisory Board, Steering Committee, Scientific Committee, and Organizing Committee, I would like to welcome all researchers, academicians, practitioners, and students to the First International Conference on Fundamental and Applied Research (I-CFAR) 2019. This conference is organized by Universitas Dhyana Pura to promote, promote, strengthen and mainstream research outputs in various fields of disciplines and to provide a venue for sharing and discussing relevant research issues topics in a scholarly and friendly environment. It aims to bring together national and international experts, researchers, practitioners and policy makers from different related interests and backgrounds to share, discuss and demonstrate their ideas, experiences, research work and products and recommend future research of new and advances science and technologies. This year's focal theme is the "Multidisciplinary Research on the Transformational Effects of Tourism."

Tourism, indeed, is an important area of concern for many regions around the world—including Indonesia and Bali in particular. Tourism has the capacity to transform a community, as we have seen over the decades here in Bali. Tourism has an enormous impact on the world, which becomes the core topic for this year's I-CFAR. We welcome all participants to share their research and perspectives on tourism-related issues and other current issues to not only publicize the outputs of their scholarly research, but also create a positive impact for our respective communities, and for the world in general.

I would like to extend my gratitude to all who have participated in this conference. Firstly, to our keynote speakers from the Ministry of Research, Technology, and Higher Education—Republic of Indonesia, from the Ministry of Tourism—Republic of Indonesia, and from Heilbronn University Germany. Thank you for sharing your insights to all the participants. Thank you to the Advisory Board and Steering Committee from the Rectorate of Universitas Dhyana Pura for your guidance and support. I truly appreciate all the efforts by the esteemed Scientific Committee and the very productive Organizing Committee. Ultimately, I would like to thank all the participants who have joined this conference from various disciplines and countries. Matur Suksma.

Bali, 7 October 2019
Putu Chris Susanto
Conference Chair

WELCOME AND OPENING SPEECH ON INTERNATIONAL CONFERENCE ON FUNDAMENTAL AND APPLIED RESEARCH
7th October 2019
Universitas Dhyana Pura, Grand Inna Bali Beach, Sanur, Bali

Dr. I Gusti Bagus Rai Utama

Assalamu'alaikum Warahmatullahi Wabarakatuh,
Salam Sejahtera Bagi Kita Semua,
Shalom,
Om Swastiastu Om,
Namo Buddhaya,
Salam Kebajikan

Good Morning,
Our Key Speakers,
Dr. Anang Sutono, MM.Par, CHE: Senior Advisor to The Minister on the Economy and Tourism Destination – Ministry of Tourism, Republic of Indonesia.
Prof. Dr. Martina Shakya: Program Director of MA in Sustainable Tourism Development – Heilbronn University
Prof. Dr. Ocky Karna Radjasa, M.Sc. Director of Research and Community Development – Ministry of Research, Technology, and Higher Education, Republic of Indonesia
Prof. Dr. Varsha Vijayrao Tapre: Head of All India Coordinated Research Project, Nagarjun Medicinal Plants Garden.
Dr. dr. Made Nyandra, Sp. Kj, M.Repro, FIAS: Former Rector of Universitas Dhyana Pura.

Welcome to Bali.
Ladies and Gentlemen,
We are very happy to welcome you for the event of International Conference on Fundamental and Applied Research 2019. Taking this opportunity, I wish you also a friendly welcome and a pleasant time in Bali. Dhyana Pura University is known since long times ago as Dhyana Pura College of Management or Dhyana Pura Hotel and Tourism Center since 1987.

Tourism sector, indeed, is an important sector of concern for many regions around the world, including Indonesia and also Bali where we are now. Tourism has positve impact on the world, which becomes the core topic for this year's I-CFAR.

ISBN: 978-602-53420-4-2

Ladies and Gentlemen,

This conference is hosted and organized by Universitas Dhyana Pura to promote, strengthen and mainstream research outputs and outcome in multidiscipline for sharing and discussing relevant and related research issues in a scholarly event. It aims to bring together national and international experts, researchers, practitioners and policy makers from different related interests and backgrounds to share, discuss and demonstrate their ideas, experiences, working paper and products and recommend future research of new and advances science and technologies.

I wish you to enjoy the seminar and conference.

Thank you very much.

Wassalamu'alaikum Warahmatullahhi Wabarakatuh,
Salam Sejahtera Bagi Kita Semua,
Shalom,
Om Santih Santih Santih Om,
Namo Buddhaya,
Salam Kebajikan

Bali, 7 October 2019

I Gusti Bagus Rai Utama
President/Rector

ISBN: 978-602-53420-4-2

INTERNATIONAL CONFERENCE ON FUNDAMENTAL AND APPLIED RESEARCH (I-CFAR)
MULTIDISCIPLINARY RESEARCH ON THE TRANSFORMATIONAL ASPECTS OF TOURISM

PROGRAM FOR 7 OCTOBER 2019
Grand Inna Bali Beach, Sanur, Bali

Time	Agenda	PIC	Venue
07.00 – 09.00	Registration	Committee	Bali Hai Meeting Room (10th floor)
09.00 – 09.15	Opening and Welcoming Dance	Master of Ceremony	
09.15 – 09.25	Invocation and National Anthem	Rev. Dr. I Wayan Damayana, M.Si, MM.	
09.25 - 09.30	Welcoming Message from Vice Rector of Academic Affairs – Universitas Dhyana Pura	Dr. Ni Made Diana Erfiani, SS., M.Hum	
09.30 – 09.40	Opening Remarks from Rector of Universitas Dhyana Pura	Dr. I Gusti Bagus Rai Utama, SE., M.MA, MA.	
09.40 – 09.45	Introduction of Keynote Speakers	Putu Chris Susanto, MBA, M.Ed	
09.45 – 10.30	**Keynote speaker 1** Director of Research and Community Development – Ministry of Research, Technology, and Higher Education, Republic of Indonesia	Prof. Dr. Ocky Karna Radjasa, M.Sc.	
10.30 – 11.15	**Keynote speaker 2** Senior Advisor to The Minister on the Economy and Tourism Destination – Ministry of Tourism, Republic of Indonesia	Dr. Anang Sutono, MM.Par, CHE	
11.15 – 12.00	**Keynote Speaker 3** Program Director of MA in Sustainable Tourism Development – Heilbronn University	Prof. Dr. Martina Shakya	
12.00 – 12.10	Awarding of Certificate of Appreciation to Keynote Speakers	Committee	
12.10 – 13.30	Lunch	Committee	Bali Kopi Shop (2nd floor)
13.30 – 14.30	**Parallel Session 1 A**		Bali Hai Meeting Room (10th floor)
	Name	**Paper Title**	
	Hanif Adinugroho Widyanto*, Hari Suryanto, Adhi Setyo Santoso, Jony Oktavian Haryanto (*MODERATOR)	TOWARDS A "TOURISM VILLAGE": LESSONS LEARNED FROM DUSUN GUNUNG MALANG	

ISBN: 978-602-53420-4-2

	Listiyani Dewi H., Assrid, Shafira Primerianti, Alexandra Auliffe, Putri Vanezia R. M., Linda Sandy	LOCAL POPULATION PERCEPTION OF SEXUAL ATTRACTION TOWARDS FOREIGN TOURISTS IN BADUNG REGENCY	
	I Dewa Made Sutedja, Putu Sugi Kurnia Dewi, Dwi Sihwinarti	IMPACT OF TOURISM IN KUTUH, SOUTH KUTA FROM AN ECONOMIC SOCIO-CULTURAL AND ENVIRONMENTAL PERSPECTIVE	
	Gusti Ngurah Joko Adinegara, I Ketut Sirna, IWK Teja Sukmana	TOURISTS MOTIVATION TO VISIT TOURISM VILLAGE: A CASE STUDY ON GUMBRIH TOURISM VILLAGE – BALI	
	Jatmiko Wahyu Nugroho	DEVELOPING TOURISMPRENEURSHIP MODEL TO ENHANCE THE INNOVATIVE HUMAN RESOURCES IN INDUSTRIAL REVOLUTION 4.0	
13.30 – 14.30	**Parallel Session 1 B**		Breakout Rooms (2nd floor)
	Name	**Paper Title**	
	I Wayan Ruspendi Junaedi* (*MODERATOR)	NEW ROLE OF WORK ETHIC AND SOCIAL CAPITAL IN ECONOMIC TRANSFORMATION: CASE STUDY BLIMBINGSARI COMMUNITY	
	Ida Ayu Laksmita Sari	PROMOTING JAPANESE CULTURAL TOURISM THROUGH APPRECIATION OF AINU FOLKTALES	
	Heru Kristanto	THE EFFECT OF PROCEDURAL JUSTICE ON SERVICE-ORIENTED ORGANIZATIONAL CITIZENSHIP BEHAVIOR: TESTING A MULTILEVEL AND CROSS-LEVEL MODEL	
	Yeyen Komalasari	TRIPLE ROLES CONFLICT ON WOMEN'S CAREER PERFORMANCE: A LITERATURE REVIEW	
	Sony Heru Priyanto, Theresia Woro Damayanti, Rosaly Franksiska, Donald Samuel Slamet Santosa	HOW TO EXPLAIN WOMEN ENTREPRENEURS DEVELOP AND SUSTAIN THEIR BUSINESS (ETNOMETHODOLOGY IN BATIK SME)	
	R. Tri Priyono Budi Santoso, I Wayan Ruspendi Junaedi, Sony Heru Priyanto, Daniel Samuel Slamet Santosa	THE APPLICATION OF ENTREPRENEURIAL LEARNING MODEL FOR DEVELOPING STUDENT STARTUPS IN UNIVERSITAS DHYANA PURA	
13.30 – 14.30	**Parallel Session 1 C**		Breakout Rooms (2nd floor)
	Name	**Paper Title**	

	Elizabeth Prima*, Putu Indah Lestari (*MODERATOR)	THE IMPLEMENTATION OF TOKEN ECONOMY TO IMPROVE THE RESPONSIBILITY OF EARLY CHILDHOOD'S BEHAVIOR	
	Advent Krisna Setyawan Plaikoil, Ni Made Pujani, I Nyoman Tika	THE EFFECT OF 5E LEARNING CYCLE MODEL ON PROBLEM SOLVING ABILITY IN TERMS OF STUDENT NUMERICAL ABILITY	
	Putu Indah Lestari, Elizabeth Prima	EDUCATIONAL TOUR IN DENPASAR TRAFFIC PARK FOR EARLY CHILDHOOD	
	Christiani Endah Poerwati, I Made Elia Cahaya, Ni Made Ayu Suryaningsih	INTRODUCTION TO SCIENCE IN EARLY AGE CHILDREN WITH COOPERATIVE LEARNING MODEL JIGSAW TYPE ASSISTED WITH CONCRETE OBJECTS	
	Ni Ketut Jeni Adhi	DESCRIPTION OF CHILDREN'S DEVELOPMENT THAT EXPERIENCED SPEECH DELAY AFTER FOLLOWING BEHAVIORAL THERAPY	
	Ni Nyoman Ari Indra Dewi	COPING STRESS FOR OVERCOMING ANXIETY IN PARENTS OF CHILDREN WITH SPECIAL NEEDS	
14.30 – 15.30	**Parallel Session 2 A**		Bali Hai Meeting Room (10th floor)
	Name	**Paper Title**	
	Gusti Ayu Diliana Saraswati Devi, Agnes Utari Hanum Ayuningtias*, Listiyani Dewi Hartika, Made Prabhanika Rahayu Dharmeswari (*MODERATOR)	SPIRITUAL TOURISM, COPING, AND HAPPINESS AMONG MEMBERS OF INTERNATIONAL SOCIETY FOR KRISHNA CONSCIOUSNESS (ISKCON) IN BALI	
	Hari Suryanto, Hanif Widyanto, Adhi Setyo Santoso, Jony Oktavian Haryanto	DISCOVERING THE LOCAL WISDOM FOR TRADITIONAL WEAVING FABRIC AND PANJI PUPPET AT DUSUN GUNUNG MALANG	
	Hari Suryanto, Hanif Widyanto, Adhi Setyo Santoso, Jony Oktavian Haryanto	MEDIA FILM TO REPRESENT THE POTENTIAL OF ART AND CULTURE IN A REGION BY USING TECHNOLOGICAL CONVERGENCE	
	I Gusti Ketut Purnaya, I Made Trisna Semara, Ni Luh Supartini	TEMPLE ARCHITECTURE AS TOURISM ATTRACTION WITH GREEN DESTINATION CONCEPT AT BADUNG RIVER	
	Nyoman Trisna Aryanata, Putu Ayu Aryasih	NATURAL DISASTER AND VOLUNTOURISM: AN OVERVIEW BASED THE PHENOMENON OF MOUNT AGUNG ERUPTION	

ISBN: 978-602-53420-4-2

	I Gusti Bagus Rai Utama, Christimulia Puranama Trimurti	INVESTIGATION OF AGRITOURISM ATTRACTION IN CONSERVATION AREA PELAGA BADUNG BALI, INDONESIA	
14.30 – 15.30	**Parallel Session 2 B**		Breakout Rooms (2nd floor)
	Name	**Paper Title**	
	Ni Made Ria Indriyanthi, Ni Nyoman Tri Sukarsih* (*MODERATOR)	CORRESPONDENCES OF CONCEPTUAL METAPHOR AND MAPPING CONCEPTUAL ON ADVERTISEMENT: A COGNITIVE LINGUISTIC APPROACH	
	Ni Putu Dyah Krismawintari, I Gusti Bagus Rai Utama, I Wayan Ruspendi Junaedi	INVESTIGATION OF THE IMPLEMENTATION OF COMMUNITY BASED TOURISM PRINCIPLES ON JATILUWIH TABANAN BALI	
	Nurrahman Andrianto, Mutsunori Tokeshi	SATELLITE IMAGERY FOR CORAL REEF MONITORING: ASSESSING ITS POTENTIAL	
	Paula Dewanti, I Made Bali Merta Yasa, I Kadek Mardianta	MANAGING WASTE THROUGH TECHNOLOGY UTILIZATION	
	Gerson Feoh, Christian Tonyjanto, Rheza Paleva Wiryadikara	ANALYSIS OF CANOE MODEL'S EXTENT OF SATISFACTION AND EXTENT OF DISSATISFACTION IN THE IMPLEMENTATION OF AUGMENTED REALITY LEARNING IN BALINESE SCRIPT	
14.30 – 15.30	**Parallel Session 2 C**		Breakout Rooms (2nd floor)
	Name	**Paper Title**	
	I Gede Widhiantara*, Wayan Putu Sutirta Yasa (*MODERATOR)	HYPERLIPIDEMIA INDUCES DEGENERATION OF SPERMATOGENIC AND LEYDIG CELLS: A REVIEW	
	Purwaningtyas Kusumaningsih, Ni Made Ria Sanistya Kusuma, Luh EkaRahayu Ambarawati, and Chrissanti Banimema	THE EFFECT of CHITOSAN IN MACKEREL TUNA (Euthynnus affinis) BRINE SHREDDED AGAINTS HALOPHILIC BACTERIA	
	Nyoman Sudarma, Ni Luh Nova Silisca DP, Diah Prihatiningsih	BEHAVIOR LEVEL OF KNOWLEDGE, ATTITUDE, AND ACTION OF CONSUMERS IN PESTICIDE RESIDUES ON VEGETABLES AND FRUITS FOR SALE IN BADUNG MARKET DENPASAR	
	Indah Pramita	SQUARE STEPPING EXERCISE IMPROVE SHORT-TERM MEMORY IN ELDERLY	
	Luh Putu Ayu Vitalistyawati, Ni Luh Destarini, I Made Yoga Parwata	CORRELATION BETWEEN BODY MASS INDEX AND CARDIORESPIRATORY ENDURANCE ON	

ISBN: 978-602-53420-4-2

		BALLERINAS	
	I Putu Darmawijaya	CONGKLAK MODIFICATION TO IMPROVE FINE MOTOR SKILLS IN CHILDREN WITH DOWN SYNDROME	
15.30 – 15.45	Coffee Break		
15.45 – 16.45	**Parallel Session 3 A**		Bali Hai Meeting Room (10th floor)
	Name	**Paper Title**	
	Anita Bogar, Ni Luh Christine P. Suyasa*, Putu Chris Susanto, Putu Chrisma Dewi (*MODERATOR)	INDIVIDUAL AND CULTURAL DIFFERENCES IN SHAPING THE INTERACTION BETWEEN GERMAN AND INDONESIAN EXCHANGE STUDENTS	
	I Gede Neil Prajamukti Wardhana	ENGLISH LANGUAGE NEEDS OF RESTAURANT WAITERS & BARS: TARGET SITUATION ANALYSIS	
	I Ketut Surata	STUDENTS' PREFERENCE FOR EFFECTIVE TEACHING METHODS IN TOURISM EDUCATION: BEST PRACTICE OF ACTION RESEARCH IN CASE OF HOSPITALITY BUSINESS DEPARTMENT, BALI TOURISM INSTITUTE	
	Gek Wulan Novi Utami, Ni Luh Desy Suari Dewi	BUILDING ENGLISH VOCABULARY FOR COOKING THROUGH SEMANTIC FEATURE ANALYSIS STRATEGY	
	Ni Luh Desy Suari Dewi	STYLISTIC FEATURES OF TOURISM OBJECT ADVERTISEMENT IN BALI	
	Putu Chrisma Dewi	INDONESIAN TOURISM DESTINATION TAGLINE PROMOTION: SEMIOTICS STUDY	
15.45 – 16.45	**Parallel Session 3 B**		Breakout Rooms (2nd floor)
	Name	**Paper Title**	
	Antonia Kutschenreuter, Ni Made Diana Erfiani*, Putu Chris Susanto, Maria Regina (*MODERATOR)	MARKETING STRATEGY FOR KOPI JEMPOLAN BRAND OF CATUR VILLAGE KINTAMANI	
	Putu Chris Susanto, I Wayan K Teja Sukmana, Dylla Hanggaeni Dyah Puspaningrum	MENU PLANNING AND PRODUCT DEVELOPMENT FOR SINGLE ORIGIN COFFEE SHOP IN CATUR VILLAGE KINTAMANI BALI	
	I Ketut Sirna, Gusti Ngurah Joko Adinegara	THE PERCEPTION MODEL OF CUSTOMER SATISFACTION IN TERMS OF SERVICE QUALITY	

	I Wayan Ruspendi Junaedi, I Wayan Damayana, Dermawan Waruwu	LPD EXISTENCE AND FUNCTION IN INCREASING THE BALI COMMUNITY ECONOMY	
	Luh Diah Citra Resmi Cahyadi	FINANCIAL LITERACY LEVEL ANALYSIS AMONG COLLEGE STUDENT IN DHYANA PURA UNIVERSITY	
	Ni Luh Putu Sri Purnama Pradnyani	CAR, BOPO, AND INFLATION AS PREDICTORS PROFITABILITY	
15.45 – 16.45	**Parallel Session 3 C**		Breakout Rooms (2nd floor)
	Name	**Paper Title**	
	I Made Widnyana, Gerson Feoh*, Bambang Hadi Kartiko (*MODERATOR)	SIPRO MEDICAL RECORD AS EXCHANGE PROJECT PILOT DATA MEDICAL RECORD (INTEROPERABILITY) HOSPITAL IN BALI	
	Kadek Ayu Cintiya Marditayanti, Gerson Feoh, Bambang Hadi Kartiko	THE DESIGN OF INTEROPERABILITY MEDICAL RECORD INFORMATION SYSTEM AS PART OF HOSPITAL ADDITIONAL SERVICE	
	Nyoman Ngurah Adisanjaya, Ni Kadek Dwipayani Lestari	SPATIAL ANALYSIS OF CASES of HIV / AIDS BALI IN THE YEAR 1987 - 2018	
	I Putu Dedy Kastama Hardy, Ni Luh Gde Ari Natalia Yudha	IMPLEMENTATION OF PATIENT SAFETY CULTURE ON EMPLOYEE PERFORMANCE AND DOCTOR COMPLIANCE IN THE IMPLEMENTATION OF SIX STEPS OF FIVE WASHING MOMENTS IN OUTPATIENT ROOM, WANGAYA HOSPITAL, DENPASAR CITY	
	Ni Made Diaris, Agus Donny Susanto	DESCRIPTION AGE AT MENARCHE AND READINESS FOR MENSTRUATION OF CHILDREN AGED BETWEEN 10 AND 11 YEARS	
	Gabriel Firsta Adnyana, Agus Tommy Adi Prawira Kusuma	ANALYSIS OF USER SATISFACTION TOWARDS OF DHYANA PURA UNIVERSITY WEBSITES USING THE WEBQUAL 4.0 METHOD	
16.45 – 17.45	**Parallel Session 4 A**		Bali Hai Meeting Room (10th floor)
	Name	**Paper Title**	
	Rahmadi Prasetijo* (*MODERATOR)	A QUANTITAVE PRESPECTIVE OF DIVERS PERCEPTION AS INPUT FOR MANAGING TULAMBEN DIVING TOURISM DESTINATIONS IN BALI, INDONESIA	

	Dermawan Waruwu, Ni Made Diana Erfiani, I Putu Darmawijaya, Natalia Sri Endah Kurniawati	HARMONY OF CHINESE AND BALINESE ETHNIC GROUPS AS A TOURIST ATTRACTION IN CATUR VILLAGE KINTAMANI BALI	
	Aulia Iefan Datya, Agus Tommy Adi Prawira Kusuma, I Putu Ryant Mahardita	IMPLEMENTATION OF LOCATION BASE SERVICE ON WATERFALL ATTRACTION IN BALI USING ANDROID APPLICATION	
	Jatmiko Wahyu Nugroho	IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE IN THE ERA OF TOURISM 4.0	
	I Wayan Wahyu Wiadnyana, IWK Teja Sukmana,Putu Chris Susanto, Dylla Hanggaeni Dyah Puspaningrum"	THE EFFECT OF COMPENSATION, MOTIVATION, WORK DISCIPLINE AND WORK ENVIRONMENT ON HOUSE KEEPING STAFF PERFORMANCE AT LV 8 RESORT HOTEL	
	I Wayan Wardita Pratama, Komalawati	THE INFLUENCE OF COMPENSATION AND EMPLOYEE'S EMPOWERMENT LOYALTY THROUGH JOB SATISFACTION IN BALI PALMS RESORT CANDIDASA BALI HOTEL	
16.45 – 17.45	**Parallel Session 4 B**		Breakout Rooms (2nd floor)
	Name	**Paper Title**	
	Sarah Zeckel, Putu Chris Susanto*, Ni Made Diana Erfiani (*MODERATOR)	MARKET POTENTIAL OF CASCARA TEA FROM CATUR VILLAGE KINTAMANI BALI	
	Dylla Hanggaeni Dyah Puspaningrum, Ni Luh Utari Sumadewi, Putu Chris Susanto, IWK Teja Sukmana	"THE CAPACITY AND ACTIVITY OF ANTIOXIDANTS IN ARABICA COFFEE CHERRY SKINS (Coffea arabika L.)	
	I Gede Mustika, Adella Kumala Dewi, Resti Kusumarini Samben	THE RELATIONSHIP OF ENERGY AND PROTEIN INTAKES WITH ADOLESCENTS NUTRITION STATUS IN LKSA WIDHYA ASIH BADUNG	
	Resti Kusumarini Samben, Adella Kumala Dewi, I Gede Mustika	INTAKES OF CALCIUM, IRON, FIBER, AND NUTRITIONAL STATUS OF ADOLESCENT IN LKSA WIDHYA ASIH BADUNG	
	Ni Putu Eny Sulistyadewi, Ni Putu Ratih Linggayoni, Resti Kusumarini Samben	DIFFERENCES IN PROTEIN, VITAMIN C, AND FE INTAKE IN ADOLESCENT GIRLS BY GIVING FE AND VITAMIN C TABLETS	
	Ravi Masitah	SODIUM INTAKE IN HYPERTANSIVE PATIENTS IN RSUD dr. M. YUNUS	

		BENGKULU	
16.45 – 17.45	**Parallel Session 4 C**		Breakout Rooms (2nd floor)
	Name	**Paper Title**	
	Ni Kadek Yunita Sari*, Ni Wayan Deswiniyanti, Dewa Gede Inggi Permana	THE POTENTIAL OF Plumeria acuminata FLOWER EXTRACTS AS AN ANTIFUNGAL OF Candida albicans	
	Anak Agung Ayu Putri Permatasari, I Gede Widhiantara, I Putu Gede Galih Darmayasa	EFFECTIVENESS OF LEMON JUICE (Citrus limon (L.) Burm. f.) TO TOTAL OF BACTERIA, Coliform AND Escherichia coli IN GIANT PRAWNS (Macrobrachium rosenbergii)	
	Ni Ketut Maya Komala Apriliyani, Gerson Feoh, Bambang Hadi Kartiko	MEDICAL RECORD DIGITALIZATION DESIGN OF NATURAL DISASTERS PATIENTS AT DISASTER-PRONE HOSPITAL	
	Putu Lidya Novita Mahayekti, Gerson Feoh, Bambang Hadi Kartiko	DEVELOPMENT OF INTEROPERABILITY OF MEDICAL RECORDS IN INFORMATION SYSTEMS AS A SERVICE BETWEEN INSTITUTIONS OUTSIDE THE HOSPITAL (CASE STUDY: WANGAYA GENERAL HOSPITAL)	
	I Gusti Ayu Agung Sinta Diarini, I Wayan Suryanto	APPLICATION OF SMALL GROUP DISCUSSION LEARNING MODEL IN INCREASING THE YIELDS OF CATFISH PRODUCTION USING BIOFLOCK SYSTEM IN ABIANSEMAL BADUNG	
	Natalia Sri Endah Kurniawati, I Made Endra Puniawan, Ida Bagus Kurniawan	Consideration of using of brokerage services in buying a second car	
17.45 – 18.00	Closing and Awarding of Certificates	Committee	Rama Sita Meeting Room (1st floor)
18.00 -	Dinner (all participants)	Committee	

ISBN: 978-602-53420-4-2

TABLE OF CONTENTS

ISBN: 978-602-53420-4-2

EXISTENCE OF BETAWI REMPUG COMMUNITY ORGANIZATION IN PRESERVING LOCAL WISDOM AND SOCIAL HARMONY IN JAKARTA

I Wayan Damayana[1], I Wayan Ruspendi Junaedi[2], Dermawan Waruwu[3]

[1,3]Program Studi Psikologi; [2]Program Studi Manajemen, Universitas Dhyana Pura
Email: damayana@undhirabali.ac.id[1]*; ruspendijunaedi@undhirabali.ac.id[2]; dermawanwaruwu@undhirabali.ac.id[3]

ABSTRACT

The presence of mass organizations so far in each region is considered negative by the community and the government because of its anarchist actions and arrogance. The existence of the Betawi Rempug Forum (FBR) in Jakarta and its surroundings actually received support from the community and the government because of its work programs and actions to protect the social, cultural, economic, and political life of the Betawi people and other surrounding communities. The problem examined in this article is how the form of the existence of FBR organizations in maintaining local wisdom and social harmony in Jakarta. This study was examined using a qualitative method with a phenomenological approach that uses grounded theory and data collection techniques through participant observation and depth interviews with community leaders and the government in Jakarta. The aim is for mass organizations to play an active role in maintaining social harmony and national integration in all regions of Indonesia. The results of this study are the FBR organizations become constructive organizations in preserving Betawi culture and maintaining the peace of the Papuan people. Changes in constructive CSO behavior have a positive impact in building peace and social harmony in a pluralistic society.

***Keywords**: The existence of mass organizations; Betawi Rempug Forum, Peace and Social Harmony.*

1. Introduction

The presence of community organizations (CSOs) in an area aims to facilitate and protect the rights of community members in the region. The number of mass organizations in Indonesia registered with the government in 2018 is around 390,293 organizations (Indonesian Ministry of Law and Human Rights, 2018). The establishment of a mass organization has a legal basis regulated in Indonesia, namely the 1945 Constitution and Law Number 17 of 2013 concerning social organizations (Law Number 17, 2013). This legal basis legitimized the formation of the Betawi Rempug (FBR) mass organization in Jakarta and surrounding areas. The establishment of the FBR mass organization aims to provide protection and peace for the Betawi community and other surrounding communities.

The rise of the Betawi community began to appear since the emergence of a "Betawi" organization called the Betawi Rempug Forum (FBR). The early Betawi people were historically known in three groups, namely the urban Betawi community, the Betawi community near the city, and the Betawi community in the villages (Chaer, 2015). The existence of this community emerged through FBR organizations, although not yet fully felt by the Betawi community as a whole. The social, cultural, economic, and political life of the Betawi people is marginalized by infrastructure development that does not care about local wisdom. The Betawi people are slowly being left out by government policies and the onslaught of migrants.

The marginalization of the Betawi people became the forerunner to the formation of the Betawi Rempug Forum (FBR) organization. FBR Ormas was established on Sunday Legi, 8 Rabiul Tsani 1422 Hijri, which was on 29 July 2001 AD. The founder figure of the FBR organization came from a young Betawi cleric at the "Zidatul Mubtadi'ien" Orphanage Islamic Boarding School in Cakung, East Jakarta. The strong desire of the Betawi people through their young leaders to get out of social, cultural, economic, and political pressure has the support of other Betawi people in Jakarta, Bogor, Depok, Tangerang, and Bekasi. This support shows the extent of this CSO area as shown in Figure 1 below.

Figure 1. Symbol of the Betawi Rempug Forum
(Documents: Photo of Damayana Research, 2019)

Figure 1 confirms that FBR organizations have formed branches or branches in Java, specifically in Jakarta, Bogor, Depok, Tangerang, and Bekasi, abbreviated as "Jabodetabek". The spread of the FBR organization provides legitimacy and strength of identity for the mass organization to the surrounding community. This legitimacy also shows the existence of identity politics for the existence of this organization, so that it is respected or taken into account in the Greater Jakarta area (Putra, 2011). Community support for FBR mass organizations is based on the alignment of the social, cultural, political, and economic life of the Betawi community. This relatively new organization has received sympathy from various groups because of its social programs and the leadership style of its leaders who reach the lowest strata of society. The FBR organization as a local mass organization is increasingly known for its popular movements and the world recognizes its existence.

The FBR organization through its work program seeks to elevate the existence, dignity, and dignity of the Betawi community to be equal with other communities in Jakarta. They have a strong desire for all Betawi people to be effective and host in their own villages through professional and proportional competition. Betawi people struggle

ISBN: 978-602-53420-4-2

to develop their potential individually or in groups, so that their fate and future can be taken into account in the structural and cultural arenas in the Unitary State of the Republic of Indonesia.

Based on the phenomena experienced by the Betawi community for years in Jakarta, this article discusses the existence of the Betawi Rempug Forum (FBR) organization in maintaining local wisdom and social harmony in Jakarta. The main subject in this article is the Betawi Rempug Forum in Jakarta and surrounding areas. This organization is legally registered with the Provincial Government of DKI Jakarta and its leaders are religious figures who are educated, influential in the community, and work in government institutions. The problem of the existence of this FBR organization was examined using qualitative methods with a combination of descriptive design, phenomenology, and grounded theory and data collection techniques through participant-observation, depth interviews, literature review, case studies, and documentation (Moleong, 2010). This method was chosen to find out deeply about the existence of FBR organizations in maintaining peace and social harmony in the midst of plural society in Jakarta in particular and Indonesia in general.

The study of the existence of FBR mass organizations in Jakarta aims to provide an understanding to the community about the existence of mass organizations in maintaining peace and social harmony in the midst of plural society. The presence of this FBR organization can be empowered to become a model of social harmony and national integration in order to bring about peace and the spirit of diversity in all regions in Indonesia. The new findings in this research are the FBR organization which is a place for the Betawi people to fight for their constitutional, social, cultural, economic and political rights and pioneers of reconciliation amid the turmoil of conflict and intolerance in Jakarta in particular and Indonesia in general. The form of the existence of FBR organizations is shown in two ways, namely preserving Betawi culture and pioneering reconciliation for the people of Papua. The behavior of FBR mass organizations became an example for other mass organizations throughout Indonesia so that the presence of mass organizations became a protector for the people in their respective regions in order to create national integration and social harmony.

2. Results and Discussion

The existence of the Betawi Rempug Forum (FBR) organization in maintaining local wisdom and social harmony in Jakarta and its surroundings is shown in 2 (two) forms, namely preserving Betawi culture and pioneering Papuan peace. The two forms of existence of the FBR organization are described below.

a. **Betawi cultural preserver**

The establishment of the FBR organization was not just a mass organization in general, but the FBR was born in response to the exclusion of the Betawi people who were at the same time culture in the midst of the modernization of Jakarta. The word rempug in Betawi culture is interpreted as togetherness, brotherhood, getting along, deliberation, cooperation, mutual cooperation, and unity. Rempug in togetherness by upholding the ties of friendship. Kerempugkan is a characteristic of this organization, so that it can be manifested and implemented in the daily actions of its members. The term "rempug" is a strategy of identity politics so that the Betawi people feel they own this organization and provide social, economic, cultural and political support (Putra, 2011). The function of this mass organization is to foster sincerity, togetherness, and responsibility to fight for the rights and aspirations of Betawi citizens. Although threats, disturbances, obstacles, and challenges come from within, through infiltration from the outside, one after the other, FBR remains strong and stands tall to always work and be creative in the spirit of FBR's (FBR minded).

The history of the journey and struggle of the FBR still requires a lot of time and continuous effort in building its civilization in the midst of rapid changing times. Changes in science, technology, culture, social, politics and economics, prove how FBR is the time to organize and renew the leadership management system by continuously improving the quality of human resources of members who are strong, reliable and able to compete in facing the challenges of change in the present and future with Damage basis. Changes that are not matched and accompanied by reliable quality human resources and good management will certainly have a negative impact on the body of the organization based on tradition, local culture, religion, and society. FBR organizations in the existence and development of their organizations in Jakarta continue to prioritize noble moral ethical values in the context of contemporary kebetawian culture. This can be seen from their openness to migrant communities and the progress of the modern city.

The spirit of preserving Betawi culture through FBR organizations can be seen from the organization's vision, mission and goals. FBR's vision is to optimize the organization's role towards social welfare and justice as well as upholding the law for the Betawi people and other communities. Its mission is (a) to realize and nurture Betawi people who are aware of the law and practice noble morals; and (b) fight for the aspirations of the Betawi people towards the establishment of law and justice so as to create community stability, security and order. The spirit contained in this vision-mission is integrated with the objectives of the FBR organization to preserve the culture or local wisdom of the Betawi people as described below.

ISBN: 978-602-53420-4-2

1) Fostering strong fraternal relationships between fellow Betawi people and other communities for the creation of a safe, comfortable, peaceful, and happy life in the world and the hereafter.
2) Fostering cooperative relations with the government and others in carrying out efforts to empower the community for the achievement of social welfare.
3) Improve the quality of Betawi community resources through education and skills training as well as job distribution.
4) Increasing the role of Betawi people in various aspects of life.
5) Preserve and develop Betawi cultural arts as part of national culture.
6) Carry out Amar Ma'ruf and Nahi Munkar in accordance with religious teachings.

The aims and vision and mission of the FBR mass organization are implemented through the formation of various organizational networks (wings), namely the FBR Guard, FBR Young Barisan, FBR Youth Association (FBR Young Entrepreneurs Association), FBR Echo (FBR Student Movement), Sarbeni Rempug (FBR Disaster Response) , and "Junet", the FBR internet manager. This organizational network as a form of militancy by FBR organizations is constructive, educative, and cultured. All forms of cultural injustice and marginalization created by individuals and other community groups are monitored through the network of FBR organizations. In addition, this network functions to ground Betawi organizations in the context of cultural preservation in various normal activities as shown in Figure 2 below.

Figure 2. Papuan Dance Dances Staged in Jakarta
(Document: Photo of Damayana Research, 2019)

ISBN: 978-602-53420-4-2

Figure 2 confirms that FBR organizations care about the preservation of Betawi culture. The 2019 milad celebrations in Jakarta feature various cultural attractions such as silat, dances, rhymes, cokek, lenong, shadow puppets, and ondel-ondel dance. This cultural performance is a behavior of FBR organizations and Betawi young people who are biologically driven and stimulated from outside and within the group (Marliani, 2015); (Meinhold and Malkus, 2005). The performance of this cultural attraction aims to provide education to the general public and the Betawi young generation so that they will continue to preserve ancestral culture as the glue of national unity. This can be seen from the involvement of every child in these cultural attractions. They are able to do silat and other dances with various agility techniques even though they are only 10-15 years old. Silat culture for Betawi people aims to protect themselves and others (Chaer, 2015).

The existence of FBR organizations is not only at the level of social organizations, but these organizations care about the preservation of Betawi culture. This concern is based on the understanding that each culture is a force and mind born from the local community (Koetjaraningrat, 2009). It is this spirit that makes the government and other people who live in harmony in Jakarta sympathize with the FBR organization. The presence of FBR organizations is not identical or the same as other anarchist mass organizations in several regions in Indonesia. Thus, FBR as a social organization that is cultured, ethical, and characterized in order to achieve social harmony and national integration.

a. Pioneer of Indonesian peace

Integrating the potential in togetherness, the Betawi Rempug Forum (FBR) dared to appear to be a function of control over injustice in all aspects of life in society, nation and state, both in the political, legal, economic and moral fields. FBR with its vision and mission and programs, clearly wants to uphold the dignity and values of its people in their own homeland as an end in the form of welfare of peace for their members and sympathizers who care to advance and grow FBR with nationalist spirit and socio-cultural concern.

The FBR organization was formed from a "heterogeneous" social community, the capital city of Jakarta and surrounding areas. All ethnic groups, religions, and cultures developed rapidly in the middle of the Betawi tribal community. There are quite a lot of Papuans who work or study in Jakarta and surrounding areas. The existence of Papuans in Jakarta and surrounding areas automatically interacts with various communities throughout Indonesia, specifically the Betawi tribe.

FBR militant mass organizations against all forms of injustice that occur to the Betawi people and other communities in Indonesia. Militancy as a form of one's consistency and commitment in behaving positively. This mass organization militancy has encouraged and at the same time become a value shared by all FBR members. The FBR organization became a mass organization that continued to emphasize the struggle for religious values and Betawi culture which was tolerant, inclusive and peaceful. The positive behavior of the FBR organization was encouraged because of the stimulus or the response back from other people or groups in the surrounding community (Rogoff, 2003).

The application of positive values from FBR organizations was seen in their attitude in accepting us as researchers in their communities during 2019 in Jakarta and surrounding areas. The FBR organization showed an attitude of nationalism and brotherhood, starting from the highest leadership to the members in the branches. Militancy, nationalism and social care from FBR organizations are increasingly visible at the 18th anniversary celebration on September 8, 2019 at Kemayoran Blok C Pintu 2 in Central Jakarta. The celebration of this milid has the theme: "Caring for Reason and Brotherhood in the Middle of the Polarization of the People" This theme is closely related to militancy, nationalism attitudes, and social care of FBR organizations to all situations that occur in the Indonesian nation such as intolerance, radicalism, racism issues (the problem of Papua), and the development of hoaks in society.

The FBR Community Organization, which is considered a young organization in Indonesia, received positive responses from the community and the government for its attitude towards nationalism and social care. The 18th anniversary celebration was attended by thousands of people, members of the Jabodetabek FBR, FBR leaders, and other invited guests. Government support for FBR mass organizations is aimed at the presence of government apparatuses in the milad, namely DKI Jakarta Governor Anies Baswedan, Metro Jaya Police Chief, Jaya Military Commander, Mayor, Head of Service, TNI, Polri, and others.

The militancy and concern of FBR organizations towards social harmony and national integration is demonstrated by the declaration of peace and the rejection of racism towards the people of Papua throughout Indonesia. The concern of this organization is a local wisdom of the Betawi people, so that local wisdom becomes a social capital in bringing together civil society and social harmony (Suryawan, 2017). The spirit of nationalism became a serious concern of FBR organizations by raising the tagline "Sayang Papua" at the celebration of the milad in Jakarta. The atmosphere of joy and sense of brotherhood of the people of Papua is shown through the Papuan dance as shown in Figure 3 below.

Figure 3. Papuan Dance Dances Staged in Jakarta
(Document: Photo of Damayana Research, 2019)

Figure 3 confirms that the Papuan people are protected by FBR organizations in Jakarta and surrounding areas. The dance performed by the younger generation from Papua shows that the Papuan people live in harmony in Jakarta. The Papuan people are Indonesian people who have the right to work in all regions of the country. Therefore, FBR organizations are obliged to protect the people from Papua and other communities who migrate in Greater Jakarta.

The attention and protection of FBR organizations to the Papuan community in Jakarta and in all other provinces was appreciated by one of the Papuan leaders who also attended the milad. The Papuan community figure gave the crown of honor to Kyai Haji Lutfi Hakim as the General Chairperson of the FBR and expressed his gratitude to the FBR mass organizations for his sympathies with the Papuan people. Mutual respect and harmony or equal braya in various cultural, religious and ethnic differences will create social harmony in the region (Aryana, 2017); (Damayana, 2011). Harmony between ethnic Betawi and Papuans as shown in Figure 4 below.

Figure 4. Declaration of Peace in Papua and Indonesia
(Document: Photo of Damayana Research, 2019)

Figure 4 confirms that FBR militant organizations are against injustice, reject racism against all ethnic groups, and safeguard the Unitary State of the Republic of Indonesia (NKRI). The presence of FBR organizations in Jakarta and its surroundings became a pioneer of peace in Indonesia. Religious tolerance and harmony between ethnic groups are social capital and cultural capital of the Indonesian people (Waruwu, 2017). The FBR CSO realizes that all human beings are their fellow human beings without distinguishing their origin. All ethnic groups are able to interact in the fast movement of society, so pluralism is the main asset in economic development and moral development of the Indonesian people.

Betawi people as core citizens (native to Jakarta) have many challenges in developing themselves in the midst of a pluralistic society, both in the political, socio-cultural, economic, religious and so on. The presence of FBR is expected to be able to raise the degree of the Betawi people in particular and the Indonesian people in general in all aspects of injustice in the City of Jakarta. The FBR mass militancy in Jabodetabek aims to be a preserver of the Betawi culture and a pioneer of peace in the midst of the diversity of Indonesian society. As such, Betawi organizations are militant and constructive models of social organizations to create social harmony and national integration.

3. Conclusions

The existence of Betawi Rempug Forum organizations in Jabodetabek received positive responses from the community and government officials. Organizations that have been considered as makers of commotion, arrogance, brutality, and anarchists have turned into organizations that care about culture and social harmony. The

ISBN: 978-602-53420-4-2

establishment of the FBR organization aims to provide solutions to the exclusion of the Betawi community amid modernization in the social, cultural, economic, political, and educational aspects. FBR CSOs struggle to provide knowledge to young people about the importance of cultural preservation or local wisdom. This local wisdom is the glue of social harmony and national integration. All Indonesian people must be protected by their constitutional rights. Thus, the existence of FBR organizations has a positive impact on the Betawi community and other communities in the territory of Indonesia.

Thank-you note

This article is the result of a 2019 applied research scheme grant funded by the Ministry of Research, Technology and Higher Education. Therefore, researchers would like to thank the Ministry of Research, Technology, and Higher Education and the University of Dhyana Pura Bali where the Higher Education Tridharma is held.

Reference

Aryana, I. G. M. (2017) 'Kuasa di balik harmoni: Etnografi Kritis Relasi Etnis Tionghoa dan Etnis Bali di Desa Pupuan, Tabanan, Bali', *Jurnal Kajian Bali*, 7(1), pp. 1–16. doi: https://doi.org/10.24843/JKB.2017.v07.i01.p01.

Chaer, A. (2015) *Betawi Tempo Doeloe: Menelusuri Sejarah Kebudayaan Betawi*. Catakan 1. Jakarta: Masup Jakarta.

Damayana, I. W. (2011) *Menyama Braya: Studi Perubahan Masyarakat Bali*. Salatiga: Fakultas Teologi, Universitas Kristen Satya Wacana.

Kementerian Hukum dan HAM RI (2018) *Forum Masyarakat Sipil Indonesia 2018 : Membangun Kapasitas Kemandirian Ormas*, *https://www.kemenkumham.go.id*. Available at: https://www.kemenkumham.go.id/berita/forum-masyarakat-sipil-indonesia-2018-membangun-kapasitas-kemandirian-ormas.

Koetjaraningrat (2009) *Pengantar Ilmu Anthropologi*. Jakarta: Rineka Cipta.

Marliani, R. (2015) *Psikologi Industri dan Organisasi*. Bandung: CV Pustaka Setia.

Meinhold, J. L. and Malkus, A. J. (2005) 'Adolescent Environmental Behaviors: Can Knowledge, Attitudes, and Self-Efficacy Make a Difference?', *Environment and Behavior*, 37(4), pp. 511–532. doi: https://doi.org/10.1177/0013916504269665.

Moleong, J. L. (2010) *Metodologi Penelitian Kualitatif*. Bandung: PT Remaja Rosdakarya.

Putra, I. N. D. (2011) 'Politik Identitas dalam Teks Sastrawan Bali', *Jurnal Kajian Bali*, 1(1), pp. 124–151. Available at: https://ojs.unud.ac.id/index.php/kajianbali/article/view/15601/10401.

Rogoff, B. (2003) *The cultural nature of human development*. Oxford: University Press. Available at: https://www.researchgate.net/publication/247823869_The_Cultural_Nature_of_Human_Development.

Suryawan, N. (2017) 'Kearifan lokal sebagai modal sosial dalam integrasi antara etnik Bali dan etnik Bugis di Desa Petang, Badung, Bali', *Jurnal Kajian Bali*, 7(1), pp. 17–32. doi: https://doi.org/10.24843/JKB.2017.v07.i01.p02.

UU Nomor 17 (2013) *Undang-Undang Republik Indonesia Nomor 17 tahun 2013 tentang Organisasi Kemasyarakatan*. Indonesia. Available at: http://www.dpr.go.id/dokjdih/document/uu/UU_2013_17.pdf.

Waruwu, D. (2017) 'Kawasan Puja Mandala Wujud Kearifan Lokal dan Destinasi Wisata Spiritual dalam Pengembangan Model Toleransi di Indonesia', *Vidya Samhita*, 3(1), pp. 15–25.

DISCOVERING THE LOCAL WISDOM FOR TRADITIONAL WEAVING FABRIC AND *PANJI* SHADOW PUPPETS AT *DUSUN* GUNUNG MALANG

Hari Suryanto[1], Hanif Adinugroho Widyanto[2], Adhi Setyo Santoso[3], Jony Oktavian Haryanto[4]

[1]School of Communication, President University; [2]School of Business, President University; [3]School of Business, President University; [4]School of Business, President University

Email: hanif@president.ac.id

ABSTRACT

The purpose of this research project was to discover the values of traditional weaving fabric and Panji shadow puppets to sustain the local culture and livelihood of the people living in Dusun Gunung Malang, Taman Ayu Village, West Lombok, Indonesia. This study used qualitative methods, namely in-depth interviews and field observations to get a comprehensive understanding of the phenomena being studied. The results showed that both the weaving fabrics and Panji shadow puppets were inherently teeming with deep-rooted local wisdom and could be used as a potential source of livelihood for the people of Dusun Gunung Malang through tourism development and local business ventures.

Keywords: *Weaving Fabric, Wayang Panji, Local Wisdom*

BACKGROUND

Dusun Gunung Malang is a small hamlet in *Taman Ayu* Village, West Lombok, West Nusa Tenggara, Indonesia. For many generations, this small village has passed down the creation of high-quality woven fabrics which is renowned in West Nusa Tenggara, particularly in the West Lombok Regency. In addition, there are also *Panji* shadow puppets (*wayang kulit*) craftsmen in the village which are considered as a hereditary profession and their products have been purchased by buyers throughout the country and even from abroad.

From the in-depth observation the researchers did in 2018, it is discovered that weaving fabric products and *Panji* puppets creation and performance in *Dusun* Gunung Malang have a deep-rooted local wisdom. For the weaving fabric, every motif has a distinct meaning and local wisdom. Likewise, the specific times that the fabrics are used/worn by the locals also contain certain cultural meanings. This has become part of their everyday norm and served as a unifier among the hamlet residents which is interesting to be further analyzed. Likewise, the *Panji* shadow puppets has become somewhat of a pride of the residents of *Dusun* Gunung Malang because it is the only one in existence in the entire West Lombok Regency. Furthermore, it even has not just local but also foreign customers.

This *Panji* shadow puppets is also bursting with local values that need to be further explored to enrich Indonesia's cultural treasures and also to be developed into local cultural products that can ultimately be commercialized.

Therefore, the purpose of this research project is to discover the values of traditional weaving fabric and *Panji* shadow puppets to sustain the local culture and livelihood of the people living in *Dusun* Gunung Malang, *Taman Ayu* Village, West Lombok, Indonesia by empowering young entrepreneurs. The objectives of this research project are two-fold: firstly, the researchers are interested in building up awareness of the local cultural values to the indigenous young generation, and to break the poverty chain among the indigenous society by empowering indigenous young generation with entrepreneurial skills and knowledge, especially during the natural disaster recovery phase in Lombok. This research project will employ a qualitative research method through in-depth interview using Critical Discourse Analysis to discover the new values of the traditional weaving fabric and *Panji* shadow puppets as their core cultural commodities.

This research project is crucial for their cultural sustainability and to provide indigenous people with sustainable income generated through their own local culture and tradition, especially in the aftermath of the 2018 earthquake in Lombok. Consequently, entrepreneurship capacity building and empowerment for the young generation within the age of 13 to 18 years old are needed in order to ensure that they are well aware about the underlying values of their traditional weaving fabric. Ultimately, by then, they could sustain their local culture going forward and promote as well as distribute the traditional weaving fabrics and Panji shadow puppets to the global market through e-commerce and other potential outlets in the future.

This research project focuses on discovering the principle values of traditional weaving fabric by formulating the local cultural concepts in order to support the livelihood of the people in *Dusun* Gunung Malang.

PROBLEM FORMULATION

The technological convergence that is happening today with the ease of accessing various kinds of information through the internet and social media causes an erosion of values and culture found in society, especially for the younger generation, and in turn changes the paradigm regarding the way the researchers think about culture. This can be seen from the entertainment programs that people consume, both through traditional and digital media, which offer many new perspectives on culture and its associated values, and are prone to erode the original culture and the local wisdom contained in it.

This was also experienced by residents in *Dusun* Gunung Malang, *Taman Ayu* Village, West Lombok, who felt the loss of various local wisdoms that had existed for years and become a deep-seated tradition for generations. As a result, the younger generation in the *dusun* has a tendency to move to the city to earn a better income and livelihood due to the lack of jobs in their hometown. One of the reasons for this is because there is no proper management system and fostering of the results of cultural creativity by the community in *Dusun* Gunung Malang. As a result, they can only wait for orders to come from within their own community, which in turn makes their income somewhat limited and uncertain. Consequently, working in the field of cultural tourism is not the first choice for the local people. If there is no intervention in the fostering and management of local culture involving various stakeholders, both from the community and the government, the local wisdom and rich culture that form the glue of social life in *Dusun* Gunung Malang will be at risk of disappearing.

RESEARCH QUESTION

To frame the theme of the study, then the research question is required to map the problems. The research questions include:

- What is the essence of local wisdom in woven fabrics in Mount Malang?
- What is the essence of local wisdom in *Panji* shadow puppets in Mount Malang?

THEORETICAL FOUNDATION

Local Wisdom in Tourism

Basically, local wisdom is a joint effort in a community to maintain resources that are used continuously to support the community and maintain environmental balance [1]. Local wisdom is a positive attitude of the community when interacting with nature and the environment around them which comes from the values they have about rituals in religion, messages from elders or local culture, which are formed naturally in a community so that people can adapt to the surrounding environment. Local wisdom can also be interpreted as a human effort by using their ability to think (cognitive power) to run and behave towards an object or condition that occurs in a particular place [2]. Local wisdom can also be defined as a variety of local ideas that are wise, full of noble values, well embedded, become a tradition, and run by the local community naturally [3], [4].

In general, local wisdom occurs because of an internal process in a community that is maintained for generations in a relatively long time and is a result of interaction between humans and the surrounding environment. In other words, local wisdom can be interpreted as a communal social system, rather than individual [5]. In his research, Sartini [4] concluded that local wisdom is a combination of noble religious values with various values found in society, from those related to life that is sacred to the profane (not holy). Although local, but the values contained in local wisdom are universal. In addition, Adimihardja [6] and Sartini [4] explained that local culture has a direct or indirect influence on the formation of local wisdom.

ISBN: 978-602-53420-4-2

According to Soedigdo, Harysakti, and Usop [3], there are two main elements of local wisdom. First is the human aspect and mindset, and second is the local natural and climatic conditions. Local wisdom also consists of tangible aspects such as writing and buildings, and is intangible, such as the advice of elders and traditional traditional songs that contain hereditary teachings.

Cultural Products

The development of culture-based products was explained by Smith [7], who emphasized the importance of this in meeting the potential demand in the tourism market that is dynamic and supports the sustainability of the industry in the future. There are at least five elements of culture-based products, among others: physical buildings, services, hospitality, freedom of choice, and involvement. Culture is interpreted as the embodiment of the life of a person or group in treating their natural environment. Therefore, there are demands to constantly develop abilities, creativity, and various new discoveries [4].

Ideally, to be able to ensure sustainability in the future, the development of culture-based products is centered on the interdependent relations between the social and economic dimensions of a culture. In addition, the use of new media such as the internet and social media in developing social and cultural communication initiatives also enables a variety of networks to open up tourism markets that were previously unimaginable. The right marketing mix to carry out established marketing strategies is also important to ensure that culture-based products are competitive and have the right positioning in the eyes of tourists as a target market [8]

In developing culture-based products, the community as the main agent in the process of change must also always be involved so that they can actively participate and not only be seen as limited to the subject of development. The community is also the party that best understands the potential of the region that can be developed into an integrated cultural product [9], [10]. On the other hand, tourists as the main clients of the product must also be given the opportunity to be involved in the development of culture-based products. In the context of tourism, involvement is not limited to being understood as physical participation, but also active participation in order to fully enjoy tourism services [7].

According to Benur and Bramwell [11], cultural products can be concentrated or diverse. First, concentrated cultural products have the implication that the development of cultural products is only focused on one or a few products. This can be advantageous because the product offered can have a unique identity and reputation that attracts many tourists, even though there is a risk of problems with the product due to limited choices. Second, cultural products can also be diverse, which can increase the attractiveness of tourist destinations, increase the likelihood of being able to provide services that can be tailored to the needs of customers (customized), and ensure greater flexibility in meeting the tastes and demands of tourists who keep changing as with the times.

RESEARCH METHOD

The study uses a qualitative research method by conducting in-depth interviews with informants, as well as field observations to compare and obtain data for analysis. The resource persons the researchers selected for the purpose of this study were Mr. Nur Hidayat, the Head of *Dusun* Gunung Malang who was also a keen observer of the culture and a highly respected figure in *Dusun* Gunung Malang; Mr. Nurhadi, an elder of *Dusun Gunung Malang* and a renowned *Sasak* puppeteer; Ms. Oni, an observer and a weaver of woven fabrics; Mr. Darwisi (aka. Amaq Darwilis), a *Panji* shadow puppet craftsman; and Mr. Ramli, a cultural activist in *Dusun* Gunung Malang who also happened to be the researchers' host during the researchers' observation. The selection of the respondents was based on recommendations from Mr. Nurhadi as the head of *Dusun* Gunung Malang. After the data is collected, the researchers will be able to explain the data by analyzing the findings of the study.

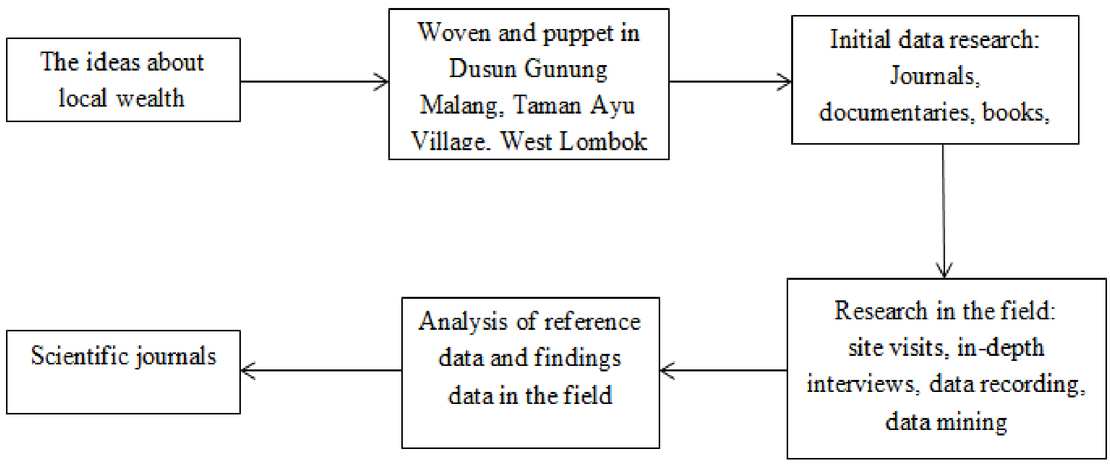


Figure 1. Research Stages

THE PURPOSE OF EXPLORING THE VALUES OF LOCAL WISDOM

An exploratory study is expected to be able to contribute suggestions for the development of the object being studied. This is intended to further enhance the potential of said object to be more beneficial and meaningful. Some of the benefits expected from this research are:

1. Improvement of the economic condition for the local people;
2. Preservation of the endangered local culture to be invigorated and preserved as a learning medium;

3. Revitalization of the arts/local wisdom that is almost lost by recollecting various forms of local culture and values;
4. Re-establishment of identity through local wisdom;
5. The increase of ties and friendship between citizens;
6. As an alternative activity for the young generation in counteracting certain trends that could potentially divide the nation; and
7. As a positive avenue to reduce juvenile delinquency.

DISCUSSION

Dusun Gunung Malang Weaving Fabric

Aside from being a farmer or a handyman, weaving is one of the side jobs available in *Dusun* Gunung Malang to improve the livelihood of the people. Initially, the majority of the 400 families in the *dusun* were weavers, but due to the rapid expansion of the modern machine tools that could produce weaving fabric much faster, this traditional home industry began to decline. To date, there are only around 20-30 weavers who are still active and capable. Not only to the emergence of the machine industry, the weaver community is also facing a crisis of orders. This has an impact on the production system carried out by the weavers, as they do not want to invest a large capital investment if the demand is low. Furthermore, for the majority of the weavers, this weaving fabric creation is only a side income only and is not considered as their main occupation. The weakness of the management system as well as the lack of marketing effort for this precious cultural product are partly to blame for this condition. The management is carried out individually by the weavers themselves and there is not any collaboration among them to manage together in the form of, for instance, cooperatives, which could boost the sales outlook.

The weaving fabrics in *Dusun* Gunung Malang are created from yarn spun from cotton, with a touch of human creativity by knitting the fabric one by one to become a beautiful piece of fabric. Weaving fabric is not just a mere piece of fabric, but one in which prayers and hope are deeply incorporated into the motifs and creation process. In the past, people who reached this level of thinking had typically experienced a time of glory and gold. Understanding the values exposed in the motifs of the woven fabric are a good way to rejuvenate one’s awareness regarding the character of the nation through culture.

Figure 2. Bamboo matting similar to the *Ulat Bide* motif

According to Mr. Nurhadi, a *Sasak* puppeteer and an elder from *Dusun* Gunung Malang, in the past, there used to be a particular motif using the *ulat bide* fabric with noble meanings and deep values that looked like a woven bamboo which is often used for homes, similar to the bamboo matting on Figure 2 above. This type of motif is no longer produced by the weavers in this village, because it is very difficult to make, and the demand is virtually non-existent these days. *Ulat bide* fabric and motif were typically used to create shirts which could be donned when attending a special event like wedding ceremony. Unfortunately, this type of motif has become extinct, and the deep values embedded in the fabric can no longer be passed down and appreciated by the next generation. *Ulat Bide* motif is a symbol of a society that is tightly knit and always helps each other in life.

In addition to the typical Ulat Bide motif, there are some other motifs which originally comes from and is representative of *Dusun* Gunung Malang. For instance, there is the motif of "*ragi pengantin"* (bridal yeast) weaving fabric that can be seen in Figure 3 below.

Figure 3. "*Ragi pengantin*" weaving fabric motif

The *ragi pengantin* motif can be interpreted as part of the long and winding process of becoming a bridal couple. In the *Sasak* language, "*ragi*" can be roughly translated as "prerequisites". This type of fabric is only used by wedding couples who are preparing for their future lives together so that they are always reminded to support and encourage each other to achieve their shared hopes and aspirations in life. There are also other types

ISBN: 978-602-53420-4-2

of old motifs that the researchers discovered during the observation in *Dusun* Gunung Malang, such as *ulat bide*, *ragi seganteng*, *bugis*, *ragi ketap*, and *ragi kutik*. Unfortunately, some of these motifs are no longer available for various reasons, most notably due to the lack of attention and urgency for the locals to preserve them. If this matter is not given further consideration, including through data collection, artifacts preservation, and workshops, there is a strong chance that a lot of the weaving fabric motifs which are still available today will be obsolete and extinct in the future.

The process to create the weaving fabric itself is quite intricate. It starts off by inserting the thread in a warp and weft movement. In other words, the woven fabric is created as a result of the crossing between the two intertwined threads which are perpendicular to each other. The threads move in two directions: vertical and horizontal. Threads that are vertical or follow the length of the fabric are called warp threads, whereas the threads that are horizontal or follow the width of the fabric are called weft threads. In practice, the threads are arranged parallel and mounted on a loom, while the weft threads are moving to the right and left and then inserted in between the warp threads and mounted on binoculars in the form of rolls on a pallet. This weaving ability is inherited from the ancestors and has been passed down from generation to generation. There is an old tradition in the *Sasak* Tribe wherein a girl must be able to weave before they get married. This shows that weaving skills are an important requirement to be successful and independent in life.

Weaving fabrics typically have deeply philosophical motifs that serve as an added value to the work of art. The noble values are embedded in a fabric that can function as an "adhesive" in a cultural setting. If the products of such cultural ingenuity along with the values contained therein are managed more optimally through strategic means such as cooperatives, show rooms, coaching sessions by relevant agencies, as well as utilizing advances in contemporary media technology which can reach wider society to raise awareness and improve sense of belonging for the people.

Creating the *Sasak* Shadow Puppets

The existence of *Sasak* shadow puppets at the moment is not getting enough attention from the general public. Although there are still a number of puppets shows, their popularity tends to decline compared to the emergence of alternative media and entertainment sources these days. Worse still, *Sasak* shadow puppets shows are rarely put on stage at parties or holidays. People no longer consider *Sasak* shadow puppets as a source of education and entertainment. Shadow puppets in Lombok have entered a declining period and are feared to disappear if nothing is being done to revive them. This condition is markedly different from the 1950s, when *Sasak* shadow puppets were still a very popular source of entertainment for the people. At that time, because there was not

ISBN: 978-602-53420-4-2

much choice for the public, the community still came in droves to see the shadow puppets show all night long until early in the morning.

The puppets show is not just merely a traditional show, but beyond that, it is a precious cultural event, in which many pertinent elements of the society like traders, puppets community, the general public, the government, among many others, partake in the show. Because the event involved many stakeholders, the puppets show is no longer standalone in nature but has become an all-encompassing cultural event in which each element of the community intersects and communicates so that it becomes a public space where the people can express themselves.

Figure 4. An unfinished *Sasak* shadow puppets

The *Sasak* shadow puppets have evolved since the Hindu era and are now being used as a medium for the spread of the Islamic religion by introducing original stories sourced from "*Serat Menak*", an adaptation of the saga of Amir Hamzah from the Persian Kingdom which was translated to the *Kawi Javanese* by Yosodipuro II during the Islamic Kingdom of Mataram era. The story revolves around the journey of the Prophet Muhammad SAW to broadcast Islam in the past. However, since they were not allowed to visualize the Prophet, the main character of the story was the uncle of the Prophet, Amir Hamzah. In the *Sasak* puppet, he was known as the figure of Umar Maya, and Jayengrana or the king of Mecca. This was an intelligent cultural acculturation by the predecessors in presenting the essence of an important religious and cultural message in the form of entertainment. One of the remaining shadow puppets craft villages in Lombok is located in *Dusun* Gunung Malang, *Taman Ayu* Village, West Lombok.

ISBN: 978-602-53420-4-2

Figure 5. Mr. Amaq Darwilis with his unfinished *Sasak* shadow puppet and various certificates of appreciation

The only *Sasak* shadow puppets maker in *Dusun* Gunung Malang is Mr. Amaq Darwilis (pictured in Figure 5 above), who is the younger brother of Mr. Nurhadi, the renowned *Sasak* puppeteer in Lombok. Craft works from Mr. Darwilis have even been purchased by collectors from many foreign countries such as Germany, The US, South Korea, and Japan, among others, who came all the way to his house to buy the *Sasak* shadow puppets. Likewise, a lot of local puppeteers in Lombok also ordered puppets from Mr. Darwilis. Thus, the creation of *Sasak* shadow puppets in *Dusun* Gunung Malang has a great potential to be used as a tourism, education, and commercial program. However, Mr. Darwilis explained that he was dealing with certain difficulties when it comes to the preservation and sustainability of *Sasak* shadow puppets in the long run. Most notably is the fact that the demand for the puppets is somewhat unpredictable with a downward trend of late. Unfortunately, there seems to be a lack of support and guidance from relevant government agencies to remedy this situation. As a result, Mr. Darwilis worried that the treasured heritage of *Sasak* shadow puppets could disappear if nothing happened.

The *Sasak* shadow puppets in *Dusun* Gunung Malang are made of cow leather carved in keeping with the desired character. Then after the results are completed, the parts of the puppet are colored using the "*sungging*" technique (coloring in the puppets with technical gradations and semiotic colors that are applied to each character). From the arrangement of puppets on the *kelir* (the screen used to show the puppets on the stage), one can examine and learn more about the good and bad side of the character's behavior. For example, if the shadow puppets's figure is facing to the right side of the audience, it generally means that the shadow puppets' characters have a good attitude. Conversely, if the characters are facing to the left, in general they have an ill-advised nature. From the color, one can also learn a lot about certain meaning. For example, if the face of the shadow puppet is reddish, it means that the puppet's character gets easily mad or excited, while the black color typically means that the character has a calmer persona.

Figure 6. Examples of *Sasak* shadow puppets

There is a lot of learning experience and values that can be learned from the *Sasak* shadow puppets. Puppets act like a window into a human's life in the real world. Therefore, watching the shadow puppets performance is like a glimpse into the many events in one's lives. This kind of value should be maintained and preserved so that it can act as the nation's unifying media and the foundation of the country's future generation.

CONCLUSION

Based on the great potentials in *Dusun* Gunung Malang that is rich in cultural heritage and customs, the researchers conclude the following points:

1. *Dusun* Gunung Malang has a valuable potential regarding its weaving fabric and *Sasak* shadow puppets production which should be capitalized on as a main source of livelihood for the people and a solid foundation for tourism development (as a Tourist Village);
2. Weaving fabric and *Sasak* shadow puppets in *Dusun* Gunung Malang require certain technical improvements in terms of overall capacity building, product creation and management, business planning, marketing and promotion, and tourism development, among many others, in order to maintain their sustainability in the long run.
3. One of the main challenges faced by the local creative industry in Dusun Gunung Malang is the lack of leadership and capability to properly manage and showcase their cultural products in order to improve the lackluster sales at the moment;
4. The government (at local and national level) should pay more attention to the many cultural potentials in *Dusun* Gunung Malang and allocate their resources to turn the area into a promising Tourist Village;
5. There is a need for further fostering and skills development of weavers and shadow puppets art crafters in *Dusun* Gunung Malang
6. The cultural preservation/revitalization program should be supported and maintained.

ISBN: 978-602-53420-4-2

7. Local arts and culture in *Dusun* Gunung Malang could serve as a diplomatic strategy to attract potential visitors to the village.

The cultural wealth and heritage in Dusun Gunung Malang are remarkable. However, in the absence of a proper direction and leadership, it is feared that the rich cultural heritage in the village would eventually become irrelevant in this modern world and gradually cease to exist. In addition, the lack of product management and marketing have also turned potential customers/visitors away from discovering the great offerings that the *dusun* possesses.

REFERENCES

[1] S. S. Hadiwijoyo, *Perencanaan pariwisata perdesaan berbasis masyarakat: sebuah pendekatan konsep*. Jakarta: Graha Ilmu, 2012.

[2] V. R. Vitasurya, "Local Wisdom for Sustainable Development of Rural Tourism, Case on Kalibiru and Lopati Village, Province of Daerah Istimewa Yogyakarta," *Procedia - Soc. Behav. Sci.*, vol. 216, no. October 2015, pp. 97–108, 2016.

[3] D. Soedigdo, A. Harysakti, and T. B. Usop, "Elemen-Elemen Pendorong Kearifan Lokal pada Arsitek Nusantara," *J. Perspekt. Arsit.*, vol. 9, no. 1, pp. 37–47, 2014.

[4] Sartini, "Menggali Kearifan Lokal Nusantara: Sebuah Kajian Filsafati," *J. Filsafat*, vol. 37, no. 24, pp. 111–120, 2004.

[5] Dahliani, I. Soemarno, and P. Setijanti, "Local Wisdom in Built Environment in Globalization Era," *Int. J. Educ. Res.*, vol. 3, no. 6, pp. 157–166, 2015.

[6] K. Adimihardja, *Dinamika Budaya Lokal*. Bandung: Indra Prahasta bersama Pusat Kajian LBPB, 2008.

[7] L. J. Smith, "The Tourism Product," *Ann. Tour. Res.*, vol. 21, no. 3, pp. 582–595, 1994.

[8] A. Shahhosseini and F. A. Tohidy, "Marketing Mix Practices in the Cultural Industry," *Int. J. Bus. Manag.*, vol. 6, no. 8, pp. 230–234, 2011.

[9] D. T. Raharjana, "Membangun Parawisata Bersama Rakyat Kajian Partisipasi Lokal dalam Membangun Desa Wisata di Dieng Plateau," *Kawistara*, vol. 2, no. 3, pp. 229–230, 2012.

[10] M. H. U. Dewi, C. Fandeli, and M. Baiquni, "Pengembangan Desa Wisata Berbasis Partisipasi Masyarakat Lokal di Desa Wisata Jatiluwih Tabanan, Bali," *Kawistara*, vol. 3, no. 2, pp. 129–139, 2013.

[11] A. M. Benur and B. Bramwell, "Tourism product development and product diversification in destinations," *Tour. Manag.*, vol. 50, pp. 213–224, 2015.

TOWARD A "TOURIST VILLAGE": LESSONS LEARNED FROM *DUSUN* GUNUNG MALANG

Hanif Adinugroho Widyanto[1], Hari Suryanto[2], Adhi Setyo Santoso[3], Jony Oktavian Haryanto[4]

[1*]School of Business President University; [2]School of Communication President University; [3]School of Business President University; [4]School of Business President University

Email: hanif@president.ac.id*

ABSTRACT

The purpose of this research is to examine the potential of Gunung Malang Sub-village (Dusun) in Lombok to become a Tourist Village. The researchers tried to examine the factors that must be done both in terms of production, marketing, and the obstacles that exist to become a Tourist Village. This research uses a qualitative methodology, which includes in-depth interview with seven cultural practitioners in Dusun Gunung Malang. The researchers also conducted an ethnography study, where one of the researchers stayed there for one month to make observations and gain an understanding of the phenomenon. The results showed that a series of follow-up actions were needed to increase production, marketing and overcome obstacles to making Dusun Gunung Malang as a tourist village.

Keywords*: tourist village, weaving fabric, production, marketing*

BACKGROUND

Dusun (sub-village) Gunung Malang, Taman Ayu Village, is located in the Gerung District, West Lombok, West Nusa Tenggara. This *dusun* has been known to produce high quality weaving fabric for the West Lombok area and its surroundings. According to one of the village elders, Mr. Nurhadi (74 years), as long as he could remember, since the days of his grandmother, she had already been a weaver. Since it has been passed down through generations and is done manually by the hands of skilled weavers who have been weaving since their early age, the quality of weaving fabric in Gunung Malang is of high quality and markedly different compared to the weaving fabrics found in other regions. This is also confirmed by Ms. Oni (43 years), who is a keen observer of weaving fabrics in Mataram.

However, when the researchers conducted observations to the location throughout 2018 and in mid-2019, it was discovered that the production of woven fabrics in *Dusun* Gunung Malang was not well developed to the point where it even diminished both in terms of production and the willingness of young people to become weavers. One of the most noticeable examples is the demise of weaving fabric made with special materials called "*ulat bide*", which are no longer produced in the village. In fact, these days, there are no more weavers in *Dusun* Gunung Malang capable of making these *ulat bide* fabrics.

This is unfortunate considering that the fabric is not just an ordinary one, but there is a deep-rooted local wisdom contained in it. In ancient times, all houses used the *ulat bide* material to cover the wall and roof, which also showed that humans are very dependent on nature, so that the environment must be maintained and preserved. However, along with the development of an increasingly modern era, where the plaque is replaced with a wall, the fabric that must be done with a high degree of difficulty and takes a long time makes the price of the fabric expensive, so that no more weavers want to make it and today, no one with the ability to make the fabric using the *ulat bide* material is left.

That being said, the production of woven fabric which is still done manually and does not use machines and still uses traditional dyes should be able to attract tourists to attend and buy high-quality woven fabric which will eventually push *Dusun* Gunung Malang into a Tourist Village that could potentially boost the local economy.

With this background, this study aims to understand the various factors that cause the underdevelopment of *Dusun* Gunung Malang as a tourist hamlet and also the factors that cause stagnation and even the decline of woven fabric production in Gunung Malang.

Research question:

1. What are the factors that contribute to the stagnation or even the decline of the production of woven fabrics in *Dusun* Gunung Malang?
2. What are the factors that hinder the sale of woven fabrics in *Dusun* Gunung Malang?
3. What are the factors that hamper *Dusun* Gunung Malang from becoming a Tourist Village?

THEORETICAL FOUNDATION

1) Tourist Village

Murdiyanto [1] explained that Tourist Village is basically a form of village development by utilizing various components in the community and village so that they can play an active role as an integrated tourism product attribute and reflect various characteristics of the village. A village can be categorized as Tourist Village if the area is capable of displaying local wisdom based on aspects such as socioeconomic, sociocultural, customs, architecture, building, or other activities that are unique and interesting, both in the form of performance art, accommodation, food and drinks, as well as other uniqueness that has added value.

According to Dewi, Fandeli, dan Baiquni [2], Tourist Village basically a form of local community-based tourism (CBT) development that is forward-oriented. The development of Tourist Village is expected to be a catalyst for the realization of equitable tourism development in a sustainable manner. Tourist Village also has a positive side because it is able to develop the values of the local wisdom of the village without damaging the local cultural ecosystem. In addition, Nalayani and Ayu [3] explained the important role of the Tourist Village in advancing the community's economy and increasing the equitable development of the village. To achieve this, a balance is needed between the social and economic environmental values in order to ensure future sustainability. The potentials of Tourist Village can also be categorized into environmental tourism, cultural tourism, as well as artificial (manmade) tourism.

On the other hand, the challenges faced in the development of Tourist Village are related to human resources, institutions, and infrastructure. The human resource aspect emphasizes the importance of increasing motivation, understanding, involvement, and regeneration of the Tourist Village community in carrying out and developing the cultural values contained therein. Second, the institutional aspects related to the management and organization of a Tourist Village to be able to actualize and sell a variety of interesting cultural potentials. The last is infrastructure, which is related to the development and maintenance of tourism supporting infrastructure in the village through funding efforts, equipment improvements, and expanding access to promote existing cultural potential [4].

The participation of community (CBT) in developing the Tourist Village is one of the main prerequisites because they are related parties who best understand the culture, local wisdom, and potential of the region. Support from local residents is also important to be able to ensure the development of a Tourist Village that is in line with the needs of local residents [5]–[7]. In addition, careful planning is also the key to success so that Tourist Village can become an impressive tourist attraction for tourists who come [8].

2) Culture-based products

In his article entitled "The Tourism Product", Smith [9] explained that the development of culture-based products is a major prerequisite for being able to meet the demands of a changing tourism market and ensuring the long-term sustainability of the industry. Under ideal conditions, culture-based products will meet with demand in the market, be produced at an efficient cost, and be based on local wisdom found in the area. There are at least five elements of culture-based products that need to be considered, among others: building the physical, service, hospitality, freedom of choice, and involvement.

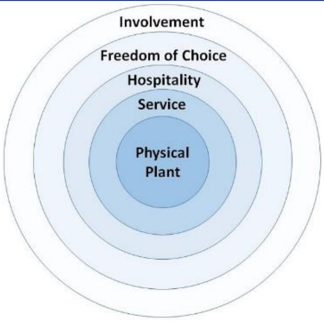


Figure 1. Culture-Based Product Model (adopted from Smith, 1994)

Professional tourism industry players generally emphasize the importance of innovative and varied cultural products, which in turn leaves a positive impression on consumers. From the perspective of marketing, product-based culture is a variety of things that are used to meet the needs of tourism and promoted to the market [10]. To be a good tourist destination, culture-based products need to be developed as a pull factor that can make tourists interested in visiting the area. In general, tourists expect that the cultural experience is related to various ritual and socio-cultural characteristics found in the tourist destination. However, the tourism industry can also create a new cultural product that is not directly related to the tourist destination [11].

In developing products based on culture, local wisdom of homegrown culture should be a top priority because it is considered able to provide added value to the tourism business, which in turn could create a competitive advantage that is based on cultural authenticity local [12]. In addition, to ensure that tourists can enjoy the authenticity of the local culture, it is necessary to ensure the experience of 'artifacts' (for example, clothing, food, or shelter) and 'mentifact' (for example: arts, beliefs and values). Therefore, product-based culture need to ensure the existence of these two distinct experiences [13].

3) Marketing of cultural products

Marketing third world countries is an inevitability, and some of the tourist destinations with the highest growth rates are situated in these regions [14]. In the context of marketing, how this is understood by consumers and suppliers becomes very important, because of its nature that must be mutually beneficial to both parties [15]. In order to improve the image and identity of a tourist destination, cultural product marketers can implement “product concentration”, by determining only one or a few main cultural products/attractions within an area. It can also improve understanding and wealth of cultural products owned by the local community, coordinate for faster and easier provision of facilities and infrastructure, and also the possibility of achieving economies of scale, for example through the development of a standardized package [11]. However, the lack of choices in the marketing of cultural products that implement product concentration system

ISBN: 978-602-53420-4-2

can reduce the possibility of offering services that are tailored to the needs of incoming tourists [16].

According to Taylor [17], when a culture is determined as a tourist attraction, the level of authenticity tends to decrease. Cole [18] explains that ethical aspects and values of the culture was adjusted to meet the demand of tourists, the culture becomes commoditized. According to Macdonald [19], people use the commoditization of culture as an approach to strengthen the identity, building a narrative about their culture, and emphasized the importance of local experience in the area. According to Widyastuti [20], in a capitalist society, this is common, because the commoditization of culture can affect anyone and make culture a market object and is designed to meet consumer culture . In general, the distribution of cultural products includes a series of activities to carry out cultural commoditization, create values, deliver messages, and promote products to customers effectively [21].

In the context of cultural marketing, marketing strategies require decisions about specific target customers. In addition, the marketing mix consist of product, price, distribution, and promotion can also be developed to be value proposition that is able to attract the attention of the market by putting yourself (positioning) is superior to other competitors. Furthermore, to be able to ensure the sustainability of cultural development, marketing needs to be 'holistic' by considering the social and economic dimensions of society. This can be done by combining the access and empowerment and creativity culture [22].

RESEARCH METHOD

This study utilizes two qualitative approaches to answer the proposed research problem. First, the researchers used in-depth interviews conducted during September 2018 as well as July 2019 with several key informants who were believed to be able to provide a more complete picture of the phenomena that was taking place. The key informants are: (1) Mr. Nurhadi (74 years). Mr. Nurhadi was chosen because he was once the head of the village back in 1984 and is currently the only puppeteer left in the village and one of the most senior elders in *Dusun* Gunung Malang. (2) Cultural activist from Gunung Malang named Mr. Ramli (37 years). Mr. Ramli been selected since his family is an instrument maker in Gunung Malang, and he himself is an artist gamelan player. (3) Mr. Ahmad Darwilis (72 years), who is a cultural activist, is the only shadow puppet maker in *Dusun* Gunung Malang. (4) Sastro bin Darwilis (35 years), who is the son of Mr. Ahmad Darwilis and a likely successor for the production of the shadow puppets. (5) Ms. Oni, a junior high school teacher in Mataram who has a keen interest in Gunung Malang’s woven fabric and often conducts research on woven fabric in Lombok. (6). Mr. Nur Hidayat (53 years), who is the head of the hamlet (*Kadus*) in *Dusun* Gunung Malang. (7). Mrs. Aminah (32 years) who is one of the remaining *tenun* crafters in *Dusun* Gunung Malang.

Second, this study also uses the ethnography approach, which is an observation conducted by one of the researchers for a month, back in September 2018. The observations were made to see the production process, marketing system, and to understand the local values in the *Dusun*.

The results of these observations have been recorded in a documentary film while reexamining if there are any elements in the study that are missed out.

RESEARCH AND DISCUSSION RESULT

Decreased Production of Gunung Malang Woven Fabrics

From the researchers' in-depth interviews and direct observations, it was discovered that the production of woven fabrics in *Dusun* Gunung Malang was indeed decreasing. For instance, just like what the researchers have mentioned before, there is the demise of the woven fabric using *ulat bide* as the fabric. This particular type of woven fabric had been passed down from generation to generation in the form of fabric used for clothes. Only this specific fabric that was originally intended to create clothes while the other fabrics are more intended for *sarong* (a type of fabric wrapped around the waist) or blanket. The loss of this *bide* woven fabric is partly due to the difficult production process, resulting in high prices of the product. Furthermore, because nearly all the buyers were basically local residents of *Dusun* Gunung Malang, the *bide* woven fabric slowly became unaffordable and impractical to make, to the point where it was finally no longer available and turned extinct.

Figure 1. Pak Nurhadi, an elder of *Dusun* Gunung Malang, in a *sarong* fabric

"...Right now, there is nothing else that can be used to make the fabric, but during my childhood, my grandmother still made it, but today, nobody can (do it anymore). My wife, when she was young, could also make it while helping her mother out, but now, since she's out of practice, she can't do it anymore. Nobody can." (Mr. Nurhadi, 74 years old, community elder)

ISBN: 978-602-53420-4-2

The researchers' investigation has also shown that there are some factors which makes the production of woven fabric in *Dusun* Gunung Malang decreased. First, the researchers discovered that the relatively poor sales were one of the main factors that contributed to the decline in the production of woven fabric in *Dusun* Gunung Malang. From the researchers' observation and interview results, it turned out that there were many woven fabrics (typically more than five in one household) that got piled up and failed to sell for months on end, making the weavers disincentivized to make new ones. The problem was, the majority of the buyers were local residents and there were hardly any orders from outside of the *dusun*. If they continued to produce but there were no orders, then their capital would eventually deplete while they still needed to put foods on the table and fulfill their daily needs. Mr. Ramli explained:

> "...If there is an order, of course the weavers will be excited to make woven fabric regularly. However, because the demand was low the and the fabrics just piled up, our money (to produce the woven fabric) eventually ran out, especially since most of the people in this village come from a lower-middle income bracket. If our resources got sucked into the woven fabric (without any income), then how can we eat? (Ramli, 37 years old, cultural activist).

This finding is interesting because it turned out that weaving work in *Dusun* Gunung Malang is considered as a side job, which is basically work in leisure time when there are no other important activities to do. If there are agricultural activities such as planting rice or harvesting, then the weaving activity stops. Likewise, when a neighbor dies or has a wedding ceremony, all the villagers will work together to help out and leave the work of weaving.

Second, there is a low interest of young people in the village to become weavers. They tend to choose to work in the city or even go abroad as a household assistant which are more "promising" and filled with a modern lifestyle. Many young people feel that there is no hope if they continue to live in the village with a monotonous lifestyle. The influence of outside culture through television and other media makes young women interested in working in the city so that now the remaining weavers in *Dusun* Gunung Malang are almost exclusively older people. If this generation passes one day, it is not impossible that the story of *Dusun* Gunung Malang as one of the first centers of woven fabric in West Lombok will only remain as a distant memory from the past.

> "…Young people here prefer to work in cities or abroad. They thought that if they worked in the city, they would get a large salary and not be 'outdated' (Nur Hidayat, 53 years old, Head of *Dusun* Gunung Malang).

Third, there is a change in culture and norms in Gunung Malang. This woven fabric is mainly used in certain occasions such as weddings or meeting in-laws for the first time, and so on. But now, because of the choice of printing fabrics that are much cheaper with more diverse models and many of them are similar in style to traditional woven fabrics, a lot of villagers prefer to buy the printed fabric products instead. Likewise, the existence of a factory-made *sarong* or blanket that is much cheaper to make woven fabric slowly but surely abandoned. These factors have made the marketing of woven fabric in *Dusun* Gunung Malang particularly challenging.

The Marketing Difficulties

After observing intensively by living together with the locals at *Dusun* Gunung Malang and based on a series of interviews the researchers conducted, the researchers have drawn some conclusions about the difficulties of marketing woven fabric products as follows:

First, the motifs are less varied. At present, the production of woven fabric is still carried out separately in individual households even though they are living in the same hamlet. This makes their production somewhat limited and only based on their personal experience and knowledge. This factor makes woven fabric products to be pretty much the same throughout so that variations are negligible. This is also the case since most of the buyers are only local residents of *Dusun* Gunung Malang, so they are also only aware of existing homegrown motifs such as *ragi seganteng*, *bugis*, *ragi ketap*, and *ragi kutik*.

Figure 2 below shows how the woven fabrics they produced have a limited variation.

Figure 2. The motifs of some "premium" woven fabrics which do not possess any distinctive qualities

Second, the price is relatively more expensive compared to the market. From the researchers' observations, the quality of Gunung Malang woven fabric is indeed better than the average woven fabric in general. But the price applied is also relatively more expensive than woven fabrics from some other regions in Lombok. Likewise, when compared to batik woven fabrics from Cirebon, Solo, Pekalongan or Lasem, the average price of the woven fabric in *Dusun* Gunung Malang is relatively costlier. Based on interviews that the researchers conducted with the local weavers, there is the impression that the pricing of the products is based on approximation because there was never any precise calculation of the amount of costs incurred.

ISBN: 978-602-53420-4-2

> "...the price is only approximate. There's no fixed price. It's always been that way too…" (Mrs. Aminah, 32 years old, weaver of woven fabric).

In addition, the researchers also observed that most if not all of the weavers could be said to have never left the Gunung Malang area. As such, they do not have a thorough understanding of competitor's prices and external motifs.

Third, the researchers also noticed that in *Dusun* Gunung Malang, there is no centralized "showroom" or a dedicated place at which to display the local woven fabrics. The fabrics are still scattered in each weaver's house, so that if there were incoming visitors or tourists who wanted to see and buy the woven fabrics, they would have a hard time to do so.

Figure 3. Local people showed their woven fabric on top of a motorcycle due to the absence of an appropriate place to display the products

Fourth, the production of fabrics that do not match market demand. Currently, all the weavers at *Dusun* Gunung Malang just make fabrics for *sarong* and blankets. Although the fabrics can be used as material to produce clothes (for example clothes for men or women), tailors will have difficulty because of the non-standard size of the fabric. Currently, there is a high demand from potential customers for clothes made from the woven fabric, while the demand for *sarong* and blankets are much more limited.

> "...Here, we only make woven fabrics for *sarong* and blanket. We used to have the fabrics for clothing material, but there were only a few of them, and now we don't have them anymore. "(Nurhadi, 74, a village elder).

Toward a Tourist Village?

Some of the findings above could partly explain about some of the causes of sub-optimal sales in *Dusun* Gunung Malang. On the other hand, there are several factors that hamper *Dusun* Gunung Malang from becoming a Tourist Village. Based on the researchers' research, the researchers notice a few factors that hinder the development of Gunung Malang as a tourist village, namely:

First, there is not any particular "specialty" from *Dusun* Gunung Malang. Although there is quite a few weavers remaining, but they are spread out too thin within the village and still somewhat "sporadic" in nature. To become a proper Tourist Village and ultimately

ISBN: 978-602-53420-4-2

boost the sales of woven fabric, they need to manage the production of woven fabric by improving the variety of products sold, establishing an integrated showroom/display space, as well as ensuring a standardized and competitive pricing strategy.

Figure 4. Placement of the loom at the porch of the house

From Figure 4 above, it can be observed that the weaving activity is merely a part-time job during the break/leisure time outside of their main occupation on the rice field as farmers.

Secondly, there is still a lack of commitment and support from the government, in this case the local government and district government, to turn *Dusun* Gunung Malang into a Tourist Village, despite the many potentials that the *dusun* possesses to become an attractive Tourist Village. For example, in addition to the woven fabric production by local weavers, the *dusun* has the only shadow puppet crafters in all of West Lombok which have attracted many foreign and local tourists who are more than willing to pay a premium to buy from these shadow puppets. Almost every house in the *dusun* also has a "*bale-bale*" to receive guests which is unique and interesting to tourists. Unfortunately, the promotion efforts of these unique cultural markers are still limited to word-of-mouth without any formal marketing activities.

CONCLUSION

Through a series of research that the researchers have conducted, it is discovered that *Dusun* Gunung Malang has tremendous potentials to be developed into a tourist village. Woven fabric production which has been handed down for generations, its tranquil location on the slope of mountains, as well as the presence of other cultural products such as the shadow puppets, have made *Dusun* Gunung Malang very promising if developed seriously. It should be able to become a tourist village that attracts local and foreign tourists alike. However, it requires the support and commitment from various stakeholders, including the government and local residents who are devoted to transforming the village into a proper Tourist Village.

This study utilized qualitative approach to describe the phenomenon at *Dusun* Gunung Malang and is still in the early stages to provide some systematic inputs on how to transform the small hamlet into a Tourist Village. The researchers' findings show that there is still much to be done, both in terms of production, marketing, and also a comprehensive set of actions to transform *Dusun* Gunung Malang and improve the livelihoods of the local community.

The researchers envisage that this article would be able to attract more researchers to conduct further research on how to develop *Dusun* Gunung Malang into a Tourist Village. In doing so, the researchers believe that young people would no longer have an urgency/need to work outside of the village or even abroad just to make ends meet. More importantly, the village could be able to sustainably preserve its valuable local heritage and cultural products so that they will not go to waste in the future.

REFERENCES

[1] E. Murdiyanto, "Partisipasi masyarakat dalam pengembangan desa wisata Karanggeneng, Purwobinangun, Pakem, Sleman," *Sepa*, vol. 7, no. 2, pp. 91–101, 2011.
[2] M. H. U. Dewi, C. Fandeli, and M. Baiquni, "Pengembangan Desa Wisata Berbasis Partisipasi Masyarakat Lokal di Desa Wisata Jatiluwih Tabanan, Bali," *Kawistara*, vol. 3, no. 2, pp. 129–139, 2013.
[3] H. Nalayani and N. N. Ayu, "Evaluasi Dan Strategi Pengembangan Desa Wisata Di Kabupaten Badung, Bali," *J. Master Pariwisata*, vol. 2, no. 1993, pp. 189–198, 2017.
[4] C. Rochayanti and R. Triwardani, "A lesson from Yogyakarta: A Model of cultural preservation through cultural village," *Proc. Int. Grad. Res. Conf.*, vol. 20 Decembe, no. December, pp. 8–12, 2013.
[5] D. T. Raharjana, "Membangun Parawisata Bersama Rakyat Kajian Partisipasi Lokal dalam Membangun Desa Wisata di Dieng Plateau," *Kawistara*, vol. 2, no. 3, pp. 229–230, 2012.
[6] N. Andini, "Pengorganisasian Komunitas Dalam Pengembangan Agrowisata Di Desa Wisata Studi Kasus: Desa Wisata Kembangarum, Kabupaten Sleman," *J. Wil. dan Perenc. Kota*, vol. 24, no. 3, pp. 173–188, 2013.
[7] I. M. S. Amerta, "The role of tourism stakeholders at Jasri Tourism Village development, Karangasem regency," *Int. J. Soc. Sci. Humanit.*, vol. 1, no. 2, pp. 20–28, 2019.
[8] I. Permanasari, "Pengentasan Kemiskinan Melalui Pemberdayaan Masyarakat di Desa Wisata," *J. Kepariwisataan Indones.*, vol. 5, no. 1, pp. 57–69, 2010.
[9] L. J. Smith, "The Tourism Product," *Ann. Tour. Res.*, vol. 21, no. 3, pp. 582–595, 1994.
[10] J. B. Xu, "Perceptions of tourism products," *Tour. Manag.*, vol. 31, no. 5, pp. 607–610, 2010.
[11] A. M. Benur and B. Bramwell, "Tourism product development and product diversification in destinations," *Tour. Manag.*, vol. 50, pp. 213–224, 2015.
[12] Y. M. Rowan and U. Baram, *Marketing Heritage: Archaeology and the Consumption of the Past*. Walnut Creek: AltaMira Press, 2004.
[13] E. Ko, S. Lee, and H. Whang, "Authenticity in traditional culture marketing: Consumers' perceptions of Korean traditional culture," *J. Glob. Fash. Mark.*, vol. 4, no. 2, pp. 93–111, 2013.
[14] C. M. Echtner and P. Prasad, "The context of third world tourism marketing," *Ann. Tour. Res.*, vol. 30, no. 3, pp. 660–682, 2003.
[15] C. Grönroos, "Marketing as promise management: regaining customer management for marketing," *J. Bus. Ind. Mark.*, vol. 24, no. 5/6, pp. 351–359, 2009.
[16] B. Bramwell, *Coastal Mass Tourism: Diversification and Sustainable Development in*

Southern Europe. Clevedon: Channel View Publication, 2004.
[17] J. P. Taylor, "Authenticity and sincerity in tourism," *Ann. Tour. Res.*, vol. 28, no. 1, pp. 7–26, 2001.
[18] S. Cole, "Beyond authenticity and commodification," *Ann. Tour. Res.*, vol. 34, no. 4, pp. 943–960, 2007.
[19] S. Macdonald, "A People's Story: Heritage, Identity and Authenticity," in *Touring Cultures: Transformations of Travel and Theory*, C. Rojek and J. Urry, Eds. London: Routledge, 1997, pp. 155–175.
[20] D. A. R. Widyastuti, "Komodifikasi Upacara Religi Dalam Pemasaran Pariwisata," *J. ASPIKOM*, vol. 1, no. 2, p. 197, 2017.
[21] M. J. Shin, T. Cassidy, and E. M. Moore, "Cultural reinvention for traditional Korean bojagi," *Int. J. Fash. Des. Technol. Educ.*, vol. 4, no. 3, pp. 213–220, 2011.
[22] A. Shahhosseini and F. A. Tohidy, "Marketing Mix Practices in the Cultural Industry," *Int. J. Bus. Manag.*, vol. 6, no. 8, pp. 230–234, 2011.

THE ROLE OF FILM MEDIA TO REPRESENT THE POTENTIALS OF ARTS AND CULTURE BY USING TECHNOLOGICAL CONVERGENCE

Hari Suryanto[1*], Hanif Adinugroho Widyanto[2], Adhi Setyo Santoso[3], Jony Oktavian Haryanto[4]

[1]School of Communication, President University; [2]School of Business, President University; [3]School of Business, President University; [4]School of Business, President University

Email: harisuryanto@president.ac.id*

ABSTRACT

Cultural art is the strength of the nation that underlies the character of Indonesian society. By preserving the arts and culture, the people have pride as a society that inherits a noble culture that is full of the teachings of life. Dusun Gunung Malang is one of the villages that has begun to fade the potential of weaving, makers of Wayang Sasak and Dalang. It is undeniable that the development of technology, science, development, the demands of life and the media have an impact on the development of cultural arts in Gunung Malang, West Lombok, which has fewer and fewer creative industry players. Documentary films become one of the solutions to revitalize the learning materials in schools and bring them back to the near-fading art by using renewable media technology that will be easier to become a space for production, distribution and exhibition through social networks with a wider range of information.

Keywords: *weaving; puppet; technological convergence; Film*

INTRODUCTION

Indonesia is a country rich in arts, cultures, customs, languages, food varieties, and natural resources. Such heritage and wealth can be utilized as a potential commodity to improve the quality of the country's human resources and maintain harmony and harmony and social life. They also must be maintained and nurtured so that it continues to grow and advance for the benefit of all of us. The problem now is that the largest population in Indonesia lives in Java. Residents are the agents of development and the driving force of the economy. If the population density is concentrated in an area, like the case of Java, it will be able to maximize the utilization of a greater percentage of natural resources and excessive utilization can trigger a decrease in environmental quality and eliminate some of the potential of arts and culture that can has the potential to develop education and a creative economy.

For example, back in the late 1970s, there were still a lot of public spaces for kids to play in small parks (*kebon)* with many plants, and we often made toys from banana fronds or made puppets from grass and we played with the *sahat* with the stories we wrote. A rainy day was a blessing for the people, and they would welcome it by playing slides using a coconut leaf midrib. Such creativity and activities have made people back in the days more empowered in life. Play spaces such as childhood are now scarce and even hard to find, and have been transformed into housing and development of infrastructure and facilities to keep up with community demands which are increasingly dense and complex. In the end, people have lost their control over the environment which is an important force to sustain their life.

This is also the case in Taman Ayu Village, *Dusun* (sub-village) Gunung Malang, an area which still has quite a few traditional weavers and *Sasak* puppet makers in this modern age. Taman Ayu Village in the *Gerung* District has a population of 6,280 people or about 1,775 households, with a total area of 605,280 hectares. The Taman Ayu village, Gerung District consists of: Gunung Malang sub-village, Peseng sub-village, Bongor sub-village (Regional Regulation of West Lombok Regency Number 8 of 2011, concerning the determination of Preparatory Village to become West Lombok Regency Village). Many residents work as farmers, farm laborers, and artisans, but in Gunung Malang, a lot of people (especially the women) still have a culturally important side job as weavers.

Other than the weaving fabric, other cultural heritage in *Dusun* Gunung Malang would include the art of *Sasak* Shadow Puppets production and performance. This is a potential that can be developed well if there is a proper guidance and capacity building from relevant government agencies and the active role of the community to move to increase the potential other than the agricultural sector. Currently, because of the decreasing demands, there are now not many remaining weavers, puppeteers, and Sasak puppet makers left in *Dusun* Gunung Malang. From the researchers' interview with Mr. Nurhadi, a Sasak shadow puppeteer in the hamlet, he is now the only puppeteer left, because there are not many young people who are still interested in the craft and want to learn about puppetry. The same goes for puppet crafting, wherein only the younger brother of Mr. Nurhadi named Mr. Darwisi (aka. Amaq Darwilis) and his son named Mr. Darwilis are the only crafters remaining in the village. This is also the case with weaving fabric in the *dusun*. To date, there are only around 20-30 weavers left who are still active in the hamlet, and most, if not all, consider weaving as a part-time/side job.

The most obvious obstacles that they encounter are in terms of marketing and coordination (or the lack thereof) among the local creative workers which have not been fully capitalized on, especially due to the lack of proper guidance and support from relevant government institutions. This situation results in a market that is only limited to the village community itself or just the surrounding villages at best. *Sasak* puppets are an exception because of their novelty and rare nature. They are sought after several times by foreign tourists and other puppeteers/collectors from Lombok and even Java, although the demand is still inconsistent which really hits the profitability for Mr. Darwisi. This condition is very unfortunate and over time this precious cultural heritage could cease to exist.

With this backdrop, the researchers would like to discuss about the importance of documentary films as one of the most effective methods to save this cultural art through audio and visual recordings, which are easily relatable for many people especially in this modern digital era. Another function of the documentary is also to promote the return of art and culture and the values contained therein. The development of the technological and industrial world is increasingly able to provide open creative space and wider reach through social media networks that are often used by the online community to access and spread information. By combining technology and local wisdom, it is hoped that cultural arts such as the ones found in *Dusun* Gunung Malang could rejuvenate and the development of creative thoughts that are diversified can be transformed into better packaging and management systems.

RESEARCH METHODS

The research methodology in this study is a series of systematic/structured steps undertaken by the researchers to compile a data collection system, by obtaining data and processing them through in-depth analysis to find the most relevant answers to the questions on the research object. The research method is a research design that makes it easy for researchers to conduct measurable and well-planned research.

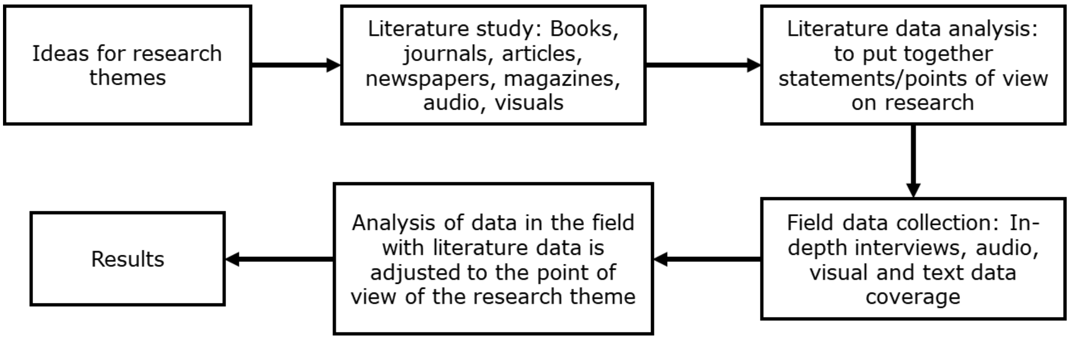


Figure 1. Flowchart of the research process methodology

The research activities are based on several ways to further strengthen the research process. In a research, there are some technical aspects that have turned into scientific requirements, namely empirical, rational, and systematic. Empirical research is conducted by being directly involved in the object of the research, so researchers will gain experience and data directly from the the field. Rational is when a researcher must think rationally, which means being able to explain the causes and consequences of certain threads during analysis. Systematic research is a research process carried out with steps that have been planned in the research design methodology.

For this study, the researchers have visited *Dusun* Gunung Malang in two separate occasions to conduct a thorough observation. The first observation was in September 2018 for almost a month, and the second one was in July 2019.

THEORETICAL FOUNDATION

Law of the Republic of Indonesia No. 33 Year 2009 Regarding Film

The law clearly explains the direction and roles of Indonesian films. Film as a work of cultural art has a strategic role in enhancing the resilience of the nation's culture and the welfare of the people physically and spiritually to strengthen national resilience. Therefore, the state is responsible for advancing film. Film as a mass communication medium is a means to promote the intellectual discourse of a nation, develop self-potential, foster noble morals, promote the welfare of society, as well as serve as a vehicle for the promotion of Indonesia in the international world. Hence, Indonesian films need to be further developed and protected.

Film in the era of globalization can also serve as a tool of cultural penetration so it needs to be protected from negative influences that are not in accordance with the ideology of *Pancasila* (the foundational philosophical theory of Indonesia) and the national identity of Indonesia. A clear presentation of the relationship between film, art and culture is clearly illustrated in Article 1 of the general provisions mentioned:

- Film is a work of art and culture which is a social institution and mass communication media created based on cinematographic rules with or without sound and can be displayed;
- National culture is the entire system of values, ideas, norms, actions, and the work of the Indonesian people in the entire archipelago in the life of society, nation and state.

Whereas in other parts, there are some important points found in Part Two, Article 3, wherein film is aimed for:

- Maintaining noble character;
- Realizing of the intelligence of the nation's life;
- Maintaining national unity;
- Increasing the nation's dignity;
- Developing and preserving national cultural values;
- Promoting culture on an international scale;
- Increasing public welfare; and
- Developing a cultural film (industry) that are flourishing and sustainable.

Film is one of the media alternatives which is very effective as a tool for delivering messages. Likewise, it is clearly explained that the cultural potential possessed by the country can act as the creative foundation for filmmakers. (Law of the Republic of Indonesia, 2009) [1].

Cultural Anthropology

Cultural anthropology consists of two words, namely anthropology and culture. The term "anthropology" comes from the word "*anthropos*" which means human and "*logos*" which means science or theory. So, the term anthropology is the study of humans. While anthropology which discusses culture is the study of the origin of human culture, its spread, and history. Culture is a whole system of ideas, actions, and results of human work in carrying out social life that belongs to human beings by learning [2]. Cultural anthropology in general studies the characteristics of human behavior as a result of its culture. Cultural anthropology in general studies how humans are able to develop their culture, about the origin of culture and the evolution of how humans with their unique intellect and physical structure succeed in changing their environment and all the diversity of human culture [3]. Ricoeur states that knowledge is always mediated through the interpretation. The understanding of "self" also requires an interpretation. For Ricoeur, philosophical reflection must start from the most primary languages of life, namely the language of symbols, metaphors, narratives etc. which provides feedback for reflection [4].

Convergence of Technology

The development of science encourages the creation of renewable technology and is supported by the industrial world. Likewise, with the development of media and technology that goes hand in hand with the industrial world. Convergence of Technology is basically the unification of several technologies into a renewable technology base that is more technically practical. Three aspects of renewable technology will contain three important things, Content, Computing, and Communication. Technology Convergence is called facilitation because digitalization of technology is the main gateway to open opportunities for the development of other forms of convergence [5].

FINDINGS AND DISCUSSIONS

The Potentials of Woven Fabric and *Sasak* Shadow Puppet in *Dusun* Gunung Malang

From the research and direct observation in *Dusun* Gunung Malang, there are at least two potentials for developing the foundation that can kickstart the creation of tourism village, namely, the creations of traditional woven fabrics and *Sasak* shadow puppets. Based on the in-depth interview with Mr. Nurhadi, the village elders, the skills to make woven fabric in the hamlet is taught from generation to generation from parents to their daughters, as a prerequisite before getting married.

Figure 2. Initial interview with Mr. Nurhadi, during the first research conducted in Gunung Malang (September 2018)

The existence of woven fabric used to be closely related to the customs and rituals of the community, so using woven fabric is kind of an obligation that must be performed. However, this is slowly becoming irrelevant, as there are changes in people's perspectives that are affected by advances in the fabric industry technology as well as the rapid advancement in information technology that provides various information that has the potential to shift the paradigm of local people [6], especially for today's young generation. This is in line with what was delivered by Mr. Nurhadi during the first research interview in Gunung Malang:

"The tradition (of using woven cloth) is sometimes still being done... but sometimes not... very much according to one's ability... because of financial issues... sometimes when there is a circumcision event, sometimes during the (prophet's) maulid *(birthday)... the use of woven cloth (these days)... no longer like before... not required."* (Mr. Nurhadi, community elder)

From the statement above, it appears that there has been a decline in society concerning the use of woven fabrics in daily life and traditional rituals. If this condition persists without any sense of concern/urgency by the community to improve it, it is feared that this valuable cultural potential will be lost. A complex problem that is being faced by many creative working societies amidst the inevitable advancements of technology, knowledge, and information that are changing norms in the society and offering a new paradigm of present procedures and formations. Just like Mr. Nurhadi said:

"The rituals (in the future)... we don't know yet. Tomorrow... tomorrow... tomorrow... tomorrow... we're already gone. What about the children... we don't know?" (Mr. Nurhadi, community elder)

ISBN: 978-602-53420-4-2

Figure 4. Mrs. Nuraini did her weaving activity as a side job after returning from work in the fields

Weaving work in *Dusun* Gunung Malang these days is only a side job, in contrast to the earlier days, wherein weaving work was still an obligation related to customs and culture, but also served as people's primary income earner. This shift primarily occurs due to the lack of promotion and a centralized management and inventory system for the weaving fabrics, which in turn yields little to no demand for the product. If customaries and traditions fade, then what would happen is the loss of culture and the values contained therein. Today, weaving is done after finishing the main jobs in the rice field or from other workplaces. Most of the women in the *dusun* carry out this activity while their husbands are working as craftsmen, migrant workers, or farmers. Like Mrs. Nuraeni, aged 25, who learned to weave from her friends and relatives, and would only pass down her weaving skills to her daughter, if the child is interested to learn. But these days, she only does the weaving work as a side job during her down time after returning from the field. One sheet of woven fabric is typically completed within one week.

Figure 3. Follow-up Interview with Mr. Nurhadi, an elder in *Dusun* Gunung Malang (July 2019)

During the second observation in July 2019, the researchers met again with Mr. Nurhadi, an elder of *Dusun* Gunung Malang. He explained that weavers in the past could be found everywhere in the *dusun*, but now there were only around 30 weavers left in the entire hamlet. There were also things that made him feel lost. He regretted that the old motifs had not been reproduced, such as *Ulat Bide*, *Ragi Pengantin*, or *Ragi Seganteng,*

ISBN: 978-602-53420-4-2

which were typical motifs of Gunung Malang. It was no longer produced because the production technique was quite old and very difficult, so that the remaining weavers no longer made the motifs because it was considered ineffective and a bit difficult to sell.

Figure 5. Mr. Darwiah (left) together with his son Darwilis (right), the only remaining crafters of *Sasak* shadow puppets in *Dusun* Gunung Malang

Likewise, the experience of Mr. Darwiah (a *Sasak* shadow puppet crafter) together with his son/apprentice Mr. Darwilis, gave a further understanding concerning the potential of *Sasak* shadow puppets in *Dusun* Gunung Malang. This was evidenced by the arrival of several foreign tourists from Germany, Japan, and Korea (among many others) who came all the way from their respective countries to *Dusun* Gunung Malang to witness the process of creating and coloring the puppets and also to buy them as mementos that could have a high value. Puppet craftsmen in Lombok are just a few in number with very limited local demand. This condition prompted Mr. Darwiah and his son to make their puppets in the hope of being able to market their products to foreign countries, although they were still struggling to do so due to the lack of knowledge and access. Furthermore, while it was not always the case in which enthusiasts of shadow puppets come to the *dusun* recurrently to buy the creative works of Mr. Darwiah, but seeing this condition gave certain hope to further develop the valuable cultural heritage into a successful business/tourism venture.

However, at the moment, without any significant breakthrough, the demand for both the weaving fabrics and *Sasak* shadow puppets is feared to only go down, resulting in a "downward spiral" for the locals in terms of preserving the cultural heritage, since it does not make sense financially (i.e., no incentive) for them to keep producing these things. Therefore, since a modern-day problem requires a modern-day solution, in this study, the researchers would like to propose a novel approach by utilizing the technological convergence in film media to document and eventually help promote the rich cultural heritage in *Dusun* Gunung Malang via the Internet.

Film as a Medium to Convey Information

Developments in the world of technology, information, and science created by the rapidly advancing industries today can be easily accessible to the wider community at affordable price tags. With this in mind, it does not rule out the possibility in which science and technology could join forces to complement one another in order to develop knowledge based on certain circumstances. Film media (i.e., audio and film) is no longer merely a source of entertainment, but it also has the power to be able to write and represent data from a study more clearly to the general public. Films are able to visually present the actual conditions on the ground. Furthermore, films can also provide a real visual chronicle in exposing certain conditions. In addition to the power of cinematic/visual, film also has narrative abilities that can be developed through audio and visuals approaches.

In this study, the researchers utilize the documentary film's narrative style, due to the extraordinary ability of this type of film to capture real data in the field without intervening or manipulating the data. With this ability, the audience will get the same information in the field with the information presented through the film. A film has several conditions that must be carried out during the creative process. In this study the process conducted is as follow:

Pre-Production

This process will determine whether the film production is proceeding smoothly or not. Pre-production process will produce a design of the film to be made. The design of production functions to facilitate the production of filmmaking, a filmmaker will have guidelines and sizes. Thus, a film production can be measured and predicted in its creation. This production design is not rigid, this production design is adaptive, which means that when in the production process the facts and data are found in a more comprehensive field, the production design will be adjusted. To make a good production design, a study was conducted. The process of initial data collection is important so that researchers get a picture and information about the object to be studied. Preliminary research data can be in the form of film, photography, audio, magazines, books, articles, journals, stories from sources that will later become the initial basis for understanding the research object.

Then, when the preliminary data has been obtained, the filmmaker will conduct field research to further explore the data and conduct in-depth interviews with relevant sources. From the results of the research in the field and combined with literature study, a filmmaker will analyze and make a point of view of the theme. This is what is important in the process of research through film; the point of view or statement from the filmmaker on the study and analysis of data carried out in the research process to create a film production design has a particular aim to narrow down the ideas. Production design is important not only in the analysis of relevant film statement with the narrative and cinematic course, but also including the equipment planning, production time plan, planning of the crew involved, sorting out licensing issues, ensuring resource persons, transportation planning, consumption planning, as well as reaching out (by coordinating directly) to ensure that each planning division is set. After all the careful planning, film production can move on to the next stage.

Production

In the production phase, the plan from pre-production is executed step-by-step accordingly. Field production process sometimes encounter things that are unpredictable such as changes in weather and other natural factors, or alterations in scheduling due to sudden changes from resource persons due to a more urgent event or other important reasons, among many others. In addition, if there is a much more "representative" findings on the field to be covered, coordination is done to consider whether there should be an adjustment to the original design. One of the things to consider in this production process is group work that requires mutually supportive cooperation between the divisions in production. Moreover, clear communication will be very helpful to solve problems in the field and coordination is needed during the production process.

Postproduction

After the production process is complete, the next process is to record again if there are changes to the production process. After that, it enters the process of editing the film and arranging the music. The editing process consists of several stages, such as data loading, data categorization, assembling, rough cut, preview I (together with the director, producer, and editor), trimming, and preview II (together with the director, producer, and editor). After everyone has agreed with the editing results, the next process is fine cut and picture log. After the picture log, the color of the film will be graded and then given to the music stylist to work on the musical illustrations for mixing. After the process of coloring and mixing is complete, the next process is mastering. Finally, the film production is finished and ready to be presented. The three filmmaking processes above must be carried out so that the production is in accordance with the plans made. Planning is made to provide a more detailed understanding and consistent with the theme that has been selected in the production design process. From this manufacturing process, it is expected that the message to be conveyed through the film is easy to be received and understood by the audience, to ensure that the film can be a medium of change or media for aide-mémoire of an issue that might have been lost from the collective memory.

The three-stage process is a unity that could be carried out either through documentary or fiction films. In a documentary film, the process of finding ideas, formulating concepts, pre-production, production, post-production is the key to the success of a film [7].

Convergence of Digital Technology

Advances in technology and science are now triggering the emergence of digital communication so it is possible for organizations, communities, or individuals to convey text, audio, and video materials through cable, wireless, or fiberoptic connections via the Internet. Digital Technology Convergence refers to changes that occur in the media so that the emergence of renewable digital technology by having more leverage capabilities that can represent, store, and communicate information. Digital technology convergence is the integration of several different existing technologies to be made and used into a renewable technology.

This can occur because of the development of science and the role of related industries. The impact of this renewable technology is the emergence of digital technology with media that we can feel with the presence of smart phones that can be used for TV, the internet, taking photos and videos, and can be used to create information with audio, visual and text. The presence of digital technology through the internet makes information dissemination more quickly accepted by the public. Because everything has been contained in a technology that is capable of performing many tasks.

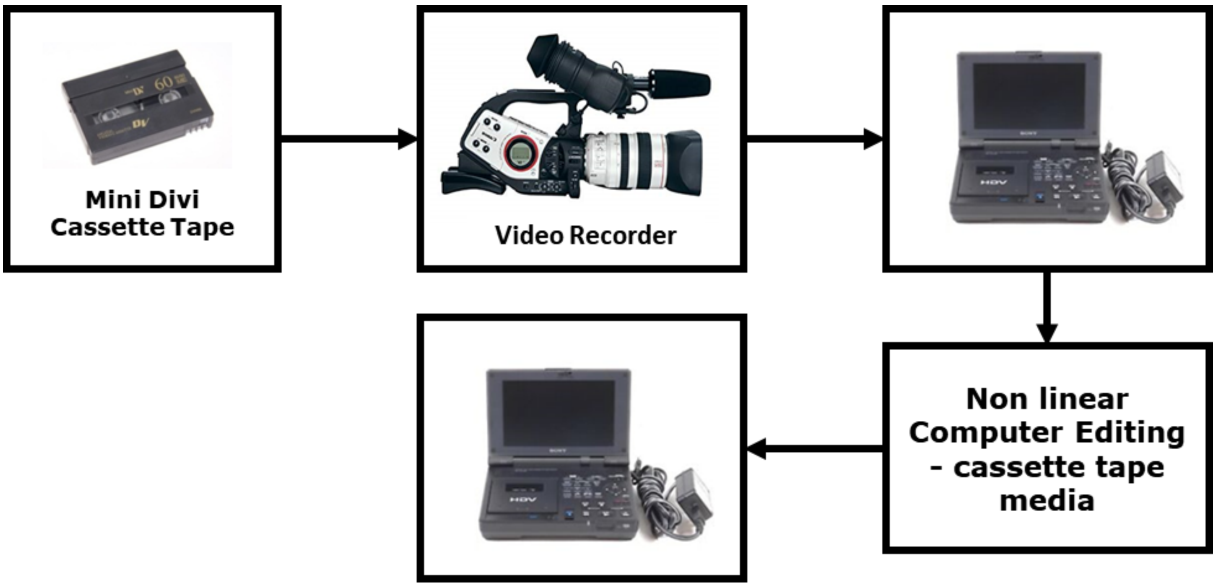


Figure 6. The process of video recording up to non-linear editing during the use of mini DV tape recording material

Figure 6 above explains the process of creating a film coverage using cassette material backed by several supporting equipment. The pattern of work above is called "non-linear editing", by changing data from tape to digital using the help of software. This work pattern is indeed more effective than the previous technology, which is called "tape-to-tape" or "linear editing", in which the entire editing process is done directly from tape (at that time the type of data recorder is a tape) by using two VTRs (Video Tape Recorder) as

ISBN: 978-602-53420-4-2

a playback to select the image as an "insert" recorded on the VTR master. In the era of renewable digital technology through this technological convergence, people can easily access and use technology for various desired purposes.

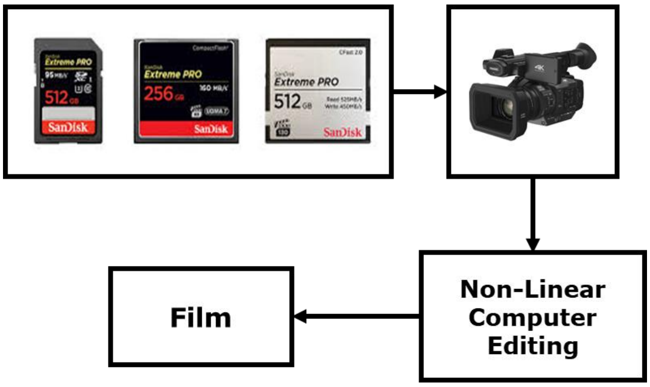


Figure 7. Convergence of film technology by using non-linear editing SD card data material

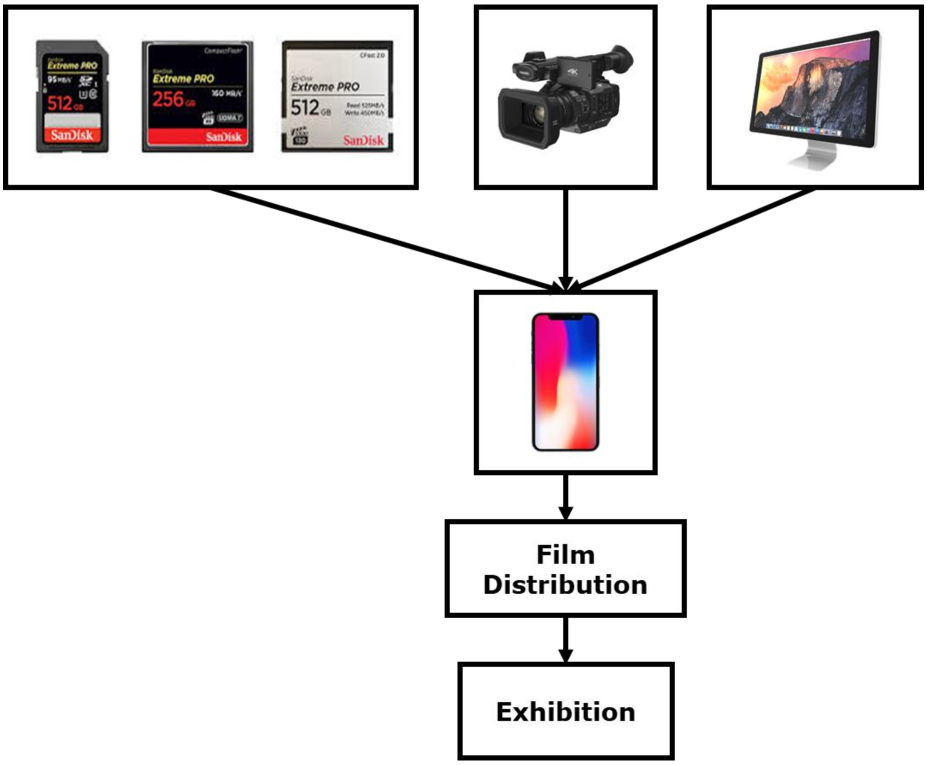


Figure 8. The convergence of technology that we can now find applied applications on smartphones

This applied technology is very helpful for people to improve their standard of living, regional potential, and resources if it is used for good things. Likewise, with film, there are three interesting things to be discussed, namely production, distribution, and exhibition, which can now be reached with just a single tool. The presence of smartphones these days is now able to assist in production, distribution, and exhibition. Technological convergence on the smartphone provides many software application facilities that can help facilitate work so as to provide support for production while providing space to distribute via the internet that is able to reach the entire world, such as through YouTube, Instagram, Facebook. The important thing to do is to study alternative renewable media carefully, so that one can maximize the creative power they possess.

A combination of technology, art, and cultural information

The opportunities for technological advances provide many attractive benefits, with creative ventures and visionary thinking moving forward hand-in-hand to advance the culture and preserve it in the form of data as a medium for the purpose of education and tourism. This effort needs to be intensified in a country filled with arts and culture that has high learning values for life. Heading towards the future, there would be a lot of technological advances and media that provide varied information which contains new offers that can also be loaded with ideology. Today, with the proliferation of music programs, drama, and news information constantly filling the airwaves, one's paradigm about the character and values of their culture/home country could eventually change.

For that reason, academics should strive and try to make cultural art as teaching material or study material so that the character of a nation with a strong cultural heritage can be preserved. With the cultural strength that a country like Indonesia has, it is possible that the country would be respected in the future by other nations because it has strong guidelines and ways of life that are contained in our culture, which can lead to a more harmonious and balanced life in the future. Technology is now a very effective media for cultural diplomacy between nations. The strength of "soft diplomacy" is the state to achieve national interests through social and cultural approaches. Film is one of the most effective ways to provide such information through technology to be able to become a soft power of diplomacy in national life towards a better future.

Figure 9. With smartphone technology equipped with internet networks, people can spread their culture to the rest of the world

Involving the wider community to care about the culture has been started especially by the young generation who become Youtubers, bloggers, and other social media celebrities ushering the theme of the archipelagic culinary, traveling around the country visiting tourist attractions and historic sites, and several other themes that are able to provide a better picture and more information about the national culture and heritage. Ultimately, it will be able to provide information to the potential tourism market both domestic and global. With the diversity of the materials, information will be absorbed by all generations so that the target audience becomes more aware.

Virtual cultural museum

With more and more contents being disseminated, a lot of possibilities will take place. To further maximize the movement for cultural socialization and revitalization, strategies are needed to maximize the work. When the amount of contents created via smartphones is sufficient enough, a storage is needed to contain all of that data. With a greater amount of data collected, modern technology makes it possible to accommodate all of the production.

Additionally, one could see that Indonesia is very wide-ranging and has a wealth of arts and cultural heritage. To maximize the variety of content and reach all regions of the archipelago, Virtual Museum can be established as a portal filled with contents from participants who are interested in arts and cultural interests. This could serve as an avenue for learning, preserving, and supporting the creative economic activities and tourism. Indubitably, there must be a manager monitoring the system. In the future, there must be a dedicated management so that we can have a cultural strategy in the current wave of revolution, so that the richness of our culture can go hand in hand with the changing times.

In the case of *Dusun* Gunung Malang, proper steps must be undertaken in order to ensure that they could take advantage of the film media to represent the potential of cultural heritage that they possess in the form of traditional weaving fabrics and *Sasak* shadow puppets by utilizing the technological convergence to disseminate information about the culture a lot more effectively to a wider range of audience. *Dusun* Gunung Malang Virtual Museum could also be set up by creating a content-rich website and/or mobile application, for instance, to introduce the *dusun* to the world and preserve the rich cultural heritage while promoting the limitless potential of art and culture at the same time. However, this can only be done with proper support by the relevant stakeholders, which include the local government, academic institutions, media and film industry, and local community, among many others.

CONCLUSION

From the discussion above, there are several conclusions to be made regarding the role of film media to represent the potential of art and culture in *Dusun* Gunung Malang by using technological convergence:

1. Maintaining and preserving culture is important as one of the nation's valuable heritages;
2. Values in culture is one of the nation's strategic character builders through literacy education in schools and communities;
3. *Dusun* Gunung Malang has significant cultural heritage in the form of traditional woven fabrics and Sasak shadow puppets creation and performance which are potential to be developed as a globalizing local force by utilizing technological convergence to spread the information about the potentials;
4. Renewable technology can be utilized to provide information about local culture;
5. Cultural strategy is necessary to answer the challenges in the future. One of the approaches that can be done is by establishing a Virtual Culture Museum;
6. Documentary films, features, news, and vlogs are some of the most effective media for disseminating cultural information about *Dusun* Gunung Malang and effectively finding the right audience by presenting the actual condition in the field through audio and visual narratives;
7. Diplomacy by using the power of culture is an effective means of spreading values and ideology through creative contents.

With the various prolific movements in the world of education as well as the active role of the community supported by the government through relevant agencies, there will be a cultural strategy that is based on dialogue in conducting cultural diplomacy both nationally and internationally to socialize the cultural heritage and potential of *Dusun* Gunung Malang.

REFERENCES

[1] Law of the Republic of Indonesia Number 33 of 2009 concerning Film
[2] Koentjaraningrat. Pengantar Ilmu antropologi: Pokok-Pokok Etnografi. Jakarta: Rineka Cipta. 2005.
[3] Harris, Marvin, "Culture, People, Nature; An Introduction to General Anthropology", New York, Harper and Row Publishers, 1988
[4] Paul Ricoueur, (2012) Teori Interpertasi: Memahami teks, Penafsiran dan Metodologi, Ircisod, Jogjakarta.
[5] Jenkins Henry, (2004) The Cultural Logic Of Media Convergence, International journal of Cultural Studies, London, Thousand Oaks, CA and New Delhi
[6] Combi M. (2016) Cultures and Technology: An Analysis of Some of the Changes in Progress—Digital, Global and Local Culture. In: Borowiecki K., Forbes N., Fresa A. (eds) Cultural Heritage in a Changing World. Springer, Cham
[7] Ayawaila Gerzon, Dokumenter Dari Ide Hingga Produksi – cetakan ke tiga, Fakultas Film dan Televisi Institut Kesenian Jakarta. (2017)

ISBN: 978-602-53420-4-2

LPD MODEL AND FUNCTION IN INCREASING THE INDIGENEOUS BALI ECONOMY

I Wayan Ruspendi Junaedi[1], I Wayan Damayana[2], Dermawan Waruwu[3]

[1]Management Program, Universitas Dhyana Pura;
[2,3]Psychology Program, Universitas Dhyana Pura

Email: ruspendijunaedi@undhirabali.ac.id[1]; damayana@undhirabali.ac.id[2]
dermawanwaruwu@undhirabali.ac.id[3]

ABSTRACK

The Village Credit Institution in Bali as a savings and loan business entity owned by a customary village, functions and aims primarily to encourage the economic development of rural communities through targeted savings and effective capital distribution. From the description above, the problem research formulation is how the existence and function of LPD in improving the economy of the Balinese people. The purpose of this research is to determine of the Model and the function of LPDs in improving the economy of the Balinese people. The research methodology is a qualitative descriptive method with observations, interviews, triangulation and documentation. The findings and results of the study are (1). Village Credit Institutions (LPD) as a financial institution that carries out the activities of collecting and channeling community funds operating in a customary village administration area on the basis of kinship between villagers. (2). By relying on the number of villagers and the close family ties within the LPD village, they continue to develop their institutions. (3). LPD has a function and purpose as a forum for village wealth in the form of money or other securities. As one of the Customary Village Owned Enterprises (BUMDA) directed at efforts to improve the standard of living of the village manners and support the development of the Customary Village. (4). Encourage development and maintain the economic resilience of the indigeneous Village society through targeted savings and effective capital distribution). (5). Model of LPD is the Indigeneous helping the small entrepreneurship in order to increasing the economic development so that the welfare of the people in bali increasing. (6). Creating equity and business opportunities for villagers and rural labor. (7). Increasing purchasing power, expediting payment and money flow in villages, and preserving Hindu culture, customs and religion. The conclusion is that the LPD still exists and the LPD is able to improve the economy of the Balinese community in general and improve the national economy in particular.

Keywords: Existence; Model; LPD Function; Economy; Society.

INTRODUCTION

Indonesian territory has traditional institutions that regulate social, cultural and economic life. Indigenous peoples in Bali have awig-awig that regulate the pattern of social life, culture, religion, and even the economy. In general, awig-awig is known as the Supreme Paruman Decree. Each adat area has its own Paruman Agung Decree in accordance with its social, cultural, religious, economic and geographical conditions. In developing the concept of customary economy and its capital, the Bali Traditional Village levies fees on traders who do business in their area. This levy is always done every day or every month. This levy is imposed on all parties, both in the informal sector and the formal sector. One of the traditional markets in Badung Regency, Bali Province, which gives donations every month to traditional officials as shown in Figure 1 below.

Figure 1. Traditional Market Atmosphere in Bali
(Source: Junaedi Documents, 2018)

Small businesses in the informal sector have very low costs, have profit margins, use negotiation agreements outside the legal system, and provide minimum wages [1]. Small businesses in the informal sector are often less efficient in investing than the formal sector [2]. Usually small businesses are less able to read market opportunities, capital weaknesses, managerial weaknesses, including weaknesses in obtaining market access information [3].

Strengthening carried out by the Village Customary Institution (LPD) in the Province of Bali aims to build the economy of its people. The successful development of this economic model is evidenced by the business activities managed by the Indigenous Village such as traditional markets, cooperatives, LPDs, management of tourist attractions, and so on. The informal sector plays a role in solving the problem of poverty [4]. The informal sector is strongly correlated with economic development [5]. The informal sector is in great demand by residents who work as entrepreneurs. Human capital in the informal sector often creates negative externalities, so the government reduces it through special taxes and regulations [6].

The success of the economic development of indigenous peoples in Bali can be a model for accelerating national economic development through empowering indigenous peoples throughout Indonesia. The Village Credit Institution in Bali as a savings and loan

ISBN: 978-602-53420-4-2

business entity owned by a customary village, functions and aims primarily to encourage the economic development of rural communities through targeted savings and effective capital distribution.

Village Credit Institutions (LPD) as a financial institution that carries out the activities of collecting and channeling community funds operating in a customary village administration area on the basis of kinship between villagers. By relying on the number of villagers and the close family ties within the LPD village, they continue to develop their institutions. LPD is a financial business entity that is owned by a community (village) not owned by an individual / legal entity. LPD working area: in the local village environment. One of the LPD's capital comes from non-governmental funds. The success of the economic development of indigenous peoples in Bali can be a model for accelerating national economic development through empowering indigenous peoples throughout Indonesia.

Problem Formulation

From the background of the above problems, it can be formulated as follows:

1) How does the Balinese Indigenous Village build its community economic system?
2) What are the forms of economic institutions of indigenous peoples in Indonesia?
3) What is the economic empowerment model for indigenous peoples as a strategy in accelerating national economic development?

Research Objectives

This study aims to: find out how the Balinese Adat Village community builds its economic system; identify the forms of economic institutions of indigenous peoples in Indonesia; and formulating the economic empowerment model of indigenous peoples as a strategy in accelerating national economic development.

Research Urgency

The Indonesian economy is not yet stable and depends on developed countries. Indonesian territory is rich in natural resources, culture, and customs, but it has not yet been utilized to its full potential. Indonesian people have a traditional economic system that has been run for generations, one of them is the indigenous people in Bali through the Village Credit Institutions. Therefore, this research needs to be done to get the economic empowerment model of indigenous peoples as a strategy in accelerating national economic development.

LITERATURE REVIEW

Indigenous Peoples

Indonesian territory is rich in customs that have been passed down for generations. The pattern of community behavior is an important part of these customs. The perspective of the community mostly craves employment as a Civil Servants (PNS) and office workers rather than maximizing the potential economic potential of them such as traders or entrepreneurs. Prestige of civil servants or office workers are considered better than employers or traders. Whereas economically, an entrepreneur or trader has a higher income compared to civil servants or office workers.

The economic life or business sector in any form is inseparable from the customs or culture adopted by the community in every region in Indonesia. The level of entrepreneurship varies greatly according to the culture or customs adopted by each society [7]. The Balinese develop the concept of adat economy as determined by awig-awig. The economic capital of the Indigenous Village community in Bali is obtained through official levies to traders who do business in the customary area. This levy is always done every day or every month. This levy is applied to all parties in both the informal and formal sectors.

The pattern of understanding of a type of work is influenced by the customs or culture of the community. Cultural factors of each society greatly affect the level of productivity. Attitude and perspective of a person as a result of community cultural interaction are the main factors that inhibit development. In the environment of tropical society, attitudes toward agricultural work are negative and working outside is a type of work with low status. Many cultures are very static and there is little desire to do selfimprovement, change and work. People who work hard and want to change are still very minimal in Indonesia because of the structure of their society. Moreover, influenced by feudalistic cultural settings, so that resources are dominated by landlords [8]. Thus, adat is very influential in increasing the economy of a region and even increasing national economic development.

National Economic Development

The acceleration of national economic development is inseparable from the existing economic institutions in all regions of Indonesia. The concept was developed in New Institutional Economics (NIE) with a foundation that seeks to build ideas about institutions and organizations with the aim of achieving efficiency and minimizing costs. In the concept of overall costs, not only in the form of production costs such as the Neoclassical economic conception, but also transaction costs.

The competitive state of the Indonesian market can be a natural selection, where only efficient companies benefit. In the context of the economy of the Balinese people

ISBN: 978-602-53420-4-2

emphasize certainty and diversity. NIE on the other hand operates at two levels, namely the macro environment called the institutional environment (institutional environment) and the micro environment called the institutional arrangement (institutional arrangement). The institutional environment is a set of political, social and legal regulatory structures that stabilize production, exchange and distribution activities. The economic policy environment as a macro-environment includes: rules regarding electoral procedures, ownership rights and contractual rights [9].

In NIE explores non-market institutional ideas (ownership rights, contracts, revolutionary parties, etc.) as a way to compensate for market failures. In the NIE approach, the presence of imperfect information, production externalities, and public goods are identified as the most important sources of market failure, thus necessitating the presence of non-market institutions. In contrast, in the neo-classical approach, the three variables above are assumed not to exist, so the transaction costs associated with these variables are considered to be non-existent. In addition, the NIE literature adds several important points about institutional failures which are the cause of underdevelopment in many countries. The institutional failure refers to the contractual and legal structure, as well as weak regulation of third party enforcement, even though all of this must be strengthened to be able to carry out market transactions [10].

The working principle of the NIE operates at two levels, namely the institutional environment (macro level) and institutional arrangements (institutional level (micro level). In this context, Micro, Small and Medium Enterprises (MSMEs) play a role in expanding employment and contributing to Gross Domestic Income (GDP) [3]. Institutional environment is a set of political, social and legal regulatory structures that describe production, exchange and distribution activities. The rules regarding election procedures, ownership rights and rights in contracts are some examples of environmental / economic policies. Conversely, the level of micro analysis is related to the problem of institutional governance (institutions of governance).

Institutional agreement is an agreement between economic units that aims to manage and find a way so that inter-unit relations run smoothly, both through cooperation and competition. An ownership agreement is an institutional arrangement, because in it allocates ownership rights to individuals, groups, or the government [6]. Institutional agreements refer to ways to manage transactions, whether through markets, shadow markets (quasi-markets), or contract models that use the hierarchy. Institutional agreement approaches the most popular term referred to as 'institutional' [10]. The focus is on individual transactions related to the organization or culture of the community. In this case, the relationship between culture and entrepreneurship as well as culture is very influential in the development of entrepreneurship [11] [12].

Based on the description above, the relationship between culture and entrepreneurship greatly affects the economic improvement of the Indonesian people. Culture has an important role in shaping entrepreneurship, both local culture and national culture. Thus, customary institutions in all regions of Indonesia can be developed to improve the economy and welfare of its people.

METHOD

The method used in this study is a qualitative and quantitative descriptive method (mix method) and a type of grounded research that conducts in-depth interviews with triangulation techniques to traditional leaders in Indonesia and the banking sector. Qualitative and quantitative research is a process of finding data that aims to understand social problems that are based on holistic research, formed by words, and obtained from natural situations.

The research locations were carried out in Bali. To start this research began in the Province of Bali because this area already has a customary economic institution (LPD) that has succeeded in improving the economy and welfare of its people and impacting on the acceleration of national economic development.

Data collection techniques carried out by observation, interviews, and document / library studies. Observations were made by observing the economic life of indigenous peoples in the three provinces. Then traditional leaders and SMEs were interviewed in depth who used the snowball method to the point of saturation of research related to the community's economy and the types of jobs and businesses that he had been engaged in so far. After the data is collected, the data is reduced, then analyzed and arranged according to the desired patterns so that it is easily understood by the reader.

FINDINGS AND ANALYSIS

Of the three forms of indigenous economic empowerment, the authors discuss sequentially. Namely, the first Village Credit Institutions (LPD) in the province of Bali, the second Ate Keleng Credit Union (CU) in North Sumatra province and finally the Betang Asi CU in Central Kalimantan province.

The Model of LPD Bali

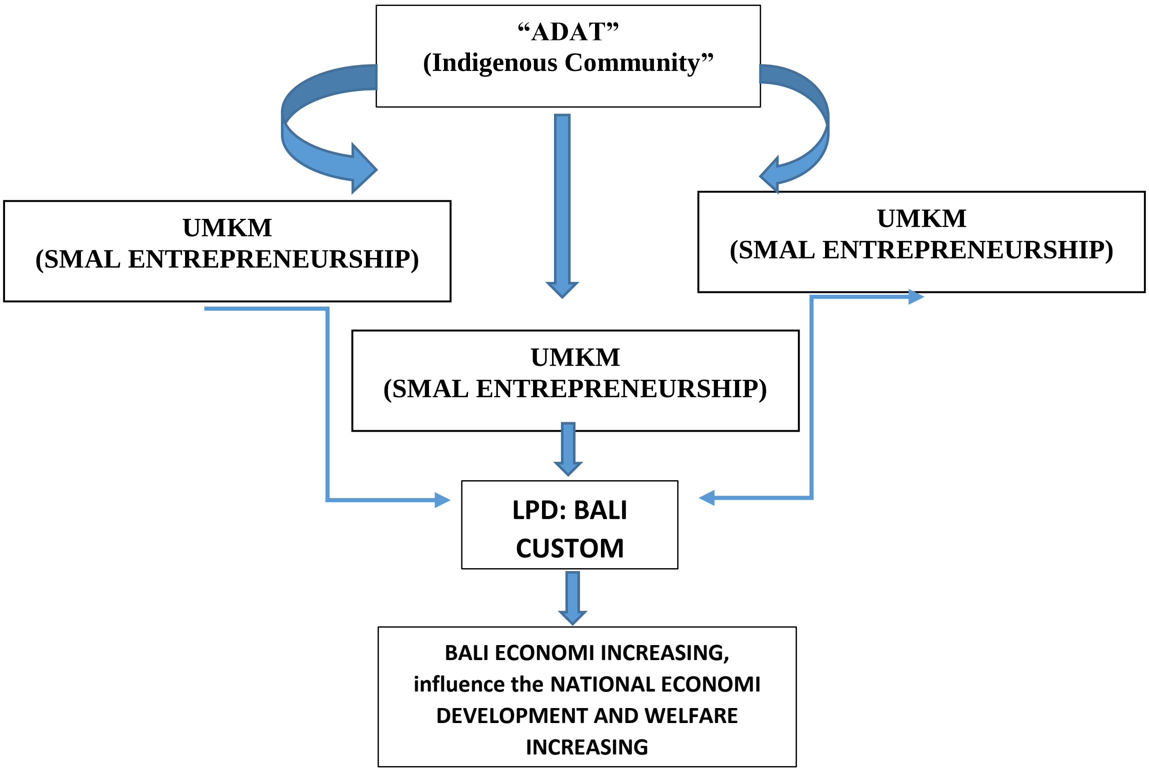
The LPD, beginning in 1983 at that time Ida Bagus Mantra, formulated the idea of forming an adat-based financial institution by adopting and developing the concept of local wisdom: sekaa in banjar in the midst of Balinese society. To reinforce his idea, the Governor of Mantra held a comparative study in Padang. There was already established Pitih Nagari Granary (LPN). LPN is a savings and loan institution for the indigenous people

ISBN: 978-602-53420-4-2

of Padang which is quite successful. LPN already existed in Minang, long before Japan colonized Indonesia. LPN initially recognized the basic principles of arisan which were utilized for customary interests such as engagement ceremonies, marriages, datuk appointments and others. At the same time, the Central Government also launched a program to establish credit institutions in rural areas to encourage economic development and improve the welfare of rural communities. A few months later a seminar was held on Village Financial Institutions (LKD) or Village Credit Agencies (BKD) in Semarang held by the Ministry of Home Affairs in February 1984. A number of provinces in Indonesia actually had Rural Credit Institutions that flourished in the 1980s. This institution is generally called the Village Fund and Credit Institution (LDKP). But in each region the names are different as in Aceh called the Sub-District Credit Institution (LKC), in West Java the Sub-District Credit Institution (LPK), in Central Java the Sub-District Credit Agency (BKK).

Bali tried to translate and finally, the Village Credit Institution (LPD) was formed in Bali with the aim of helping traditional villages. LPD's profits are planned to build religious life and ceremonial activities such as piodalan (ceremonies), so that citizens do not have to pay mandatory contributions. First, one LPD pilot project was made in each district. At that time, the legal basis for the formation of the LPD was only a Decree (SK) of the Governor of Bali's First Level Region No. 972 of 1984, November 19, 1984. Furthermore, 1985 (24 LPD), 1986 (71 LPD). Four years later 1990 (341), 1995 (849 LPD), 2000 (930 LPD), 2005 (1,304 LPD). In 2015 (1,423 LPD), in 2016 the total LPD in Bali reached 1,433 LPD. Based on data, as of October 2018, from 1433 LPD in Bali, with more than 7,900 employees and total assets reached Rp 21.5 trillion. Furthermore, the LPD was strengthened by the Bali provincial regulation no. 2/1988 to Bali provincial regulations No.8 / 2002 and related regulations. In addition to the requirement to have a written customary village regulation, the establishment of an LPD also depends on the provincial government's annual budget to provide start-up capital and prepare management implementers.

Diagram. 1.
Model 0f LPD Bali



Lpd Vision

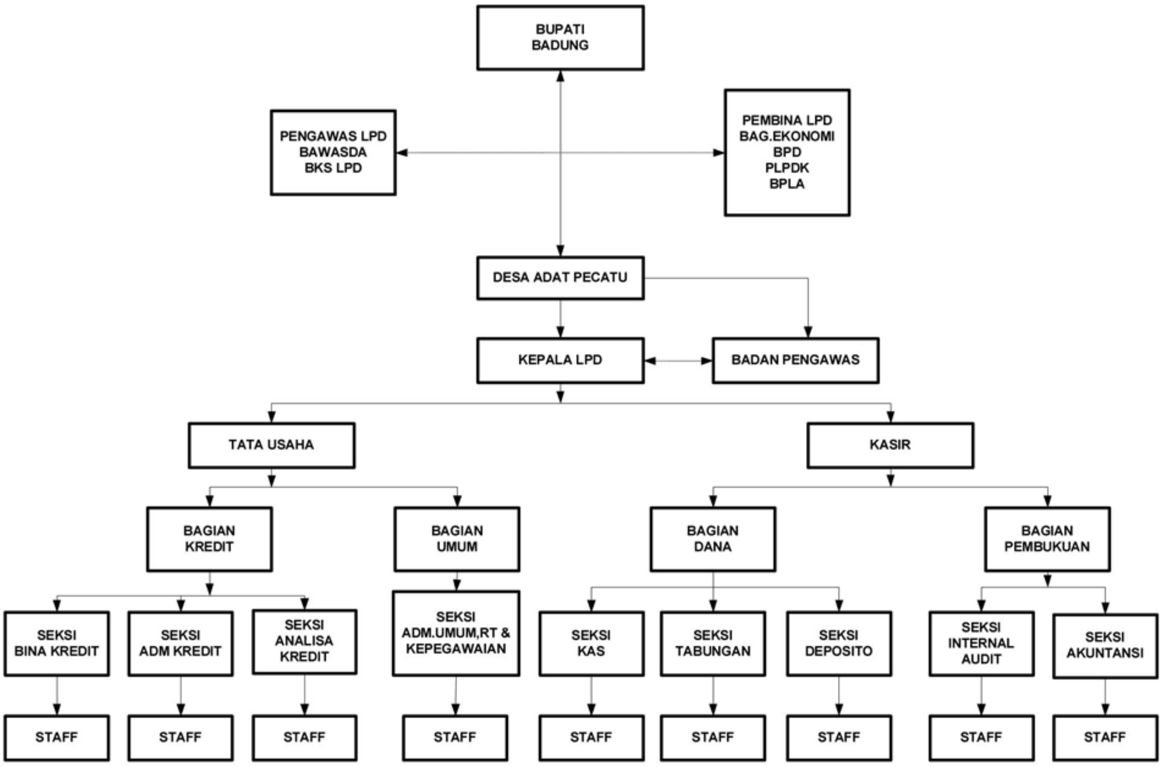
The realization of a healthy, strong, productive, and trusted LPD industry as a microfinance institution to support rural development, as well as the preservation of customs and culture of the Balinese region based on Tri Hita Karana in order to enrich the nation's cultural treasures. Creating conditions that are conducive to encouraging the improvement of LPD performance and sustainable financial services to the villagers of Pekraman to support economic growth and improve the welfare of village manners in the Bali region.

ISBN: 978-602-53420-4-2

Lpd Management

LPD management is the representative of each banjar in the local traditional village. See the diagram below i.e. an example of the structure of LPD.

Diagram. 2
Structure Of LPD



Lpd Has Functions and Objectives

As a container for village wealth in the form of money or other securities. As one of the Indigenous Village Owned Enterprises (BUMDA) directed at efforts to improve the standard of living of the village manners and support the development of the Customary Village. Encourage development and maintain the economic resilience of the Adat Village society through targeted savings and effective capital distribution). Eradicate bondage, dark pawn, etc. which can be likened to it. Creating equity and business opportunities for villagers and rural labor. Increasing purchasing power, expediting payment and money flow in villages, and preserving Hindu culture, customs and religion. Bellow is the Excellence of LPD, i.e.

1) Lending is prioritized for weak economy communities as business capital;
2) Low interest loans (including soft loans);
3) The repayment period is 1-5 years depending on the size of the loan, with reduced interest;

ISBN: 978-602-53420-4-2

4) For loans in certain amounts can be submitted without collateral/collateral;
5) For those who do not / do not have a KTP Bali can apply for credit / loan with KIPEM and a statement of guarantee from Kelian Banjar where he lived while in Bali;
6) Not subject to administrative costs;
7) The process is fast.

Bali Provincial Regulation No.4 of 2012 concerning LPD article 22, paragraph 1 explains: one of the net profit sharing of LPD at the end of the accounting year is for a 20% village development fund and a 5% social fund. This indicates that LPDs in Bali also have a social responsibility to the community. Disclosure of social responsibility to LPDs in Bali, which are given to indigenous village communities in accordance with the teachings of Tri Hita Karana (Parhyangan, pawongan, and palemahan). The LPD has clearly provided 20 percent of the profits for Bali's development. As an illustration at the end of 2017, the profit of LPD throughout Bali reached more than 524 billion, meaning that development funds of more than 120 billion were handed over directly to the development of indigenous villages. Bali Provincial Regulation No.4 of 2012 concerning LPD article 22, paragraph 1 explains that the net profit sharing of LPDs at the end of the accounting year is determined (a) capital reserves of 60%, (b) village development funds 20%, (c) production services 10 %, (d) development fund, supervision and protection 5%, (e) social fund 5%. The deposit and use of the profits referred to are in accordance with the governor's decision. LPD is a financial institution owned by Pakraman village that has developed and provides socioeconomic, and cultural benefits to its members. This institution which is not under the supervision of OJK in the future is still very relevant and needed as a driving wheel for the economy in Bali. Especially for SMEs when there is difficulty in accessing official banks, this is the place.

LPD is actually also governed by a financial regulation regulated in the Financial Law and Law No. 1 of 2013 concerning Microfinance Institutions (MFIs). However, in practice the LPD is now a full practice of saving and lending money with interest-bearing money systems, and he assesses such practices as the Rural Bank (BPR) by getting an exception. The existence of LPDs is regulated in Act Number 1 of 2013 concerning Microfinance Institutions (LKM). Paragraph 3 Article 39 of the Law, which reads "Village Credit Institutions and Pitih Nagari Granary and similar institutions that existed before this Law came into force, is declared to be recognized under customary law and not subject to this Act".

Furthermore, with the stipulation of the Indigenous Village Ranperda to be a Regional Regulation (No.4 Year 2019), in the future customary villages in Bali have the right to arrange their own awig awig and legal before the law, including compiling awig-awig for LPD development. Local regulations will strengthen customary law, and LPDs under customary law will be stronger. The establishment of the LPD to strengthen the strongholds of village autonomy authority in enduring a sustainable culture must be understood together. The role and function of the LPD holistically in the strengthening and development of the Indigenous Village economy as well as the preservation of customs, traditions, arts and culture and Balinese local wisdom.

LPD: Era Digitalization

Although LPD is a traditional financial institution, its management must be professional by encouraging the use of digital technology. Become a necessity, so that it does not become left behind especially in the current digitalization era. LPD must be able to develop innovation in the development of digitization, so that LPD becomes a traditional institution with a digitalized management system as a form of implementation of modernization.

In addition to digitization, educated and certified human resources are absolutely a must have. Of the 1,433 LPDs scattered throughout Bali, 600 of them have used LPD core standardization which facilitates data input and facilitates the LP-LPD inspection and supervision system. The use of LPD mobile has started to be carried out by LPD which provides convenience for customers. Included at this time is the BKS-LPD has designed the LPD Smart Outlet in collaboration with shops or stalls in the Pakraman village area.

The business activities of Labda Pacingkreman Indigenous Village (LPD) planned by the Governor of Koster include three business fields, namely the business of managing the Padruwen Indigenous Village, managing the Punia Krama Fund, and Krama Indigenous Village social economic activities.

CONCLUSION

From the explanation above, where the author has studied and paid attention to the LPD it was found that there are similarities in the economic empowerment model of indigenous peoples that are able to fulfill the desires of each of its members. (a) The way the Balinese Indigenous Village builds the economic system of its people is by strengthening the LPD by collecting contributions from residents of their village. (b) The economic empowerment model of LPD indigenous peoples as a strategy in accelerating the development of the national economy, namely: Helping troubled members; helping people who want to grow and developed; there are Standard Operating Procedures or SKEMA that must be passed by members in each of these customs; the existence of cheap interest that causes no courage to borrow that can be used for business; and there are borrowing conditions set by each institution, but differ in terms of credit services. The Model of LPD and the existence of customary economic institutions that support people to improve their economy in order to accelerate the development of the national economy which ultimately leads to the welfare of the lives of its people.

ACKNOWLEDGEMENTS

This research supported by The Ministry of Research and Higher Education of the Republic of Indonesia, through the Fundamental Research Grant for the fiscal year 2019-2020 and Dhyana Pura University, who has giving the opportunity to conduct research. We would like also to thank to our research helper who gathered data on field survey.

BIBLIOGRAPHY

[1] Nafziger EW. *Economic Development*. 2012. Epub ahead of print 2012. DOI: 10.1017/CBO9781139028295.
[2] Bigsten A. Determinants of the evolution of inequality in Africa. *J Afr Econ* 2018; 27: 127–148.
[3] Sabirin. UMKM, MEA, Pembangunan Ekonomi. *J Kewirausahaan dan Usaha Kecil Menengah* 2016; 1: 41–50.
[4] Todaro M., Smith S. *Economic Development*. 2012. Epub ahead of print 2012. DOI: 10.1177/089124240001400105.
[5] Pratap S, Quintin E. The Informal Sector in Developing Countries: Output, Assets, and Employment. In: *Personal Wealth from a Global Perspective*. 2009. Epub ahead of print 2009. DOI: 10.1093/acprof:oso/9780199548880.003.0018.
[6] LeRoy Miller R. Business Law Today: The Essentials. In: *South-Western Cengage Learning*. 2011, p. 127.
[7] Lambing P dan CRK. *Enterpreneurship*. New Jersey, USA: Prentice Hall, 2000.
[8] Beets WC. *Raising and Sustaining Productivity of Smallholder Farming Systems in the Tropics*. Holland: AgBe Publishing, 1990.
[9] Budi SP. Relevansi Dan Aplikasi Aliran Ekonomi Kelembagaan. *J Ekon Pembang* 2008; 9: 46–60.
[10] Erani YA. *Ekonomi Kelembagaan*. Malang: Bayumedia Publishing, 2008.
[11] Gamage, H.R. Cameron, D. & Woods E. Are Sri Langkan Entrepeneurs Motivated by the Need for Achievement? In: *Presented at the 9th Inter-national Conference on Sri Lanka Studies, 28th – 30th November 2003*. Sri Lanka: Matara, 2003.
[12] Saffu K. The Role and Impact of Culture on South Pacific Island Entrepeneurs, International Journal of Entrepeneurial Behavior & Research. 2009.
[13] https://robiatuladawiyah995.wordpress.com/2013/12/10/pengertian-credit-union-cu/.
[14] http://www.credituniondayalestari.org/page/sejarah-credit-union-dunia.
[15] https://id.wikipedia.org/wiki/Koperasi_kredit.
[16] http://journal.widyadharma.ac.id/index.php/bisma/article/download/180/179.

MENU PLANNING AND PRODUCT DEVELOPMENT FOR SINGLE ORIGIN COFFEE SHOP IN CATUR VILLAGE KINTAMANI BALI

Putu Chris Susanto[1], I Wayan K Teja Sukmana[2], Dylla Hanggaeni Dyah Puspaningrum[3], Michael Stoffl[4]

[1,2,3] Universitas Dhyana Pura Indonesia, [4]Heilbronn University Germany
chris.susanto@undhirabali.ac.id

ABSTRACT

Menu planning and product development can be a daunting task for a new F&B establishment. The process requires a thorough analysis of resource availability, market potential, and competitiveness. This paper discusses the menu planning and product development process for a coffee shop in Catur Village, Kintamani, Bali that exclusively serves single origin Arabica coffee locally produced by farmers who also manage the coffee shop. It is based on a community-based participatory action research that aims to assist the farmers gain the necessary skills and plan the recipes for the menu offering. Through the participatory partnership, the authors and the partners at Catur Paramitha coffee shop has developed a single origin coffee shop concept that highlights the versatility of the specialty coffee products produced in Catur, by offering manual brewing methods "around the world"—in addition to the famed local "Kopi Bali" and espresso-based offerings. By focusing on coffee, as well as one coffee by-product from dried coffee cherry (skin) called cascara tea, the coffee shop is able to offer visitors with unique experience of enjoying coffee in the very place it is farmed and processed, as well as the ability to learn about coffee production and brewing methods though the free tour offered by the shop—for which the farmers are also trained.

Keywords*: coffee shop, menu planning, participatory action research, product development, single origin*

INTRODUCTION

UUP Catur Paramitha is a local coffee producer that grows and process its own specialty Arabica coffee in the village of Catur, Kintamani, Bangli Regency, Bali. It is an extension of Subak Abian Wanasari Kenjung farmer's group that was founded in 1979. Since 2004, the group began to cultivate and harvest its own coffee into finished products, sold as beans and powder [1]. It consists of 55 members. UUP Catur Paramitha processes 300 tons of coffee per year.

The certified Kintamani Kopi company plans to plant new coffee trees which can be harvested the whole year and not only seasonal. Farmers in Catur village only grow high quality Arabica coffee [2]. There are certain requirements to meet to become a specialty coffee producer with the "Kintamani Arabica" branding. The coffee needs to grow at an altitude between 900 to 1300 meter, at least 95% of the beans processed must be red, there are certain soil conditions and a specific process [3]. The coffee plant needs to be plant under a shelter as they do not seek direct sunlight. Then it must be fertilized, and unproductive branches need to be chopped. Also, farmers must make a choice between growing coffee in mono- or multi-culture.

After the coffee cherries are picked and cleaned, high quality beans will be further processed in the wet process. Using this full wash method, coffee cherries are first fermented. After the fermentation the remaining fruit is removed, then the beans are dried to 12% water content [4]. The process reduces the caffeine content from 0.8% to 0.4%, which makes the coffee smooth and prevents consumers from unwanted caffeine crashes. Some beans are handled in the dry process, where the coffee cherry is dried fully in sunlight before the fruit is removed from the bean. After that, the beans are roasted. This important step in production later determines the taste: a light roast tastes rather sour, a medium roast brings out a complex fruity, chocolaty, sour flavor and a dark roast tends to taste rather bitter. Coffee connoisseurs, particularly in this third wave era of coffee, recognizes Kintamani Kopi because of its distinct, unique citrusy yet flowery bouquet [5].

The zero-waste concept of UUP differentiates the company from its competitors: the coffee plant is processed and used almost entirely. The beans are processed into coffee, the leaves and coffee skins are used for tea, the liquids from the wet process are used as fertilizer. Beginning in 2019, the co-op UUP Catur Paramitha started its own coffee shop. This was designed as a unique place where visitors can not only enjoy a great a cup of single origin coffee, but also learn about the entire coffee life cycle in its place of origin. Visitors will be able to learn about coffee history, the plant, the production process and about different brewing methods.

The problem that arose related for the newly established coffee shop was that the manager and members of the co-op had little knowledge and experience in F&B service and management. Thus, the UUP Catur Paramitha enlisted the help from lecturers and students of Universitas Dhyana Pura (Undhira), as well as a student from Heilbronn University Germany who was studying at Undhira as an exchange student, to develop a coffee shop concept most suitable for the co-op, to plan the menu offering, and to develop product offerings in-line with the concept being developed. This article discusses the process, output, and outcome of the assistance and consultation done in a partnership between Universitas Dhyana Pura lecturers and students, as well as the manager and five members of Catur Paramitha co-op who are directly involved with the day-to-day operation of the coffee shop.

METHODS

Corresponding to the three main objectives of the community empowerment project—when it comes to designing a concept for the coffee shop, planning the menu, and developing suitable product offerings—the Undhira team worked closely with the UUP Catur Paramitha team to conduct three steps of activities using different methods to achieve said objectives. Firstly, the concept design was conducted in the early months of 2019 using Focus Group Discussion Method with mind-mapping to arrive at a concept to be used as the Unique Selling Proposition (USP), from the teams derived the menu to be planned and products to be developed.

Secondly, a consultation process was conducted with UUP Catur Paramitha partners providing feedbacks along the way, to plan a set of menu that matched the concept already put forth and one that is feasible and implementable—given the conditions and limitations at the coffee shop. In this step, the Undhira team also provides necessary equipment and tools for the menu being planned, provided by a community engagement grant program from the Ministry of Research, Technology, and Higher Education of the Republic of Indonesia.

Thirdly, the Undhira team conducted training and education related to new products development, i.e., different coffee brewing methods. The partners at UUP Catur Paramitha had previously been given training on manual brews and espresso-based coffee by a CSR program of a local bank and a national government-owned company (BUMN). However, they still needed to be trained in several new menu items related to coffee preparation methods that relate closely to the USP of the coffee shop. In addition, the partners have not made any standardized recipe for the products they already master. As such, the Undhira team helped with creating a standardized recipe for all menu items and products to be sold in the coffee shop.

RESULTS AND DISCUSSIONS

Based on the objectives and the corresponding activities done in partnership with UUP Catur Paramitha, the results of this community empowerment project can also be divided into three main section. Firstly, the Undhira and Catur Parramitha teams arrived at a concept for the coffee shop that focuses on locally grown and produced single origin coffee, as the coffee shop is designed to exclusively feature the coffee grown and processed by the co-op and at the co-op. Additionally, it was conceptualized that the USP of this coffee shop is that guests enjoy different coffee brewing methods using the coffee that is produced and processed in by a single producer—right where the coffee is being produced. Guests can enjoy the unique flavors of Kintamani Arabica coffee while taking a tour of the coffee plantation and processing area. Another uniqueness that is highlighted in this coffee shop is the versatility of coffee. From a single origin coffee, various flavor profiles and nuances can emerge through different brewing methods.

After consultation and careful consideration, the partner chose to use the branding "Catur Paramitha Coffee Shop", in order to boost sales of retail products that are available for guests to purchase at the coffee shop. The motto for the coffee shop is *"Kopi Lokal, Cita Rasa Global"* ("Local Coffee, Global Flavors"). The teams settled with the English tagline "Locally Farmed, Freshly Prepared, Universally Enjoyed"). In addition, the Undhira team also helped the partner to come up with their coffee philosophy, that is used also in the menu of the coffee shop (Figure 1).

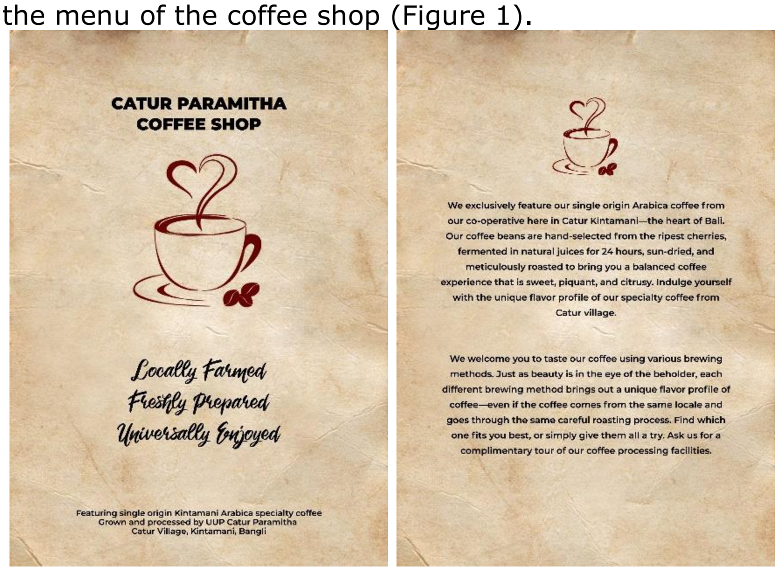


Figure 1. Coffee Shop Name, Tagline, and Philosophy

Secondly, the Undhira team assisted the partners at UUP Catur Paramitha to plan a menu set for the newly opened coffee shop. Through FGD, consultation, continued feedback, menu trials, eliminations of infeasible items, design and redesign, at the end the teams arrived a four-part menu, i.e., (1) Coffee Around the World, (2) Espresso-Based Coffee; (3) Manual Brew; and (4) Tea. "Coffee Around the World" is a unique menu development that highlights the versatility of coffee. Even though the coffee shop exclusively features single origin Kintamani Arabica coffee, the different methods of preparation from around the world showcase the unique flavor profiles guests can enjoy from this single origin coffee shop (Figure 2).

The various coffee preparations "around the world" feature Bali Coffee as the flagship method of brewing coffee in Bali. In addition, it also features brewing using French Press coffee plunger or *cafetière*. Correctly used, this brewing method guarantees that the coffee produced is rich of flavor and aroma [6]. The French Press is a glass pot with a plunger, which serves as a filter. Coarse ground coffee is added into the beaker and more hot water is poured into it. The plunger is then placed on the top of the pot and the mixture is let stand for around four minutes. After that, the plunger is slowly pushed down to the bottom. The coffee shop also offers Vietnamese Drip method, using coarsely ground coffee, which involves putting coffee groungs inside a metal *Phin* filter that is placed above a glass. Hot water is subsequently poured over the coffee, which gradually releases strong drops of hot coffee into the glass already containing thick sweetened condensed milk—the key ingredient for Vietnamese coffee [7]. Optionally, ice cubes can be added to make Vietnamese iced coffee.

Additionally, the coffee shop also features Turkish Coffee, which is a unique coffee brewing method that involves heating finely ground coffee, sugar, and room temperature water in a special heat-resistant cup called *Cezve* on a heat source (typically a stove) until the coffee mixture comes to a simmer, then poured into a small porcelain cup [8]. The team also introduced Colombiano coffee brewing method to the partners at Catur Paramitha, which involves heating up a mixture of water and brown sugar on a stove until boiling, then adding ground coffee into the boiled sugar-water mix, before straining it and serving it in a cup. Lastly, the coffee shop also features brewing coffee in a special Italian Moka Pot, which involves pushing up boiling water pressurized by steam through ground coffee, also done on a stove [8].

In addition, the partners at Catur Paramitha Coffee Shop are already trained in espresso-based coffee making, as they recently received a grant of coffee-making tools and training from a local bank and a government-owned company (BUMN). The third group of menu developed was Manual Brew. Of the various manual brew methods, four was chosen as these are the methods with which the partners are already familiar and already have the tools. These methods include V60, which is a method of pouring 95-degree water over medium-to-course grind coffee, that sits on a triangular-shaped container with paper filter, into a vessel; Syphon, which refers to a full immersion brew system that passes the coffee from one chamber into another; Aeropress, which uses hand pressure to force the water through the ground beans, using air pressure instead of gravity to force water through by pushing down on the plunger; and Cold Brew, which involves soaking unbrewed coarse-ground coffee in a special tool for 8 to 12 hours to arrive at a coffee that is less bitter, yet still sweet-sour and intense [8]. The cold brew method has been especially popular in recent years.

Lastly, the coffee shop features a tea that comes from coffee by-product, called cascara tea. This tea is locally produced at UUP Catur Paramitha, which refers to dried coffee skins (cherries) from 95% red Arabica beans typically discarded during the production, but can be developed into a beverage with distinctive flavor [9]. However, with the zero-waste concept of UUP Catur Paramitha, the proprietor has developed a unique "tea" from dried coffee cherry with a distinctive flavor one cannot find in any other tea-type beverages. This is a unique offering for guests who do not enjoy coffee yet still would like to try something caffeinated from Catur Paramitha Coffee Shop.

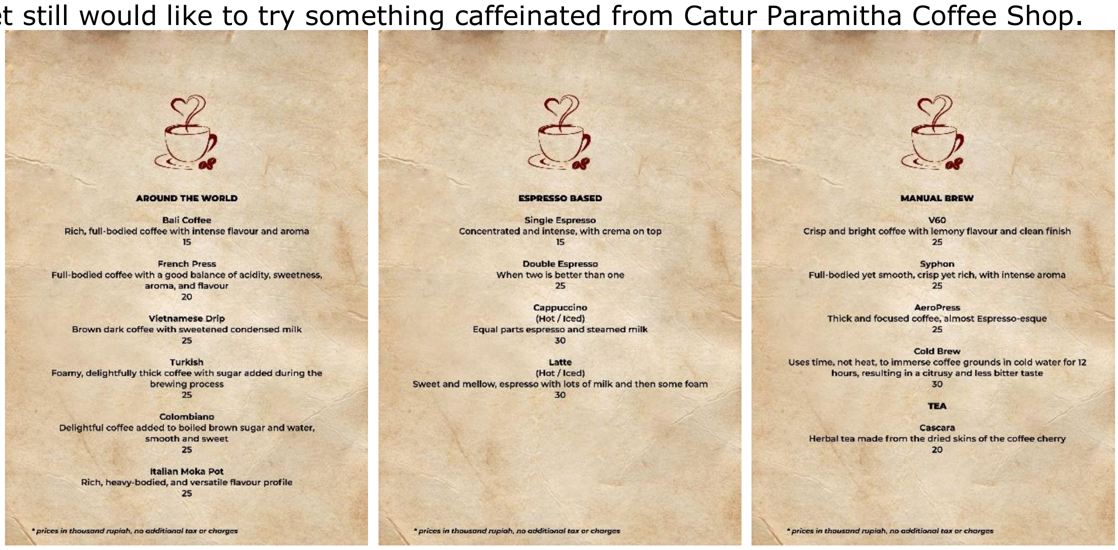


Figure 2. The Menu of Catur Paramitha Coffee Shop

ISBN: 978-602-53420-4-2

To ensure consistency in service and to improve the aptitude level of the partners who are involved in the daily operations of Catur Paramitha Coffee shop, the team helped the partners in developing standardized recipes and SOP for each menu item, as well as training them in preparing items that are new on the menu, including Vietnamese, Turkish, Colombiano, Moka Pot Cold Brew, and French Press (both for coffee and for Cascara Tea). The standardized recipe includes standard weights and volume, step-by-step procedure, including the containers and amenities with which to service each type of coffee. The team also provided adequate training and several practice sessions to ensure that all partners have the adequate skills for making and serving the menu items (Figure 3).

Catur Paramitha Coffee Shop
Resep Terstandar

Nama Produk:	**VIETNAMESE (BESAR)**	Hasil:	1 porsi
Alat Khusus:	Phin Filter Besar	Porsi:	135 ml
Ukuran Penyajian:	Cangkir/gelas kopi sedang	Waktu:	6 menit

Bahan Baku	Takaran Kuantitas		Prosedur Pembuatan
	Berat	Volume	
Susu kental manis		12 ml	1. Tuangkan 4 sdt susu kental manis ke dalam cangkir kopi kecil, sisihkan
Kopi bubuk giling medium/sedang	18 gram		2. Tuangkan 6 sdt bubuk kopi giling medium ke dalam Phin filter lalu ratakan
			3. Tekan bubuk kopi di dalam Phin filter dengan alat penekan, namun jangan terlalu kencang
			4. Letakkan Phin filter di atas cangkir kopi yang sudah diisi susu
Air mineral		120 ml	5. Panaskan 120 ml air, setelah mendidih lalu tuangkan sedikit ke dalam Phin filter, cukup untuk membasahi kopinya saja
			6. Setelah 15 detik, tuangkan sisa air ke dalam Phin filter
			7. Tutup Phin filter lalu tunggu selama 4-5 menit sampai air seduhan kopi menetes sepenuhnya ke dalam cangkir/gelas
Air mineral		100 ml	8. Suguhkan dengan sendok teh, cookie dan satu gelas kecil air

Figure 3. Standardized Recipe and Menu Training

CONCLUSION

The community empowerment team from Universitas Dhyana Pura has been able to assist its partner in developing a unique coffee shop concept that highlights the single origin coffee, yet allowing the versatility of the coffee to be the shop's Unique Selling Proposition. Based on the partnership demonstrated in this project, the concept, menu items, and products developed are able to highlight the two interesting ideas that the Catur Paramitha Coffee Shop has to offer, namely the singularity in origin and versatility and brewing methods and thus flavor. Since the coffee shop is open for business, the sales of UUP Catur Paramitha has increased 30-40% year-to-year. The increase is both through direct sales of the menu items in the coffee shop (i.e., brewed coffee) and more importantly from indirect sales of retail coffee items that the shop is offering. As visitors are interested in stopping by for a cup of coffee, many are purchasing the retail products to take back with them.

REFERENCES

[1] Susanto PC, Adiada AAK, & Suyasa NLC. 2018. Identification of tourism potentials in Catur village Kintamani. *Proceedings of Seminar Nasional Teknologi, Sains, dan Sosial Humaniora (SINTESA). Pp.* 527-537. http://dx.doi.org/10.36002/snts.v0i0.524

[2] Wulandari M, Susanto PC, Andityawan IM, Sinlae JB, Wiryadikara RP, & Adiada AAK. 2018. Pendampingan Kelompok Sadar Wisata Desa Catur Kintamani Menuju Desa Wisata yang Kekinian. *Proceedings of Seminar Nasional Aplikasi Iptek (SINAPTEK).* Pp. 71-82. http://dx.doi.org/10.36002/sptk.v0i0.459

[3] Suyasa NLC, Setiawan IMR, Regina M. 2018. Kopi arabika jempolan Catur village, Kintamani: Product and promotional mix analysis. *Proceedings of Seminar Nasional*

Teknologi, Sains, dan Sosial Humaniora (SINTESA). Pp. 391-396. http://dx.doi.org/10.36002/snts.v0i0.507

[4] Setiawan IMR, Andityawan IM, Adiada AAK, Dinata IKA, Ririhena JCP, & Susanto PC. 2019 (in press). Diferensiasi Pemasaran Produk Kopi Arabika UUP Catur Paramitha Melalui Packaging dan Branding Yang Menyasar Konsumen Milenial. *Paradharma: Jurnal Aplikasi Ipteks,* 4(1).

[5] Andityawan IM, Adiada AAK, Krisnayanthi NLY, Susila KEW, Anugerah DZ, & Susanto PC. 2019 (in press). Single Origin Edu-Trekking: Pengembangan Wisata Edukasi Berbasis Kopi Gelombang Ketiga Melalui Social Influencers di Catur Kintamani. *Paradharma: Jurnal Aplikasi Ipteks,* 4(1).

[6] Solano F. 2015. French Press – The History & Brewing Guide. *Perfect Daily Grind,* 10 May. Viewed 1 October 2019. <https://www.perfectdailygrind.com/2015/05/french-press-the-history-brewing-guide>.

[7] Benayoun M. n.d. Vietnam: Cà Phê Đá. *196 Flavors.* Viewed 1 October 2019. <https://www.196flavors.com/vietnam-ca-phe-da/>.

[8] Haines D. 2019. How to Make Coffee: 17 Best Coffee Brewing Methods (Ultimate Recipe Guide). *Enjoy Java.* 20 April. Viewed 1 October 2019. <https://enjoyjava.com/how-to-make-coffee/>.

[9] Zeckle S, Susanto PC, Erfiani NMD. 2019 (in press). Market Potential of Cascara Tea from Catur Village Kintamani Bali. *Proceedings of International Conference of Fundamental and Applied Research (I-CFAR).*

TEMPLE ARCHITECTURE AS TOURISM ATTRACTION WITH GREEN DESTINATION CONCEPT AT BADUNG RIVER

I Gusti Ketut Purnaya[1], I Made Trisna Semara[2], Ni Luh Supartini[3]

[1,2,3]Sekolah Tinggi Pariwisata Bali Internasional
igkpurnaya@gmail.com, trisna.semara@stpbi.ac.id, supartini@stpbi.ac.id

ABSTRACT

The cultural tourism is not satisfactory developed, many cultural heritage buildings have been damaged such the architecture of the temple. Therefore, it is required to change society' perception to preserve culture and tradition. Temple architecture as one of tourism destinations with green destination concept will be an alternative in protecting the exitance of cultural heritage. The purpose of this study is to identify the potential of temple architecture as tourist attraction with green destination concept. The method used in this study was qualitative. The data were collected through documentation, literature study and observation. The result of this study found that the potential Balinese traditional architecture of temples need to be developed as a tourist attraction. The concept of development is green destination. The Balinese traditional architecture of temples also maintained Balinese taksu thereby strengthening cultural tourism. The architecture of temple will have important role in improving quantity and quality of tourists.

***Keywords**: temple architecture, tourist attraction, green tourism*

INTRODUCTION

Tourism in Bali is growing rapidly. It can be seen from the data of the Central Bureau of Statistics of Bali which states that the level of tourist arrivals increased 15.62% which is 5.69 million compare than 2016 which recorded 4.92 million tourists. Refers to Regulation of Bali no 10 of 2015 concerning Regional Tourism RIP of Bali from 2015-2029 that states the target of foreign tourist arrivals in 2020 is 5 million tourists. Based on that, the target of foreign tourist visits has been reached in 2017 by 15 million, in which Bali was the biggest contributor to tourist arrival in Indonesia which reached 40.58%.

Denpasar City is a city that has a number of tourist visits that need to be maximized in rate of growing. According to Tribun-Bali.com (2018) states that the number of tourism visits to Denpasar is lower than Ubud. This is caused by the development of tourism that only focused on Badung and Ubud Regencies. Badung was developed as the center of the hotel area and MICE (*meeting incentive conference exhibition*) while according to Suara.com (2019), Ubud will be designed as a global standard gastronomic destination by the world tourism organization or UNWTO. Badung and Ubud are the most focused in developing tourism in Bali. Therefore, it has new impacts such as imbalance of regional development, traffic jams, changes in land use and excessive exploitation of natural resources.

The Government of Bali has tried to make steady distribution, one of them is to develop city tourism. The potential tourism that will be developed in city is familiarized as cultural tourism. A new strategy is required in developing city tourism in order to run regional economy. One of strategies is developing Green Tourism concept. According to The International Ecotourism Society in Arismayanti (2015), green tourism is an tourism organization that responsible to natural places, which support environment preservation and improve welfare local community. In other hand, destination is an area as geographical area that has attractions, access and amenities. One of city tourism potential with Green Tourism is Architecture of Temple.

Temple architecture is a part to express the unique identity of a community (Putra, et.al.,2017). Temple is a form of tangible cultural heritage which in addition to primary function as a holy place for Balinese for praying, on the other hand temple also as Tourism Destination (Widiarta, 2016). Temple is also one of traditional architecture design based on the concept of *Kosala-Kosali* and *Asta Bumi* and other palms based on Balinese culture. However, in globalization era, traditional architecture is becoming absolute and many old buildings are lost neglected. It is caused by the lack of understanding from community that traditional elements are ancient.

From the explanation above, the purpose of this study can be formulated as follow: to identify the potential of temple architecture as a tourist attraction in order to encourage Green Destination. It is required to change society's perception to preserve its culture and traditions. Traditional architecture is one way that has classic aspects. Culture and tradition will be preserved and sustained through tourism.

METHODS

This research used qualitative method based on the philosophy of post positivism, it is used to examine natural conditions of objects (the opposite of experiment), in which the researcher as a key instrument, technic sampling used was purposive and snowball, technic of data collection was triangulation, and data were analyzed by qualitative, and the result of qualitative were more focused on generalization (Sugiyono, 2012). The data were collected through documentation study, literature study and observation.

FINDINGS AND DISCUSSIONS

Philosophy of Temples in Bali

The word of temple comes from Sanskrit, that is ‘pur’ means fortress, tower, palace or city. According to Sandiarsa (1993), the word temple shifted meaning into a holy place. Temple were built as a place for praying, to provide good place for concentration. On another hand, the temple is sacred building of Hindus which used for praying and other activity such as socialization. (Firmansyah, et.al.,2016).

For Balinese people, temple is not a place occupied by God continuously, only intersection. Temple was interpreted as a special place for god at holy days. Based on this concept, the terms of temple are intersection. The building of temple is one of architecture.

Temple Architecture

Based on Vitruvius's theory, architecture is a strength (Pollio, 1874). Architecture is also a living space where people feel happy. Space itself refers to the entire space that occurs because it was created by humans or spaces that occur by themselves or naturally, such as caves, trees, etc (Romondt, 1951). Gutman (1997) also said that architecture is a production environment that not only bridges humans and the environment, but also as a vehicle for cultural expression to regulate physical, psychological life. Architecture is also a synthetic discipline and always includes three things namely technology, function and aesthetics in each design (Tandali & Egam, 2011). So it can be concluded that temple architecture is an art based on the concept of local wisdom that includes three aspects of function, form and meaning in its design as a sacred place.

Temples generally has cultural and historical values inherited from ancestors. In its construction there are relics of objects or sacred places, or sacred symbols associated with a series of worship of God. Temples are generally place for keeping objects for hundred years such as architectural statues, phallus, inscriptions, purana and etc. It is also emphasized by I Gusti Ngurah Sudiana at web kemdikbud.go.id (7/9/2017) that temples buildings are cultural heritage buildings which need to be preserved because they have important values for history, science, education, religion or culture through the process of stipulation (Law of the Republic of Indonesia No. 11, 2010)

ISBN: 978-602-53420-4-2

Temples as Tourist AttractionS

The temple of Luhur Candi Narmada Tanah Kilap at Badung River the function is not only as a holy place but also as tourism attraction. This is underlined by Denpasar City Regulation No.12, 2015 concerning Management of Cultural Heritage which states that the city Government and everyone can utilize the Cultural Heritage for religious, social, educational, scientific, technological, cultural and tourism interests. Based on Law No. 12 Year 2015, temple is a part of cultural preservation. From those understanding cultural heritage that is need to be preserved because it has important values for history, science, education, religion or cultural through the process of determination. The temple has a unique architecture that can be used as an attraction for tourist. According to RIPPARKAB, the architecture of temple is chosen as tourist destination because of Bali Tourism development policy refers to the concept of Bali Cultural Tourism. It is also stated on Bulitindewata online (2018), 65% percent of foreign tourist visited Bali because of Balinese culture.

Architecture and tourism are actually components that cannot be separated. Stated on Republic.co.id (2017), Mari Elka Pangestu said that architecture and tourism are not directly related but they provide value for tourism. In online magazine pikiranrakyat.com (2014), Mari Elka Pangestu also said the high interest of archipelago architecture can be seen from the invitation from Curator of Venica Architecture Bienalle from Netherlands Rem Koolhas. It showed that the traditional architecture of Indonesia is attractive for world community.

Balinese traditional architecture is a concept of local genius. According to Bali travel news (30/1/2017) stated that Balinese architecture is mirror of Culture and *Taksu* of Tourism. In Metronbali.com (22/9/2013) also supported the statement that Balinese traditional architecture maintain cultural tourism. For foreign tourist, it is very attractive. Therefore, Minister of Tourism Arief Yahya confirmed that local architecture must be developed to invite foreign tourist to vist Indonesia (Balitravelnews.com, 2016).

Traditional architecture is a concept based on the development of green tourism. Green tourism is a term used for sustainable tourism in which includes sustainable of environment, economy, and socio culture (Azam &Sarker, 2011). Meanwhile, according to UNWTO green tourism is travel to destinations with sustainable environment in which flora, fauna, cultural heritage is the main attraction with minimal impact for environment. One example of developing green tourism is green architecture.

Green architecture mostly taken from traditional architecture. Green means sustainable, earth friendly, high performance building. Green architecture can be seen from economical traditional society behavior, no-consumptive of natural resources, and minimal of technology used and equipment that affect global warming. Traditional architecture came first before green architecture that is a sublimation of traditional architecture.

Traditional architecture of temple building can be an alternative in developing green tourism. Related to this, Denpasar city has variety of tourism potential such as natural attraction, culture and artificial. Therefore, the architecture of temple can affect the quantity and quality of tourist. And still the existence of temple which is used as tourist attraction protected. This is accordance with RIPPARKAB tourism development stated that the government responsible for maintaining, developing, and preserving tourist destination, hence the next generation can enjoy it.

The potential of traditional Balinese architecture of temple can be defined into three components those are based on function, shape and meaning of the temple. Balinese traditional architecture can be interpreted as a space for Balinese people who has developed from generation to next generation with all rules inherited from the ancient until certain period with some characteristics that revealed on *Lontar Asta Kosala-Kosali, Asta Patali, Asta Bumi* and others. For further explanation can be seen as follows:

a. Temple Functions

In the past, the temple was defined as a city or fortress but nowdays it has changed to a holy place. The shrine itself used to be called heaven or *Hyang*. In the development, the temple functioned as a sacred place to worship God Almighty and *Bhatara or Dewa*

ISBN: 978-602-53420-4-2

pitara, the ancestral holy spirit. However, there are still found the word Pura used for name cities such as *Mangupura*, *Semarapura, and Amlapura.* Hindu culture believes that the mountain as the realm of spirits and gods. So that the temple can indirectly function as a place of worship for the Gods manifestation of God Almighty and for worship of spirits an ancestor called *Bhatara*. It is also based on Hindu culture that believed that the ritual process of the ancestral holy spirit could reach the same place and was worshiped together in a place of worship with a god called Atmasiddhadewata. Atmasiddhadewata can be interpreted as the unity of atman with Brahman. Brahman here is interpreted as the Supreme God.

The function of Temple based on characteristics can be grouped into various types such as social bonding, political, economic, birth line. Social bonding, among others are based on the territorial ties, ties of recognition for merit of a holy teacher, political ties in the past in order to unite the people and their territory. Economic ties are based on the jobs such as framer, fisherman, trader and etc. Lineage ties are based on birth lines with further development.

In globalization era, the temple functioned by the community as a living monument. The temple as a living monument indirectly causes environmental conservation. The spiritual life of society, the value of sacredness, religion, and magic cause people afraid to damage the environment. The need for a variety of natural materials for ritual ceremonies motivates the community to cultivate a diversity of vegetation and fauna.

Its various potentials, the temple can be utilized as one of the very interesting tourist attractions to visit. Social, educational, and recreational functions are functions of temples as tourist attractions. Social function is a harmonious relationship that occurs between the community and tourists through socio-cultural activities / activities. The educational function is an activity to recognize the history of ancestral cultural heritage. Recreational function is a tourism development activity that makes the temple a tourist attraction.

b. The Shape of the Temple

The potential tourism of temples can be seen from the unique structure or layout of the temple itself. A temple divided into three parts, namely: *jaba pisan* (outer page), *middle jaba* (middle page) and *innards* (inner page). There is also a temple consisting of two parts, namely: *jaba pisan* (outer page) and *innards* (inner page). There is also a temple consists of seven pages named Besakih Temple. The division of this temple based on macrocosm (*bhuwana agung*). Those three parts symbolizes 'triloka' namely bhurloka, bhuwahloka and swahloka. The division of two parts indicate upper realm (urdhaa) and the lower realm (adhaa) namely akasa and pertiwi. While the division of temples on 7 parts symbolizes 'saptaloka' which is seven layers or levels of the natural world consists of Bhurloka, Bhuwahloka, Swahloka, Mahaloka, Janaloka, Tapaloka and Satyaloka. Lastly, temple consists of one part symbolize of 'ekhabuwana', a singleplace between the lower realm and upper realm.

In addition, the uniqueness of the temple can be seen from the architectural buildings that created from each courtyard of the temple. In front of yard there are buildings such as a hall where the *kulkul (*traditional equipment) is hung, a place such an auditorium for performing arts, balinese kitchen and granary. The third parts is called inner pages including the most sacred pages containing buildings for God Almighty and the manifestation gods in between the innards and the middle part, they are usually separated by a brackets, before reaching the inner courtyard (viscera) through the bracket, they must first enter the temple briefly, the first entrance from the outer courtyard to the central courtyard. This gate temple is a symbol of the breakup of the *Kailasa* mountain where Shiva was worshiped.

On the left and right side of the entrance temple there are usually *Dwarapala* statues (statues of the doorman), a statue of giant as the guardian of the leading temple. The entrance to the inner yard (viscera) is called *Grand Kori. It* is always closed and only opened when there is a ceremony at the temple. The community does not use the Grand Kori as a way for entering the innards, but usually uses a small road which is usually called "*bebetelan*", located on the left or right of the Grand Kori. At the front of the Grand Kori, there is also a statue of *Dwarapala* which is usually patterned with a statue of the gods. Above the grand kori entrance there is a giant headdress, which in Balinese temples is called *Bhoma. Bhoma* is the son of the god Vishnu with his mother goddess Pativi who is trying to defeat heaven. Eventually Bhoma was killed by the god Vishnu himself. His head was carved into the grand kori. According to Hindu stories, the placement of the head of Bhoma on the grand kori is intended so that people who intend to enter the temple evil, blocked or neutralized. While those who are pure in heart will enter His grace.

Another potential can be seen from the horizontal and vertical division of the temple. The division of the temple page which is generally divided into three parts is a horizontal division, while the division in *palinggih-palinggih* is a vertical division. This horizontal division symbolizes "precept" (the material elements of the universe) while the vertical division is symbolic "purusa" (the mental / spiritual element of the universe). The unification of the conception with purusa in the structure of the temple is symbolic of "Super Natural Power". That is what causes people to feel the spiritual vibrations.

c. Meaning of Temple

Temple is believed to be a spiritual building, not a dead object, it is always a ritual. One of the rituals that Bali has is to "guide or perform the Ida Bhatara which means asking the gods to come down to earth, and the ceremony to bring him back to paradise.

With the existence of these ritual activities, the temple is considered to be a replica of heaven. The temple as a place of worship of heaven can be seen from the shape or structure of reliefs, pictures and ornaments. In sacred buildings, reliefs or decorations depict heavenly beings, such as statues of the gods, spacecraft, heavenly trees (weapons, etc.), as well as sacred creatures such as *widyadhara-widyadhari and kinara-kinari*, and etc. Heaven is depicted at the top of Mahameru mountain, therefore the image of the temple is a replica of Mahameru mountain.

The potential above supports religious tourism activities. Religious tourism itself is a tour that is associated with religious activities, history, customs and beliefs of the people. One of the developing religious tourism in Bali is Tirta Yatra. Tirta Yatra is a journey made to visit holy sites, historic sites, and sacred places in order to strengthen faith and truth in their beliefs.

The meaning of the temple is so deep, storing various kinds of uniqueness of its spiritual value. The temple has a historical story about its existence. Not just any location can be used as a place to build temples. In the Balinese tradition, land that is suitable for use is land that smells good and does not smell bad. Whereas the ideal places to build temples are very beautiful places with vibrations of holiness radiating at these ideal locations. Thus temples are very interesting to visit as one of the tourist attractions.

CONCLUSION

As one of the cultural heritages, the temple is a cultural heritage that needs to be preserved because it has important values for history, science, education, religion and culture. Beside from being a holy place, the temple is used as a tourist destination. Traditional Balinese architecture in the temple building has the potential to be developed as a tourist attraction. The concept of development is based on the development of green tourism or green destination concept. The traditional Balinese architecture of the temple buildings facilitated to maintain the Balinese *taksu* thereby strengthening cultural tourism. Indeed, temple architecture will play an important role in increasing the quantity and quality of tourists.

REFERENCES

[1] Arismayanti, N. K., 2015. Pariwisata Hijau Sebagai Alternatif Pengembangan Desa Wisata di Indonesia. *Jurnal Analisis Pariwisata,* 15(1), pp. 1-15.

[2] Azam, M. & Sarker, T., 2011. Green Tourism in The Context of Climate Change Towards Sustainable Economic Development in The South Asian Region. *Journal of Enviromental Management and Tourism,* 2(3), pp. 6-15.

[3] Balitravelnews.com, 2016. *Bali Harus Konsisten Jaga Arsitektur Lokal.* Viewed 22 June 2018. <http://bali-travelnews.com/2016/12/27/bali-harus-konsisten-jaga-arsitektur-lokal>.

[4] Balitravelnews.com, 2017. *Arsitektur Bali , Cermin Budaya dan "Taksu" Pariwisata.* Viewed 23 June 2018. <http://bali-travelnews.com/2017/01/30/arsitektur-bali-cermin-budaya-dan-taksu-pariwisata>.

[5] Bulitindewata.com, 2017. *Faktor Pemicu Pergerakan Turis EROPA Ke Bali.* Viewed 18 June 2018. <https://www.buletindewata.com/pariwisata/2017/07/25/2168/faktor-pemicu-pergerakan-turis-eropa-ke-bali.html>.

[6] Firmansyah, M. R., Antariksa & Ridjal, A. M., 2016. Proses Ruang Pura Penataran Agung Lempuyang Luhur Karangasem Bali. *Arsitektur e-journal,* 9(2), pp. 1-10.

[7] Gubernur Bali, 2015. *Peraturan Daerah Provinsi Bali Nomor 10 tahun 2015 tentang Rencana Induk Pembangunan Kepariwisataan Daerah Provinsi Bali tahun 2015-2029,* Denpasar: Provinsi Bali.

[8] Gutman, R., 1997. *Architectural Practice: A Critical View.* 1 penyunt. New York: Princeton Architectural Press.

[9] Kemdikbud.go.id, 2017. *Pengelolaan dan Pelestarian Cagar Budaya dalam Persfektif Agama dan Budaya.* Viewed 28 June 2018. <https://kebudayaan.kemdikbud.go.id/bpcbbali/2017/09/07/pengelolaan-dan-pelestarian-cagar-budaya-dalam-persfektif-agama-dan-budaya-2>.

[10] Metrobali.com, 2013. Badung Komit Lestarikan Arsitektur Tradisional Viewed 23 June 2018. <http://metrobali.com/badung-komit-lestarikan-arsitektur-tradisional-bali-gde-agung-arsitektur-bali-turut-mempertahankan-taksu-badung>.

[11] Pikiranrakyat.com, 2014. *Wisatawan Tertarik dengan Arsitektur Tradisional.* Viewed 22 June 2018. http://www.pikiran-rakyat.com/wisata/2014/08/10/292320/ wisatawan-tertarik-dengan-arsitektur-tradisional>.

[12] Pollio, M. V., 1874. *The Architecture of Marcus Vitruvius Pollio in Ten Books.* 10 penyunt. London: Capio Lumen.

[13] Presiden Republik Indonesia, 2010. *Undang-undang Republik Indonesia Nomor 11 Tahun 2010 tetang Cagar Budaya,* Jakarta: Republik Indonesia.

[14] Putra, I. D. G. A. D. et al., 2017. Karakter Style Arsitektur Pura Kentel Gumi Klungkung. *Seminar Nasional Sains dan Teknologi (Senastek) IV*, 14-15 Desember, pp. 1-8.

[15] Republika.co.id, 2014. *Menparekraf: Arsitektur Nusantara Berperan Menarik Kunjungan Wisatawan.* Viewed 23 June 2018. https://www.republika.co.id/berita/ gaya-hidup/travelling/14/08/10/na2vfy-menparekraf-arsitektur-nusantara-berperan-menarik-kunjungan-wisatawan>.

[16] Romondt, v., 1951. *Peninggalan-Peninggalan Purbakala di daerah Penanggungan: Hasil Penyelidikan di Gunung Penanngungan selama Tahun 1936, 1937 dan 1940 dan Beberapa Peninggalan Purbakal di Gunung Ardjuno Dikunjungi Dala tahun 1939.* 1 penyunt. Jakarta: Dinas Purbakala Republik Indonesia.

[17] Sandiarsa, 1993. *Pengertian Tempat Suci.* 1 penyunt. Jakarta: Balai Pustaka.

[18] Sugiyono, 2012. *Metode Penelitian Kuantitatif Kualitatif dan R&D.* 1 penyunt. Bandung: Alfabeta.

[19] Tandali, A. N. & Egam, P. P., 2011. Arsitektur Berwawasan Perilaku (Behaviorisme). *Media Matrasain,* 8(1), pp. 53-67.

[20] Utama, I. G. B. R., 2016. Keunikan Budaya dan Keindahan Alam sebagai Citra Destinasi Bali menurut Wisatawan Australia Lanjut Usia. *Jurnal Kajian Bali,* 6(1), pp. 149-172.

[21] Widiarta, I. N., 2016. Pengelolaan Daya Tarik Wisata Pura Taman Ayun Sebagai Bagian Dari Warisan Budaya. *Jurnal Master Pariwisata,* 2(2), pp. 124-142.

PROMOTING JAPANESE CULTURAL TOURISM THROUGH APPRECIATION OF AINU FOLKTALES AND ANIME

Ida Ayu Laksmita Sari[1], Wanda Listiani[2]
[1]Universitas Udayana, [2]Istitut Seni dan Budaya Indonesia Bandung
laksmita_sari@unud.ac.id

ABSTRACT

Japan ranks fourth out of ten favourite countries visited by Indonesian tourists after Malaysia, Singapore and Thailand. Promotion of airline ticket prices and tour packages through travel fairs and promotion of Japan to host the 2020 Olympics are contributing factors that will continue to make Indonesian tourists visiting Japan increases. Japan has always been famous for their natural tourist attractions such as Mount Fujiyama and Sakura flowers. In terms of culture, Japan is known as a country with a homogeneous culture. In fact, Japanese culture is heterogeneous as indicated by the existence of Ainu indigenous people who traditionally lived in the Hokkaido Islands, North Japan. Later, the Ainu ethnic group make use of their unique cultural and tradition to promote an ethnic tourism that attracted many domestic tourists. This article introduces the diversity of Japanese culture as a promotion of Japanese cultural tourism. This qualitative study began by selecting three Ainu folktales and Ainu-based story anime to be shared with 10 Japanese students, teachers, and lecturers in Denpasar. They were asked to choose and read three of the ten stories provided and watch the anime, then fill out questionnaire to indicate their response on Ainu culture and tradition. The study shows that the teachers gained new knowledge about the Ainu culture and understood the heterogeneity of Japanese culture. They were interested in spreading it to their students and fellow students. While the impact of the appreciation of folktales and Ainu-based story of anime in increasing Indonesian tourists to Japan remains to be awaited, the introduction of the diversity of Japanese culture through Ainu folktales contribute to the promotion on how the Ainu people in Hokkaido promote their ethnic tourism and to the introduction of various type of cultural tourism that Japan has to offer.

Keywords: *Ainu culture, cultural tourism, folktale, Japanese subculture*

INTRODUCTION

This paper introduces the Ainu culture based on oral traditions which form the basis of the rich cultural tourism appeal for Japan. Ainu are Japanese natives who were hundreds of years marginalized and not recognized as natives. Ainu's efforts to fight for their rights as indigenous people had been done for a long time, and were successfully recognized as an ethnic minority on May 8, 1997 when the enactment of the Ainu Culture Promotion Law by the Japanese Government (Hiwasaki 2000). Before that, they were forced to assimilate with Japan, in other words their existence did not recognized. Since its recognition, Ainu has increasingly been promoting their ethinic identity, among others through arts and culture including through the field of tourism. The focus of this paper is how readers of Ainu folklore in Indonesia can understand Ainu culture as a window to get to know the variety of Japanese cultural tourism.

Hunter (2013) outlines the Ainu strategy of developing cultural tourism by making their music and dance an attraction so that it is labelled with ethnic tourism. Hiwasaki defines as "a form of tourism in which the cultural exoticism of the host population and its" products, "such as clothing, music and dance, are the main attractions for the tourist" (Hiwasaki 2000: 395).

Akan Village is one of the Ainu tourist destinations in Hokkaido that offers beautiful scenery and beautiful gardens around Akan Lake. The Ainu legend is staged into music and dance as an attraction to complement the beauty of nature. Promotion of Ainu tourism can be seen as part of efforts to advance culture-based tourism of Japan.

Japan is famous of its manufacture industry, but in recent decades began to seriously work on the tourism sector. Japan's success in developing tourism can be seen from its achievement of fourth place in 140 countries in the 2019 World Travel and Tourism Competitiveness Index. The top ten are Spain, France, Germany, Japan, the United States, the United Kingdom, Australia, Italy, Canada and Switzerland (WTTC 2019).

The promotional effort paid off with the increasing number of tourists visiting Japan. Data from the Japan National Tourism Organization (JTB 2019) shows that in 2017, the number of foreign tourists coming to Japan was 28.6 million, while in 2018 it increased to 31.2 million. By 2019, until July, the number of tourist visits to Japan had reached 19.6 million. In 2020, Japan will host the Olympics, and from there it is expected that tourist visits to the Land of the Rising Sun will increase, with a target of 40 million tourists.

Data for July 2019 shows that Indonesia ranks 8th in the top 10 list of foreign tourists visiting Japan. The first to seventh ranks are Korea, China, Taiwan, Hong Kong, Thailand, Singapore, and Malaysia. The number of Indonesian tourists visiting until July is 25,200 (JTB 2019). The 8th order and the number of visits shows that Indonesia is a potential market for the Japanese tourism industry. For this reason, the Indonesian market needs to be informed more about Japanese culture so that their experience as tourists to Japan can be more impressive.

Japan's main attractions are twofold namely, nature and culture, and these are promoted under the slogan "Japan Endless Discovery" (Liaryora 2019). For natural attractions, it can be mentioned the popularity of Mount Fujiyama which is snowing in winter and cherry blossoms in beautiful blooms during the spring. In addition, Japan has parks containing hot springs and attractive bamboo forests as a nature-based tourist attraction, and of course snow in winter. For cultural appeal, it can be mentioned the sturdy old temples, cultural arts festivals such as dances, and Japanese cuisine. As for July 2019, Japan has 23 World Heritage Sites, including Himeji Castle, Historic Monuments of Ancient Kyoto and Nara (Wikipedia Japan 2019).

The distinctiveness of Japanese culture that has been seen from the lifestyle, food, and Japanese letters written everywhere, makes Japan famous as a cultural tourism attraction. Although the automotive and electronics industries are advanced in this country, Japan has a strong cultural identity. It's just that cultural identity is single, there is no variation. However, reality shows that Japanese culture is heterogeneous, marked by the existence of the Ainu culture as a Japanese subculture (Hasegawa 2010; Cheung 2003).

This paper aims to introduce Ainu culture through their folklore. In addition to showing the diversity of Japanese cultural treasures, also to offset the dominance of popular culture and Japanese animation that captivated the world including Indonesia through anime films, manga, and Pokemon games. The introduction of Japanese culture through the Ainu culture is also a way to introduce the attraction of Japanese cultural tourism in accordance with the slogan "Japan Endless Discovery".

METHODS

The introduction of Ainu culture is done by introducing students, teachers and lecturers who study Japanese. Their number is ten and in the data analysis, they are given a number with Reader or R: 01-10. Those who were chosen purposively were given to read three Ainu folklore and an anime to get their reception about Ainu art and culture. The three folklore are "Little Pot with Free Time", "Pukusa Plant Soul", and "Brothers Who Turn into Cabbage Birds", while the anime is titled "Golden Kamuy" (especially episodes 1 and 2 of 12 episode). The story was chosen because it strongly represented the Ainu culture, especially in terms of the belief system, the harmonious relations of the Ainu people with nature, and the art of the Ainu people. For the anime

"Golden Kamuy", besides containing a belief system, this anime is quite popular in Indonesia, meaning that it is included in the list of '35 anime that must be watched' by fans in Indonesia. After reading, they were asked to fill in a questionnaire that explored their reception of the contents of the story and anime, as well as the contribution of the story to their knowledge of Japanese culture. This study uses a qualitative approach by collecting qualitative data in the form of connoisseurs' comments on Ainu folklore and anime.

Data is analyzed with Reception theory or also known as reader response. As the name implies, this theory provides 'power to reader' in understanding literature. In his book, Literary Theory: An Introduction (2008), Eagleton asserts that:

> In the terminology of reception theory, the reader 'concretizes' the literary work, which is in itself no more than a chain of organized black marks on a page. Without this continuous active participation on the reader's part, there would be no literary work at all (Eagleton 2008: 66).

Reception Theory or Reader Response considers the reader as an active leader in giving meaning to the existing text. Text does not exist if it is not read and given meaning by the reader. Therefore, the reader is considered as important as the writer who created the text. This is in line with what Cuddon said that “A literary work is not an object which stands by itself and which offers the same face to each reader in each period. It is not a monument which reveals its timeless essence in a monologue” (Cuddon 2013: 339).

The use of reception theory in this paper aims to get the respect of readers who are the subject of research. The relationship between the reader and the story enjoyed will build an image of the place and culture that exists in the story. How is the reception of the reader and their enjoyment in relation to the understanding of the images that are read and the desire to tell others become part of the analysis of this paper.

FINDINGS AND DISCUSSIONS

The stories and folktales-based of anime ‘Golden Kamui’ chosen to introduce Ainu culture has an intertextual relationship. The story of 'Golden Kamui', for example, has an intertexual relationship with the story of "Brothers and Sisters Turning into Cabak Birdsl" because both of them contain scenes about making *citatap* food. In addition, "Golden Kamui" is also has thematic relationship with the story of "Little Pot with Free Time" because both present bear characters as special animal, pricely as god. The story "Pukusa Plant Soul" also has similarities with other stories, especially in terms of the Ainu belief system that gods can manifest in objects and plants, and gods can sanction humans who do not respect nature.

The audience response to the three folklore and the anime "Golden Kamui" shows that this story gives them additional new knowledge about Japanese subculture. Nowadays, Japan often easily associated with popular TV stories such as *Momotarou, Urashima Taro, Kasajiso, Kintaro, Usagi to Kame, and Kasa Jisou, Akezugirai no Amageru*. After reading the Ainu stories, the subject of this study learned a new story from Japan. They feel there are similarities, but also differences. Japanese folklore generally tells a lot about "Sun God", while Ainu tells "God of the Bear". The difference between the Ainu story and Japan is reflected in the R-07 comments in the following quote:

> *The themes and characters in the Ainu story are unique because they carry stories that I had not expected. For example, the story "A small pot that has free time" and the story "Pusuka plant souls". The story features unexpected objects that can be used as characters, for example pots, which I have never read in Japanese or Indonesian stories.*

The "Golden Kamui" audience can clearly capture aspects of the Ainu culture contained in the Golden Kamui. This happened because the word Ainu serign was mentioned in the dialogue. In addition, also because the character Asirpa, the cute little

ISBN: 978-602-53420-4-2

girl, is aN Ainu girl. The main male character, Sugimoto, is Japanese. The story line exentensively introduced Ainu culture, starting from belief, livelihood (hunting gathering), how to process food, crafts making skill such as weapons decoration (*makiri*), and expressions that are conveyed as gratitude before eating.
The audience said that the anime "Golden Kamui" gave it a number of aspects of the Ainu culture. This for example is represented by recipes from R-05 which convey:

> *After watching, there are some Ainu cultures that I can know, namely naming Ainu people who are different from Japanese people, hunting, making handicrafts such as weapon decoration (makiri) which will then be given to women who are loved, and culture of expressing thanks (hinna, hinna).*

Regarding the craft of making makiri weapon decorations, other viewers also delivered it, as well as with a tattoo on the lips for women (R-02). The audience of R-02 also conveyed the expression of gratitude that was said before the food and how to cook a typical Ainu cuisine, namely *citatap*. In addition to cooking the fugitive animals such as bears and squirrels, R-03 also said that he could get to know the other side of the Ainu people's hunting work, which is processing their catches to make commercially valuable good, as stated in the following sentence:

> *And their habit of processing their caught animals into food, even making money by selling it. For example, bear skin and the skin of squirrels and bear bile that are sold have high monetary value.*

In the story of two men who are condemned to become cabak birds, the scene of making *citatap* food is used to express the sons of disobedience, who do not want to share food with their parents. As a result of that disobedience, both are condemned to become birds, a clear message in Ainu culture that children must respect their parents who have raised them.

The audience comments were indeed revealed in the Golden Kamui anime. Of course in the brief and limited comments in the context of answering the questions in the questionnaire, not all aspects of the Ainu culture were revealed at the audience reception. For example, the concept of *wen kamui* (Evil Kamui) which is associated with the beliefs of the Ainu people does not want to eat bear meat that eats humans.

The audience felt there were some similarities in Ainu culture with Indonesian culture, for example the culture of cooking citatap together. The way to chop meat and process tupoai meat into citatap is considered by the audience similar to how to make lawar in Balinese gastornomy (R-02 and R-04). Audience R-04, wrote:

> *The same thing seems to be in the culture of eating. Ainu tribe makes a food called 'Chitatap' which means something that is made together. In Bali, there is a culture of making food that is carried out cooperatively as well, namely 'bats' or making lawar.*

The similarity is indeed seen in the way of processing and cooperation. However, the difference is, in the anime, there are only two people making *citata*, while in Bali making lawar is usually done by several people.

Others, there is a cultural compatibility with the people in Indonesia, especially Java and Bali, the Ainu ethnic represents their beliefs, thoughts and views through narrative stories, clothing motifs and wooden crafts that are daily life (R-05).

The readers felt the Ainu story was unique, but the uniqueness did not make Japan automatically having heterogeneous cultural identity, as represented by the R-06 commentary:

> *Judging from the Ainu story, Japanese society has the same homogeneous characteristics, namely believing in the existence of gods, believing in the meaning and philosophy of the past can be used as values that educate their generation to date.*

Different ways of looking at, different conclusions about whether Japanese culture is heterogeneous or homogeneous. Although it does not make the reader feel any striking difference, what is certain is that the reading of the Ainu story and the viewing of "Golden Kamui" make Indonesian readers who are subject to this study feel more familiar with the diversity of Japanese culture. They have the status of teachers and students feel grateful that they can read the new crita and wish to tell their friends or students.

The development of Hokkaido tourism has made Ainu culture a major attraction. The Ainu people develop ethnic tourism. In addition to natural attractions, they offer cultural and artistic attractions such as presenting folklore or legend based shows, such as a staging initiated by mid-2019 known as "Kamuy Lumina", a nighttime laser beam show with a park background in Akan Lake based the legend of "Konkuwa", the Owl God. For the Hokkaido tourism authority, using the rich stories of Ainu people as tourist attraction means the importance of provisions for potential tourists to get to know the legend so they can have a better quality of tourism experience.

CONCLUSION

Even though they feel the difference between Ainu and Japanese and even with Indonesian stories, readers feel that Japan is still a nation that has a homogeneous culture. The difference story, at the reception of the subject of this study, did not in itself change their view of the identity of Japanese culture. This happens because of the possibility of a strong Japanese cultural identity.

Readers of folktales and audience of Ainu folktales-based anime gain new knowledge about Ainu culture and also at the same time about Japan. This new cultural knowledge can be used as a suggestion to introduce Japanese culture to others outside popular stories such as "Momotarou", "Kintaro", "Doraemon", and "Pokemon". The new stories can become a provision for Indonesian tourists visiting Japan so they can get a deeper travel experience because they recognize Japanese cultural diversity.

There is a reciprocal relationship between making tourist attractions based on folklore with tourism development. The reciprocal relationship can be formulated that tourism can help in preserving folklore, and folklore helps present a unique cultural tourist attraction.

REFERENCES

[1] Cheung, S.C.H. 2003. "Ainu Culture in Transition", *Futures* 35, 951—959.

[2] Cuddon, J. A. 2013. *A dictionary of literary terms and literary theory* (5th edition). UK: John Willey Blackwell.

[3] Eagleton, Terry. 2008. *Literary theory: an introduction*. Great Britains: Blackwell Publishers Ltd.

[4] Hasegawa, Ko. 2010. Integration of the Ainu Minority in Japan: Enlightened Localism Combined with Universalism. Comparative Sociology 9: 663–685.

[5] Hiwasaki, Lisa. 2000. "Ethnic Tourism in Hokkaido and the Shaping of Ainu Identity", *Pacific Affairs*, Vol. 73, No. 3 (Autumn, 2000), pp. 393-412.

[6] Hunter, Justine. 2012. "Tourism off Center: Ainu Ethnic Tourism as Identity Construction and Artistic Expression in Modern Japan ", paper presented at 57th Annual Meeting of the Society for Ethnomusicology, Nov 3, 2012.

[7] JTB Tourism Research & Consulting Co. 2019. Viewed 20 September 2019. <https://www.tourism.jp/en/tourism-database/stats/inbound/#annual>.

[8] Llaryora, Álvaro. 2019. The Worldfolio: A New National Vision for Tourism in Japan. Viewed 22 September 2019. <http://www.theworldfolio.com/files/file/report-58876fe5daa53.pdf>.

[9] Wikipedia Japan. 2019. "List of World Heritage Sites in Japan". Viewed 22 September 2019. <https://en.wikipedia.org/wiki/List_of_World_Heritage_Sites_in_Japan>.

[10] WTTC. 2019. "The Travel & Tourism Competitiveness Report 2019", published by the World Economic Forum.

ISBN: 978-602-53420-4-2

ISBN: 978-602-53420-4-2

MANAGING WASTE THROUGH TECHNOLOGY UTILIZATION

Paula Dewanti[1], I Made Bali Merta Yasa[2], I Kadek Mardianta[3]
[1,2 3] Institut Teknologi dan Bisnis STIKOM Bali
paula_dewanti@stikom-bali.ac.id

ABSTRACT
Well-known as a traveler's choice destination, Bali has recently been highlighted by its waste crisis, specifically, due to massive plastic usage. It is obvious, that the volume of waste is increasingly widespread. Focusing on Information System, this study develops a trash pickup service application, which can be considered as a tool for people' awareness towards waste management response, as well as taking a part in its running process. Taking advantage of Community Service as one of the main pillars in Tridharma Perguruan Tinggi, development process involves a local waste management organization that located in Denpasar City, and academics to experience factual learning, while providing them opportunities for giving back to the community.

Keywords: *app development, technology utilization, waste management*

INTRODUCTION

According to *Badan Pusat Statistik* (BPS-Statistics Indonesia) in 2018 Statistical Yearbook of Indonesia, Indonesia's population is estimated to reach nearly 262 million people who are dominated by productive age where around 30% are in Higher Education [3]. Based on data that has been published or released by the Ministry of Research Technology and Higher Education (*Kemenristekdikti*) on the Higher Education Database (*Forlap Dikti*), the number of Higher Education in Indonesia as of February 25th, 2019 is 4,708, which is an accumulation of 596 Universities, 223 Institutes, 2,553 College, 284 Polytechnics and 1,052 Academic [4]. Considering that, came to a thought how can academics help in waste management response through Community Service as one of the main pillars in *Tridharma Perguruan Tinggi* [5]. Bali took as a case, as one of tourist destinations in Indonesia, which has recently been highlighted through media coverage where the volume of plastic waste invasion is expanding and increasing [6] [7]. Noticeably, very few garbage bins are made avaliable, an unorganized trash drop following with facultative pick-up service, peoples' behaviours inclusive local community, domestic and foreign visitors [1] [2].

This study focused on Information System, in the form of building a Waste Management Information System application, which can be taken as a consideration to assist with the waste management process on a national scale. This study also includes students; enable them to gain practical knowledge. Through Information Systems Concepts and Applications learning and Community Service, the initial concept of AllClean Application was designed.

METHODS

Community Service Based Concept

Taking advantage of this Community Service obligation, development process involves a local waste management organization that located in Denpasar City, and academics to experience factual learning, while providing them opportunities for giving back to the community.

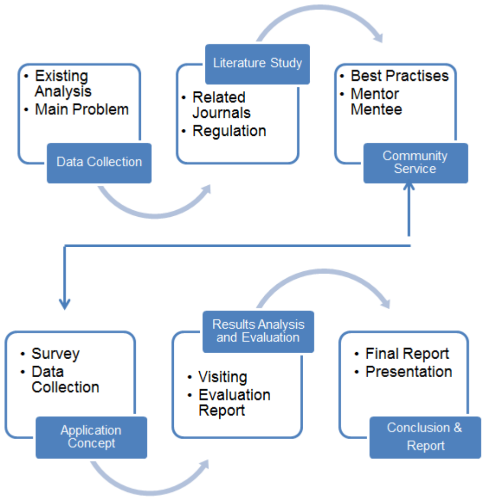


Figure 1. Community Service Based Concept

Research System

The prototype's approach is implemented at the end of the application creation, where the development and testing of a working model (prototype) of the application is developed through a repeated interaction process, and continuous improvement, to suit concepts needed by the user.

Based on a survey done to the community surrounding that was carried out in the beginning of the project, data obtained were formed of community patterns in disposing of garbage, including the amount of waste produced, type of waste, as well as frequency of disposing of their garbage. There was also an input from the community about conventional Waste Management that has been running [9].

The conducted survey also produces data on prices variants among service providers. This makes it easier for students to build partnerships with waste pick-up service providers that have been running. It is also open up opportunities for anyone; age of 16 and above, to join as an AllClean work partner. This will be prioritized for those who do not have a permanent job, but are committed to taking part in protecting the environment. Students are able to release a mobile-based Waste Processing Application, called 'AllClean' as a final result of group assignment on Information System Concept and Application class.

FINDINGS AND DISCUSSIONS

AllClean Application Concept

Initially, an AllClean Application concept that carries 'Better World without Trash' slogan arises because of students' concern for Waste Management on the island of Bali which has recently highlighted worldwide. The idea arose as a subject of group assignment in Information Systems Concept and Application class, mentored by the Author. How 'Service on Demand' option can help Waste Management systems? Students questioned the ability of garbage collectors in the field to deal with conventional waste problematic. In addition, that deserves an attention, is garbage pick-up service that costly, which is suspected to be a trigger for people's habits for littering. Conversely, how can garbage be a source of income for the community?

Given the above challenges, it is essential to discover efficient solutions such as collaborating with some registered tenants as service providers with maintaining quality of service, determining a fixed service fee, recruiting professional manning to handle office and customer service issues, last but not least, to develop an online system called AllClean application. Moving forward, this proposed AllClean application can provide consumers with a convenient service in managing their trash pickup, with no time and place limitation. Furthermore, service flow concepts are as follows:

1. Consumers open AllClean application and click 'Order Service' menu for ordering trash pickup service.
2. The Consumer will then be asked to determine trash bag needed, type of trash (organic/non- organic), as well as trash volume.
3. Next, Consumers determine the pickup point for trashing collection.
4. Upon completing all forms, system will automatically calculate its service fee.
5. If the customer has agreed, they need to confirm the order by clicking on the Order Process button.
6. The system will find a closer tenant.
7. Consumers can then wait for the garbage pick-up to arrive. Alternatively, a schedule can be requested so that consumers who are in a hurry can leave their trash in the appointed place and have it picked up as per schedule.
8. Meanwhile, payment can be made either through a direct payment after the service per order, or by monthly billing that accumulate for monthly orders received by the system. Settlement can be made in cash for a direct payment; while for monthly billing requires consumers to use bank transfer to AllClean account.

In building the application, the Information System cycle was applied by determining database (Originating), where data sources are obtained from community and people involved in local Waste Management. Next steps were to enter the data (Inputting) followed by Processing, where some data will be directly released as Information (Output) needed by users who need it; while some data is stored in Memory to be issued at any time needed by the user. Information and data collection carried out by building direct observations on existing system and procedures in Waste Management [8]. Interviews are also conducted with people involved in local Waste Management, for more information and data, experts and/or those who closely related to Waste Management in the areas that reachable by students.

Application Features

One of its main features 'On Demand' allows users to order a pick-up service for their garbage at an agreed time. In addition to that highlight, AllClean Application moreover opens opportunities for price or tariff agreements between users and service providers, which adjust to the user's location, type and amount of waste, prior using the AllClean service.

Explicitly, the existence of AllClean services, will provide control into Waste Management on the island of Bali, expected it can be a pilot and developed with a larger scale, so as changing the habits of the community for littering, at the same time helping to maintain public hygiene and health.

As mobile based, AllClean application also expected to be easily and effectively used by user ends, unbounded by time and place.

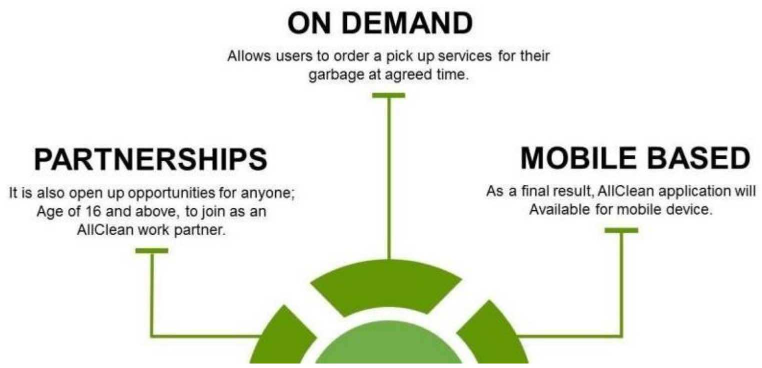


Figure 2. AllClean Application Features

ISBN: 978-602-53420-4-2

Data Flow Diagram

Figure 3 shows Data Flow Diagram (DFD) of AllClean App where there is data entering and data coming out and there are entities and data flow, using Yourdon symbols to describe the AllClean information system. There are 3 entities, namely Customer, Administrator and Operator where the Customer has 6 activities, namely login data, transaction data, order requests, profile info, transaction info and order info. Administrators have 6 activities, namely login data, invoice data, operator data, login info, invoice info and operator info. Meanwhile, the Operator has 4 activities, namely login data, activity data, login info and activity info.

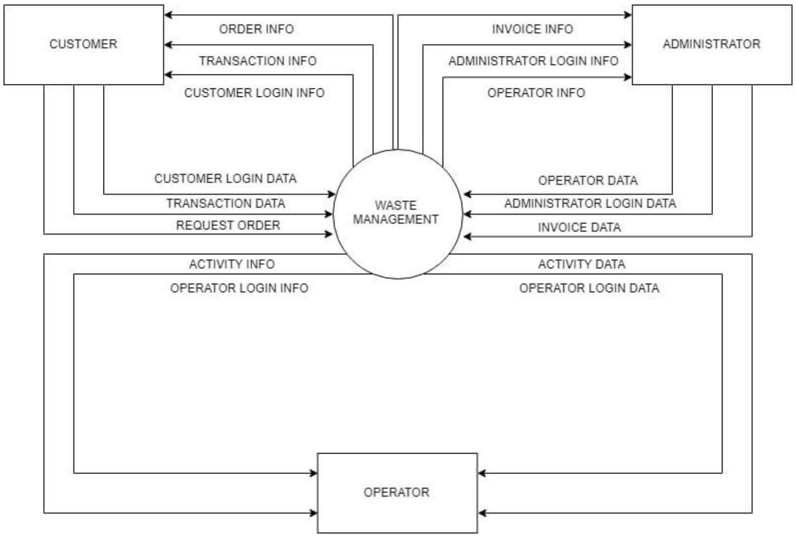


Figure 3. DFD of AllClean Application

Entity Relationship Diagram

Figure 4 shows the data's relationship on AllClean Application. There are five entities, namely Customer (1), Administrator (2), Operator (3), Account (4) and Invoice (5). Customer related to Account entity as 'Has'; Customer entity is also has relationships with Administrator entity, as 'Transactions". Administrator entity related to Operator entity, namely 'Get' relation and while Administrator entity has also relationship with an Invoice entity as 'Produce' (Generate).

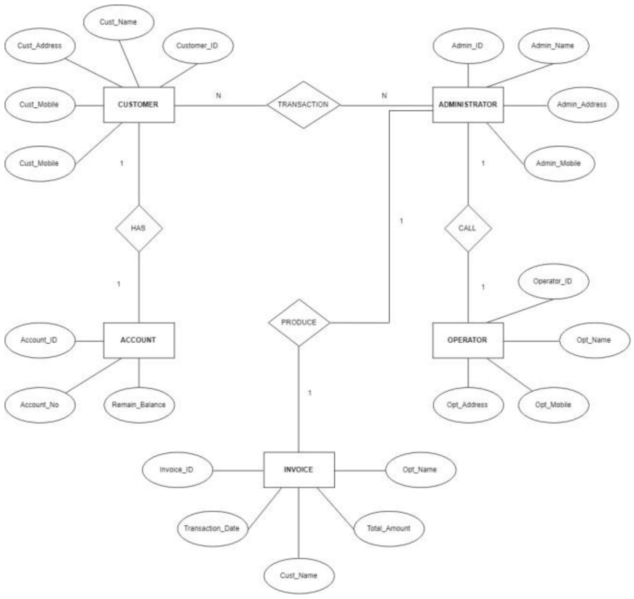


Figure 4. ERD of AllClean Application

ISBN: 978-602-53420-4-2

Table 1. Entities and Attributes on Allclean Application

Entities	Attributes	Remarks
Customer	Customer_ID	Customer ID Number
	Cust_Name	Customer's Name
	Cust_Address	Customer Address
	Cust_Mobile	Customer Mobile Phone Number
	Cust_Email	Customer Email Address
	Account_ID	Customer Account ID
Transaction	Transaction_No	Transaction Number
	Customer_ID	Customer ID Number
	Admin_ID	Admin's Name
Administrator	Admin_ID	Admin's Name
	Admin_ Name	Admin Address
	Admin_ Address	Admin ID Number
	Admin_Mobile	Admin Mobile Phone Number
	Operator_ID	Operator ID Number
	Invoice_ID	Invoice Number
Operator	Operator_ID	Operator ID Number
	Operator_ Name	Operator's Name
	Operator _Mobile	Operator Mobile Phone Number
	Operator _Address	Operator Address
Account	Account_ID	Customer Account ID
	Account_No	Bank Account Number
	Remain_Balance	Costumer Remaining Balance
Invoice	Invoice_ID	Invoice Number
	Transaction_Date	Transaction Date
	Cust_Name	Customer's Name
	Operator_ Name	Operator's Name
	Total	Total Invoice

Concept and Application Design

Figure 5 shows the information used to build the AllClean application model.

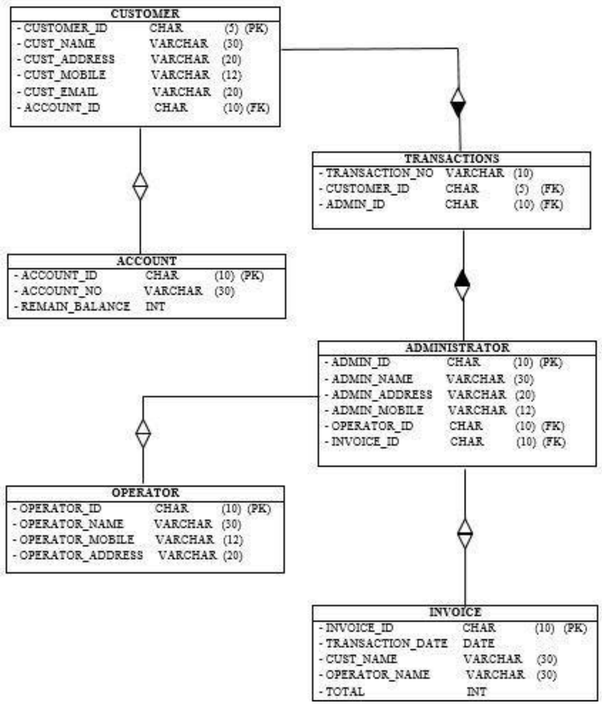


Figure 5. AllClean App Conceptual Database

ISBN: 978-602-53420-4-2

User Interface (UI) Design

Next steps were designing the User Interface (UI) that aiming for a simple and efficient application. When the interface is properly designed, it is comprehensible, predictable, and controllable; users feel competent, satisfied, and accountable for their actions. Figure 6 shows the AllClean Admin form. It encloses Admin User name that needs to be inputted, along with its password, enable them to login into the system.

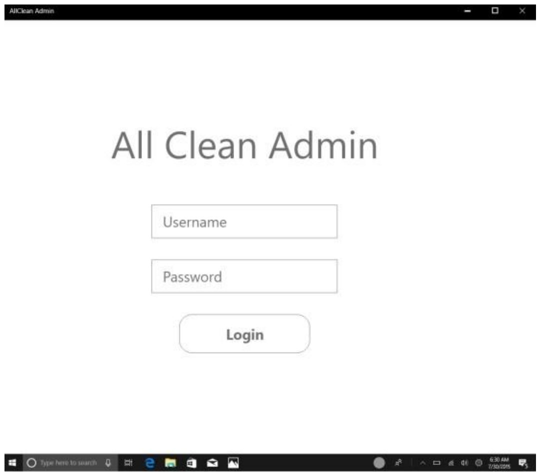


Figure 6. Admin Login Interface

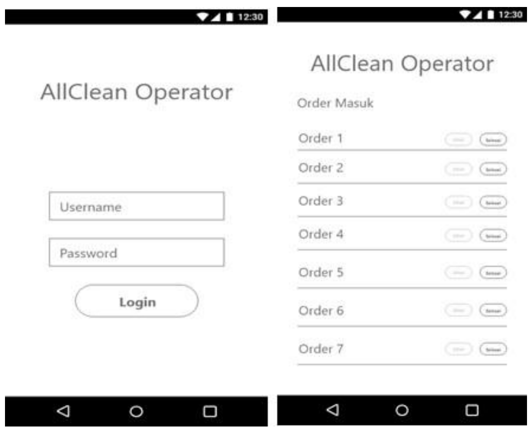


Figure 7. Interface on Android Devices

Meanwhile, the interface on Android devices, will appear as AllClean Operator form that is also requiring User name and password that needs to be inputted, allowing them to login into the system. See Figure 7. Figure 8 to 11 are user interface on Android devices. Users have to register and input their details, and then they can proceed with any service request, including total calculation of payment that needs to be settled for the service.

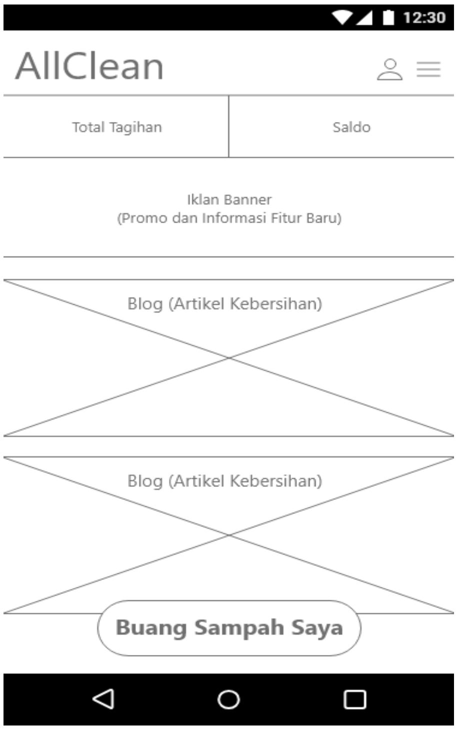


Figure 8. *Customer* Homepage

Figure 9. *Order* Form

ISBN: 978-602-53420-4-2

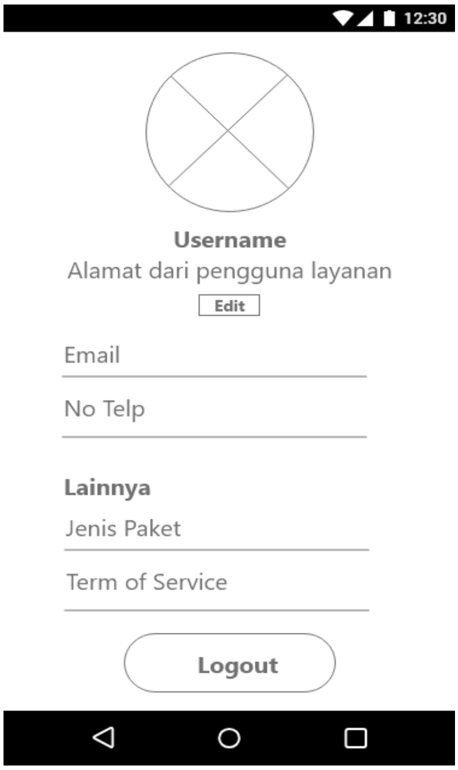


Figure 10. User Profile

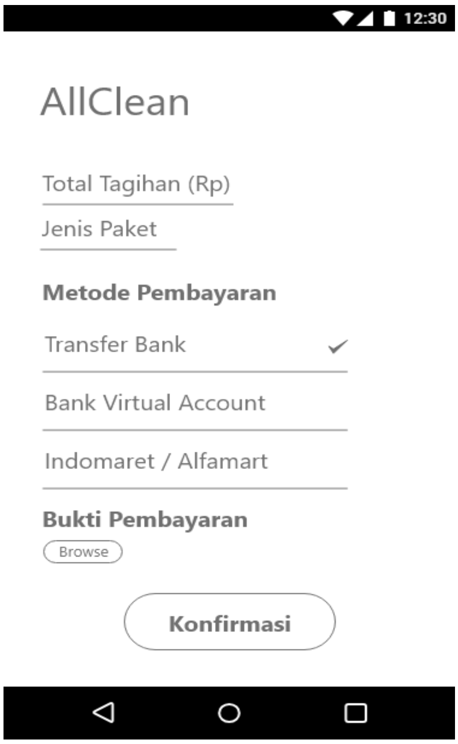


Figure 11. *Payment* Form

ISBN: 978-602-53420-4-2

CONCLUSION

Creating an effective technology, mediated by a prototype approach, in which all process was carried out through repeated interaction and continuous improvement until it complies with the requirements of the user, ensuring its high capability.

AllClean Application aims to help people manage their home/industry waste by managing their own waste pickup service, avoiding waste accumulation. AllClean Application can reach all levels of social order to help everyone creates a clean environment and maintain public health. People can also join and be a partner of. It is indirectly offered job opportunities and help the community.

Academic empowerment can be regarded as the greatest help in waste management, given its expertise and also its responsibility in the community. Further study needed with more data and a wider scope to expand the impact.

REFERENCES

[1] Dahlén, L. and Lagerkvist, A., 2010. Pay as you throw: strengths and weaknesses of weight-based billing in household waste collection systems in Sweden. *Waste management*, *30*(1), pp.23-31.

[2] Djeddar, A., Bendjenna, H., Amirat, A. and Alwan, A.A., 2015. Developing Context-aware Mobile Applications Using Composition Process based-on heterogeneous software entities. *Journal of Advanced Computer Science and Technology Research*, *5*(3), pp.93-103.

[3] Gallardo, A., Bovea, M.D., Colomer, F.J. and Prades, M., 2012. Analysis of collection systems for sorted household waste in Spain. *Waste Management*, *32*(9), pp.1623-1633.

[4] Mulasari, S.A., Husodo, A.H. and Muhadjir, N., 2016. Analisis situasi permasalahan sampah kota Yogyakarta dan kebijakan penanggulangannya. *KEMAS: Jurnal Kesehatan Masyarakat*, *11*(2), pp.259-269.

[5] Sari, N. and Mulasari, S.A., 2017. Pengetahuan, sikap dan pendidikan dengan perilaku pengelolaan sampah di Kelurahan Bener Kecamatan Tegalrejo Yogyakarta. *Medika Respati*, *12*(2).

[6] Badan Pusat Statistik (2018). Statistik Indonesia 2018. Statistical Yearbook of Indonesia 2018. Jakarta: BPS-Statistics Indonesia.

[7] FORLAP DIKTI, 2018. Grafik Jumlah Perguruan Tinggi. Accessed February 25, 2019. https://forlap.ristekdikti.go.id/perguruantinggi/homegraphpt.

[8] Lee, S. and Paik, H.S., 2011. Korean household waste management and recycling behavior. *Building and Environment*, *46*(5), pp.1159-1166.

[9] Wibawa, S., 2017. Tridharma Perguruan Tinggi (Pendidikan Dan Pengabdian Kepada Masyarakat). *Disampaikan dalam Rapat Perencanaan Pengawasan Proses Bisnis Perguruan Tinggi Negeri. Yogyakarta*, *29*, pp.01-15.

[10] Putra, A. and Husrin, S., 2017. Water Quality of Post Contamination of Marine Debris in the Kuta Beach of Bali. *Jurnal Ilmu dan Teknologi Kelautan Tropis*, *9*(1), pp.57-65.

[11] R.O.L.E. Foundation (2018). Zero Waste to Oceans Conference. Accessed August 29, 2018. http://rolefoundation.org/zero-waste-to-oceans-conference-2018/.

[12] Mulyani, S., 2017. *Metode Analisis dan Perancangan Sistem*. Abdi Sistematika.

[13] Ramon, A. and Afriyanto, A., 2017. Karakteristik Penanganan Sampah Rumah Tangga di Kota Bengkulu. *Jurnal Kesehatan Masyarakat Andalas*, *10*(1), pp.24-31.

ISBN: 978-602-53420-4-2

INDIVIDUAL AND CULTURAL DIFFERENCES IN SHAPING THE INTERACTION BETWEEN GERMAN AND INDONESIAN EXCHANGE STUDENTS

Anita Bogar[1], Ni Luh Christine Prawitha Sari Suyasa[2*], Putu Chris Susanto[3], Putu Chrisma Dewi[4]
[1]Heilbronn University of Applied Sciences; [2,3,4]Universitas Dhyana Pura
*christine.suyasa@undhirabali.ac.id

ABSTRACT

This study aims to better understand the dynamics of short-term student exchange as a form of educational tourism. The case study used in this study is the exchange program between a German Junior high school in Brunsbüttel and the Indonesian counterpart in SMPK 2 Harapan Bali. It focuses on the individual and cultural differences between students, and subsequently their behavior and attitude. It uses the qualitative method to analyze the cross-cultural exchanges already happening throughout and after trip from the German students to visit their Indonesian counterparts. It looks into the preparedness of the German students coming to visit Indonesia, and vice versa. It is interested in analyzing the international interaction through foreign exchange, to find the barriers in communication, interaction and understanding for each other. The study uses guided interview in the form of reflection with the German students after the exchange program in Indonesia.

Keywords*: student exchange, educational tourism, German students, Indonesian students, cultural differences*

INTRODUCTION

Student mobility through an exchange programs help creating awareness of the Internationalization in education system. Through student exchange, each student will be benefited not only credit transfer/point, but also cultural, language, specific need in academic achievement, experiences, and the most important is having extended networking with other students from other country.

Indonesia is not one of the 15 most popular countries for German exchange students [1] and according to the UNESCO Institute of Statistics, Indonesia remains at the lower bottom of the destination countries for German students and Germany remains at the lower bottom of the most popular destination countries for Indonesian students [2]. Even though Germany or Indonesian considered as lower bottom of the destination countries, SMPK 2 Harapan and High School in Brunsbuttel try to develop the mutual cooperation at each other, expecting that German-Indonesian partnership will grow, to get closer, to understand each other better and to improve communication.

The student exchange between SMPK 2 Harapan that is located in Banjar Untal-Untal, Dalung is having academic cooperation with High School in Brunsbuttel, North Germany has been established since 2016. The exchange started by teacher visits in 2016, then it shown the needs to share the opportunities to junior high school's students. The idea was confirmed and in 2019, the first project of sending students from each school has put into a reality.

The previous research in the paper named Expectations and Anxieties Relating to Short-Term Edutourism Exchange Program: Case Study of Indonesian-German Students Exchange was presented during ICOSI (International Conference on Sustainable Innovation) found that the expectations of students, parents and teachers can be clustered into personal development, learning about the language and culture as well as the enjoyment of the trip [3]. As for anxieties, major concerns were the ability to cope with the language and culture, problems in everyday life as well as personal health. In between the groups, differences regarding the importance of some expectations and anxieties were observed. Additionally, the groups' international experience played an important role relating to their perception and had an influence on their expectations and anxieties. Therefore, this research aims to find the individual and cultural differences from both different nationalities students in shaping the interaction. This research was conducted during the visit of German students to SMPK 2 Harapan.

By knowing the individual and cultural differences of each student will ease to prepare students for the cultural differences before their arrival to keep the cultural shocks as low as possible as well as the subsequently behavior and attitude that match with country visited.

METHODS

To identify the impression of the other cultures and the differences, the research was conducted through mix method of qualitative and quantitative. Where the questionnaire was spread for 8 students from Indonesia, 8 students from Germany, and two teachers, each from Germany and Indonesia. The questionnaire data was collected to identify what the first impressions were like and identified the cultural differences. Then the cultural differences later were used to form the team building games. Teambuilding games was designed and implemented to increase student's ability working together and make each of them felt connected, released the tension, drop fears, make each of student more open.

FINDINGS AND DISCUSSIONS

One of the bigger challenges of cross-cultural psychology and communications, there are any things could be influenced on people's behaviors and the ability to adapt living abroad. There is also awareness that certain behaviour are just easier to adapt to a new culture than others, it depends on how much people are connected to values.

There are five aspects that is observed and discussed through the activities, such as: a) Communication; b) Power distance; c) Group Orientation; d) Religion/believes; e) Optimism; f) Time; g) Food.

A. Communication.

People around the world are having their own characteristic in communicating to others [4]. The scales described by Erin Meyer include on how people communicating through cross cultural. There are two scale of communications: a) Low context, means that good communication is precise, simple, and clear. Messages are put into action and understood at how they implicate on something. On the other side, another scale of communication is b) High-context, means good communication is wordy, pay attention to the voice intonations, and there are layered messages that need to be interpreted well. Messages are both spoken and must be understood between the lines. It shown on the figure below:

Figure 1. Low Context vs High Context
Source : The book of "The Culture Map" by Erin Meyer (2014)

ISBN: 978-602-53420-4-2

In this case, German are having communication culture of Low-context and Indonesian are very well-known of being High-context. Due to different communication culture, therefore, German students must be given information, and schedule as detail as possible and must be written as clear as possible. German students need to know the whole agenda in order to prepare themselves better. Where Indonesian student, written information is not required as communication tools, as long as they are told on what to do and all the schedules that is going to happened.

B. Power Distance
Power distance is the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. How the leading style and how the power are distributed also mentioned below [4]:

Figure 2. Egalitarian vs Hierarchical
Source : The book of "The Culture Map" by Erin Meyer (2014)

German people know their rights and are willing to fight for them. Moreover, the have a direct communication and control is disliked. German is called more mixed between Egalitarian and Hierarchical, where egalitarian is the ideal distance between superior and subordinates is low. The organization communication is rather flat however people respect on the structural. On the other hand, Indonesia in theory has a higher power distance, is more dependent on hierarchy and power is more centralized. Indonesia is using hierarchical system where the ideal distance between superior and subordinate is high, where the status is rather important and the organizational structure is multilayered and fixed. This can also be seen at school. While the German students see teachers more and more on equal levels and can also question what the teacher thought them, the Indonesian students in general show more respect and would unlikely question what the teacher is teaching them. How they see gender: According to traditions and religion in parts of the country - in most cases men have a much stronger role, which can however vary depending on the social class.

C. Group Orientation
When having a look on Hofstede´sfive cultural dimensions, Indonesia with a lower score of 14 belongs to the collectivism and Germany to individualism concept [5]. Indonesians have a strong group identification, whether it is family, school, year of study, religious affiliation or ethnic origin, this was also recognizable during the implementation part one- the team building games. The group often provides helpfulness and protection, as one can delegate responsibility to the group. In Collectivist societies people belong to 'in groups' that take care of them in exchange for loyalty. German society, with a score of 67 is an Individualist one, which is about interdependence a society have among its members. It has to do with how people see themselves. Is it defined in terms of "I" or "We". In Individualist societies people are supposed to look after themselves and their direct family only. Small families focus on the parent-children relationship rather than aunts and cousins, religious groups [5].

D. Religion/Believes

The belief in an all-powerful god is part of the official state philosophy in Indonesia. Atheism is therefore not allowed. Moreover, all major religions are also represented in Indonesia. 6 religions are officially recognized: Islam, Buddhism, Hinduism, Catholicism, Protestantism and Confucianism [6]. As a result, Religion is perhaps the most important thing for an Indonesian. You can observe that many Indonesians are very religious. they pray several times a day, visit the temples often and respect the holidays [7].

In Germany, however, atheism is not uncommon. The " Research Group on World Views in Germany " has found that in 2017, 37% of Germans did not belong to any religion and are therefore free of religious convictions. Furthermore, this research group also confirmed that church visits are becoming increasingly rare. According to statistics, in 2016, 16.8% never went to church, 43.2% rarely and 27.6% more times a year. Only 5% go to church more times a week [8].

E. Optimism

The Indonesians live more at the current situation, believe in solving problems, where the German student are more concern about what could happen. Indonesian are very optimistic because the impact of living around family shows that the help is always given in time of need.

F. Time

German people are seen as very punctual compared to the Indonesian people. But it was very interesting to see that the German students themselves would not rank themselves as more punctual than the Indonesian students. From 8 German students, 28,6% said that they are not more punctual than Indonesian students. It shown in Figure 3

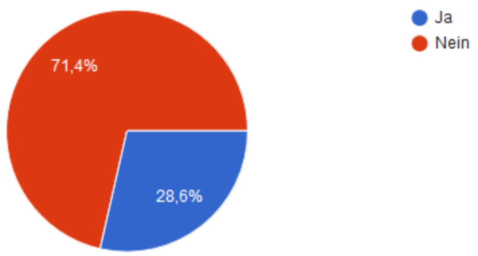


Figure 3: Do you think you are more punctual than your Indonesian exchange student?

Even though the time principal in Indonesia is getting better, in another side, Indonesian students sees punctuality is translated as requirement than a commitment. Indonesian students believed that time is not the most important as long as the goal is achieved, everyone doing their job is healthy and happy. However, German students sees schedules time is well respected and punctuality is more putting into commitment.

G. Food

In some sources eating is called Indonesian "volkssport" [9]. Indonesian people are used to eat spicy and eat a lot of rice. A meal without rice is often considered as – no meal. Indonesian food presents the harmony of aspect of life, alsmost every flavor is mixed (salty, spicy, sour, and sweet). Indonesian eat lots of food.

Whereas Germans don't used to eat spicy. Often the Germany which eat not spicy food in Indonesia still have the feeling that it is spicy. German students eat lots of pork and simple food such as breads and consume lots of dairy

ISBN: 978-602-53420-4-2

product. Also the portion of the food is small compared to Indonesian. Seven out of eight students told that the families cooked not spicy food for the German students. The pie chart shows that parents were prepared and informed about important cultural differences and willing to make the say for the German students as good as possible.

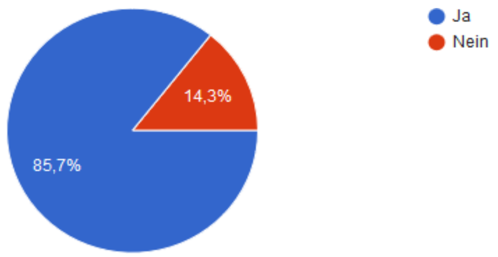


Figure 4: Had your host family extra cooked not spicy for you?

CONCLUSION

Both schools keep giving pre-departure preparation and always there are topics could be covered more. Based on the team building games and the interview as well as the questionnaire, there are suggestions to be made during the program as follows: a) To avoid misunderstanding in the communication process, the written details on all the programs need to be implemented. With the cultural of low context and high context, both cultural differences will be facilitated with well information; b) To balance the power distance, the team building games need to be implemented more. It also could be developed through outside school activities, like cooking, watching movie, and spending with the host family; c) Group orientation is needed prior to establish an exchange program. Due to different cultural background where individualism and collectivism exists, Group orientation is needed to be implemented in order to achieve the enjoyment of the study abroad activities; d) Required to have skype, Whatssap video communication before coming to destination country, to introduce each other, culture, and habits. Therefore, students have the connecting feeling even before they see each other in person.

REFERENCES

[1] Weltweiser-Studie 2019: Weltweiser- Studie Schüleraustausch- High school - Auslandsjahr 2019, https://weltweiser.de/ratgeber-auslandsaufenthalte/schueleraustausch - studie/, p.10-11, verified on 16.04.2019.

[2] UNESCO Institute of Statistics (2019): *Global Flow of Tertiary-Level Students*. Retrieved from http://uis.unesco.org/en/uis-student-flow, verified on 07.04.2019

[3] Suyasa C., Weizenecker D., & Susanto PC. Expectations and Anxieties Relating to Short-Term Edutourism Exchange Program: Case Study of Indonesian-German Students Exchange. Proceedings of the International Conference on Sustainable Innovation. 2019.

[4] Meyer, E. 2014. The Culture map. Public Affairs

[5] Facts and Details, 2019: Country comparison, https://www.hofstede-insights.com/country- comparison/germany,indonesia/, verified on 13.05.2019

[6] Fuhrmann, Klaus. Dr.2019: Das Länder- Informations-Portal, Indonesien, https://www.liportal.de/indonesien/gesell schaft/, verified on 20.04.2019

[7] LIPortal (2019): Das Länder- Informations-Portal. Retrieved from https://www.liportal.de/indonesien/gesell schaft/, verified on 20.03.2019

ISBN: 978-602-53420-4-2

[8] Statista, 2019: Business Data Platform, Survey opinion of the German on equal rights for men and women, https://de.statista.com/statistik/daten/studie/924635/umfrage/meinung-der- deutschen-zur-gleichberechtigung-von-maennern-und-frauen/, verified on 02.05.2019
[9] David, Bettina, 2019: KulturSchock Indonesien: https://www.reise-know-how.de/de/produkte/kulturschock/kulturs chock-indonesien-download-pdf-43842, verified on 04.05.2019
[10] Liu, Xuezhi; Li, Chun (2016): *International Student Mobility Trends between Developed and Developing Countries*, p. 16–35

BEHAVIOR LEVEL OF KNOWLEDGE, ATTITUDE, AND ACTION OF CONSUMERS IN PESTICIDE RESIDUES ON VEGETABLES AND FRUITS FOR SALE IN BADUNG MARKET DENPASAR IN 2019

Nyoman Sudarma[1], Ni Luh Nova Dilisca DP[2], Diah Prihatiningsih[3]

[1,2,3] Sekolah Tinggi Ilmu Kesehatan Wira Medika Bali

sudarma842@gmail.com

ABSTRACT

Badung Market is the biggest market located in Denpasar, Bali. The market is a traditional trading center that sells food, clothing, and shelter needs. The need for vegetables and fruits can also be obtained at the market. Due to the increasing need for them, farmers use pesticides to increase agricultural yield. But the use of pesticides on vegetables and fruist is suspected to have been excessive both in terms of type, composition, dose, time, and interval. Pesticide residues are certain substances contained in agricultural products including vegetables and fruits. Pesticide residues have an indirect effect on consumers, but in the long run they can cause health problems, including neurological disorders and the metabolism of the cholinesterase enzyme. The purpose of this study was to determine the level of consumer behavior towards residues on vegetables and fruits based on the level of knowledge, attitudes, and actions. This research was a descriptive survey research. The population of this study was all the consumers who bought vegetables and fruits with a sample of 100 respondents. Sampling was carried out accidentally by taking respondents who were buying vegetables and fruits then interviews and questionnaires were conducted. Based on the results of the study, it was found out that the level of consumer behavior in vegetables and fruits that contained pesticides with respect to knowledge was moderate (55%), attitude (moderate 67%), and action (moderate 73%)

***Keywords**: pesticide residues, behavior level, vegetables and fruits*

INTRODUCTION

Badung Market is located in the village of Dauh PuriKangin and is the largest traditional market in Denpasar, Bali Province. The market is a gathering place for thousands of traders who sell various needs such as food, clothing, and including vegetables and fruits. Vegetables and fruits sold in Badung market are imported from plantations or agriculture in Bali or outside Bali so that even small traders can buy vegetables and fruit and then resell them in other traditional markets. Vegetables and fruits that come from plantations or agriculture are not necessarily free from the effects of the dangers of pesticides. The traders get vegetables and fruit to be sold, directly from farmers who sell their garden crops. Vegetables and fruit sold by traders in Badung market have not received special treatment. The traders do not clean vegetables before being sold to consumers. From this, it is feared that there will still be pesticide residues attached to the vegetables, making them unsafe for consumption [5].

Pesticides are chemicals that are used to control the development / growth of pests, diseases, and weeds. Without the use of pesticides there will be a decrease in agricultural yields. Extensive use of pesticides at every stage of the plant can cause a lotpesticide residues left behind in agricultural products and in the agricultural environment. Pesticide residues found in agricultural products have a bad impact on human health.

Several studies have been conducted on the analysis of pesticide residues on vegetables and fruit that are sold in traditional and modern markets. In 2009 a pesticide residue content study was carried out on cabbage, tomatoes, and carrots in Malang, East

Java. Samples were taken randomly from several supermarkets and then analyzed in the laboratory with Gas Chromatography tools. The results showed that pesticide residues with active ingredients endosulfan found in cabbage with levels of 7.4 ppb. In addition, pesticide residues were found with active ingredients chlorpinos, meditation, malation, and carbanil. In the carrot sample, the highest active content of endosulfan was found to be 10.6 ppb [7].

In 2013 a research was carried out on the identification of organophosphate pesticide residues in potato vegetables in Makassar's Lottemart supermarket and Makassar Eggplant Market. Laboratory test results showed pesticide residues of <10 mg / kg. In 2014, pesticide residue analysis was also carried out on fruit tomatoes and vegetable tomatoes at the supermarket in Makassar. The results showed that pesticide residues were found with the active ingredient profenofos in vegetable tomatoes [6].

Consumers of vegetables and fruits are very susceptible to the influence of the presence of pesticide residues in the vegetables and fruits consumed. The risk for consumers is poisoning of pesticide residues found in agricultural products. Risks for consumers can be in the form of direct poisoning by consuming agricultural products contaminated with pesticides or through the food chain. Although it is not impossible for consumers to suffer acute poisoning, but the risk of consumers is generally in the form of chronic poisoning, not immediately felt, and in the long term it may cause health problems [2].

Along with the development of knowledge and technology and public awareness of health, now some people are more interested in consuming vegetables that are truly healthy, not only looking at their outward appearance, but they place more emphasis on the condition in vegetables. One such consumer choice is vegetables that are free of pesticide residues. There are several methods for removing pesticide residues, but many do not know that. The level of behavior such as knowledge and attitudes of consumers of vegetables and fruits greatly affect their health in order to avoid the dangers of residues in vegetables and fruit consumed.

METHODS

This research was conducted through descriptive survey. The location of the study was at Badung Market in Denpasar, a section selling vegetables and fruits. The population of this research was all consumers of vegetables and fruits with a total sample of 100 people. The sampling technique with accidental sampling was done by conducting interviews and filling out questionnaires for consumers who were shopping.

FINDINGS AND DISCUSSIONS

Characteristics and level of behavior of respondents were taken as many as 100 respondents (n = 100) to fill in the questionnaires that weredistributed. The following Table (Table 2) depicts the distribution of respondents by age and level of education:

Table 1. Distribution of Age and Education Level of Vegetable and Fruit Consumer Respondents

Age (year)	N	Percentage (%)
16-25	8	8
26-35	11	11
36-45	40	40
46-55	17	17
56-65	24	24
Education Level		
Bachelor	6	6
Senior High School	60	60
Junior High School	25	25
Diploma 3	4	4
Diploma 2	2	2
Diploma 1	3	3

ISBN: 978-602-53420-4-2

It can be seen that the majority of vegetable and fruit consumer respondentsaged 36-45 years (40%). For the education level of respondents, most fruit and vegetable consumers have a high school education level with a percentage of 60%. The level of consumer behavior of vegetables and fruits can be seen in the following Table 2.

Table 2. Distribution of the Level of Consumer Behavior Based on Knowledge, Attitudes, and Actions

Behaviour		**Total**
Knowledge	**N**	**Percentage (%)**
Good	34	34
Fair	55	55
Poor	11	11
Attitude		
Good	33	33
Fair	67	67
Attitude		
Good	27	27
Fair	73	73

The consumers of vegetables and fruits mostly had moderate behavior level with a percentage of 55%. Most of the attitude behavior (67%)was moderate, and the behavior of the actions had a medium category with a large percentage of 73%.

The level of consumer knowledge was mostly moderate (55%). It is seen in consumers (60%) that did not know that good vegetables rotted fast. Vegetables and fruits that are given pesticides will have a longer shelf life and will not rot easily. Consumers also largely answered incorrectly about the effectiveness of removing pesticide residues by running water. Washing lettuce and mustard greens with running water can remove pesticide residues by 60-70% [10,1]. Decreasing levels of pesticide residues with running water is possible because pesticides are easily absorbed by water. Usually this type of pesticide is organophosphate pesticides which have water-soluble properties.

67% of the consumers had a moderate level of attitude behavior. It can be seen that 54% of consumers disagree if all vegetables and fruit contain insect and grass poisons. Most consumers of vegetables and fruit had a moderate level of action that is equal to 73%. It is seen that only 15% of them washed vegetables and fruit with certain antiseptic liquids. Washing vegetables and fruits with certain antiseptic / detergent liquids can reduce pesticide residues in chilies by 16.59% [9]. Washing lettuce using antiseptic liquid / detergent can reduce pesticide residues by 70.1%. Detergents can reduce pesticide residues because they have surfactants. Surfactants are chemical compounds whose molecules have two poles, each of which is hydrophilic and lipophilic. In the washing process using water, the hydrophilic part will interact with water, while the lipophilic part will interact with lipophilic pesticides. Thus, the surfactant acts as a bridge and by itself will increase the effectiveness of washing pesticides using water. Usually the types of pesticides that can be lost with surfactants are organochlorines such as Aldrin, Lindan, Heptachlor, Hexachlorophene, and others [4].

As many as 26% of consumers often cook vegetables until they were cooked, but with the condition such that the container was not closed. Factors that influence the reduction of pesticide residues include (1) evaporation, (2) mechanical and physical treatment, and (3) due to washing with detergent. If cooking vegetables with a container being not closed, then the possibility of pesticides being evaporated becomes greater and the evaporated pesticides may be brought back to the vegetables [3].

If consumers often consume vegetables and fruits that contain pesticide residues, this is very dangerous for their health. The toxicity of pesticide residues can be acute or chronic through the gastrointestinal. Pesticides can have neurotoxic effects through the inhibition of the enzyme *acetylchholesteresterase* in nerve synapses and myoneural junctions that are reversible. Clinical symptoms of pesticide poisoning are a cholinergic reaction. The severity depends on the amount of pesticides consumed with clinical symptoms such as dizziness, muscle weakness, diarrhea, sweating, nausea, vomiting, no response to pupils, blurred vision, shortness of breath and convulsions [8].

CONCLUSION

The results showed that the majority of vegetable and fruit consumers were in the category of having moderate knowledge (55%), moderate attitude (67%), and moderate action (27 %).

REFERENCES

[1] Alen, Y, Zulhidayanti, Netty,S. 2015.' Pemeriksaan Residu Pestisida Profenofos Pada Selada (Lactuca sativa L) Dengan Metode Kromatografi Gas'. Jurnal Sains Farmasi & Klinis, 1(2), pp. 140-149.
[2] Djojosumarto,P. 2004. 'Teknik Aplikasi Pestisida Pertanian. Kanisius. Yogyakarta.
[3] Fitriadi,B.A, Ayutia,C.P. 2016. 'Methods of Pesticide Residue Reduction on Agriculture Product'. Jurnal Rekayasa Kimia dan Lingkungan, 11(2), pp.61-71.
[4] Lukitaningsih,E, Sudarmanto,B.S.A, Noegrohati,S. 2002. ' Uji Efektifitas Daya Bersih Beberapa Sediaan Surfaktan Terhadap Residu Pestisida Pada Buah Apel Segar. Majalah Farmasi Indonesia, 13(4), pp. 200-206.
[5] Marbun,L.H, Nurmani,Taufik,A. 2015. 'Analisis Residu Pestisida Organofosfat Pada Sayuran Serta Tingkat Perilaku Konsumen Terhadap Sayuran Yang Beredar Di Pasar Tradisional Pringgan Kecamatan Medan Baru Tahun 2015' Karya Tulis Ilmiah. Departemen Kesehatan Lingkungan. Universitas Medan. Medan.
[6] Marsun,I.F. 204. 'Studi Kandungan Residu Pestisida Pada Tomat Buah Dan Tomat Sayur Pada Pasar Swalayan Di Kota Makasar'. Skripsi. Program Studi Kesehatan Masyarakat. Universitas Islam Negeri Allaudin. Makasar.
[7] Munarso,S.J, Miskiyah, Wisnu,B. 2009. 'Studi Kandungan Residu Pestisida Pada Kubis, Tomat, Dan Wortel Di Malang Dan Cianjur'. Buletin Teknologi Pasca Panen Pertanian Badan Litbang Pertanian, 5(1).
[8] Raini,M. 2009. 'Toksikologi Pestisida Dan Penanganan Akibat Keracunan Pestisida'. Media Litbang Kesehatan, 17(3).
[9] Sembiring,S. 2011. 'Pengaruh Pencucian Terhadap Residu Pestisida Profenofos Pada Cabai Merah'. Skripsi. Fakultas Farmasi. Universitas Sumatra Utara. Medan
[10] Zaenab, Nita,N.Y, Alifia,C.B. 2016. Identifikasi Residu Pestisida Chlorpyrifos Dalam Sayuran Sawi Hijau (*Brassica Rapa Var.Parachinensis L*) Di Pasar Terong Kota Makasar'. Media Kesehatan Politeknik Kesehatan Makasar, 11(2), pp. 52-59.

ISBN: 978-602-53420-4-2

THE EFFECT OF PROCEDURAL JUSTICE ON SERVICE-ORIENTED ORGANIZATIONAL CITIZENSHIP BEHAVIOR: TESTING A MULTILEVEL AND CROSS-LEVEL MODEL

Heru Kristanto[1]
[1]Duta Wacana Christian University
herukris@staff.ukdw.ac.id

ABSTRACT

This study examines the effect of perceived procedural justice and procedural justice climate on service-oriented organizational citizenship behavior (S-O OCB). Perceived procedural justice is all members of a group who are treated individually with procedural justice, testing its influence on S-O OCB through multi-level. The procedural justice climate is members who are given procedural justice treatment as a group, testing its effect on S-O OCB through cross-level. A study of 425 front-line employees from 56 hotels in the Special Region of Yogyakarta Province showed that the procedural justice climate affected S-O OCB positively and significantly by controlling perceived procedural justice. Implications of the findings are discussed.

Keywords: *service-oriented organizational citizenship behavior, climate of procedural justice, perceived procedural justice*

INTRODUCTION

Smith, Organ, and Near (1983) published the first research article using the term organizational citizenship behavior (OCB). They refer to the opinion of Barnard (1938: 84) about the concern of someone to contribute their efforts to the cooperative system, namely working together to achieve organizational goals. OCB is behavior that contributes to organizational effectiveness and is not explicitly rewarded, such as helping co-workers, promoting organizations outside the workplace, and voluntarily doing extra activities (Organ & Ryan, 1995). The concept of OCB was introduced by Bateman and Organ (1983), then developed and deepened by several researchers such as Moorman (1991), Podsakoff and Mackenzie (1993), Konovsky and Pugh (1994), and Organ and Ryan (1995). The OCB is a type of work behavior that is not considered a job qualification but supports the organization through social and psychological contexts (Blakely et al., 2005).

In various companies, especially service companies, employee contact with customers is a source of differentiation and competitive advantage (Pfeffer, 1994; Bettencourt & Brown, 1997). Company excellence is also based on the opinion that states, customer satisfaction, perceived service quality, and the customer's decision to be loyal to the product are significantly influenced by the attitudes and behaviors of HR representing the organization (Bitner, Jo, Booms, & Tetreault, 1990; Keaveney, 1995; Parasuraman et al., 1990; Bettencourt & Brown, 1997). This shows that the role of HR in maintaining the image and maintaining the survival of the organization is very much needed, therefore employee care is needed as a form of loyalty both to the organization and customers.

Service orientation citizenship behavior (S-O OCB) is a form of OCB development that is tailored to the service sector (Bettencourt & Brown, 1997; Bettencourt et al., 2001). Service-oriented organizational behavior is defined as loyal behavior towards organizations that actively participate in various activities and offer perfect services (Bettencourt et al., 2001). Based on this definition, S-O OCB is a three-dimensional which directs employees to be "loyal" to the organization, "actively participates" in various activities, and offers perfect "service" (Bettencourt et al., 2001; Sun, Aryee, &

Law, 2007; Tang & Tang, 2012; Wang, 2009a). Loyalty is the behavior of acting as a customer advisor not only to products and services but also to its image. Participation in the behavior of customer contact employees in taking initiatives individually, especially in communication, improving service through organizations, coworkers, and himself - is the basis of a company's ability to meet the changing needs of its customers. Meanwhile, service delivery is a behavior that exceeds the normal requirements expected in activities around the service to customers.

This study refers to the social exchange theory introduced by Blau (1964) which explains that a person expects reciprocity from another party. This is shown by the relationship between organizational justice and OCB which leads to the attention of the reciprocal relationship between subordinates and supervisors in response to benefits offered by supervisors (Deluga, 1994; Wayne & Green, 1993). The purpose of this study is to explore the impact of cross-level procedural justice on S-O OCB which can benefit from a correct understanding of how S-O OCB is influenced by procedural justice both at the individual and organizational levels.

METHODS

Procedural Justice and S-O OCB at Individual Level

The social exchange theory was introduced by Blau (1964) who explained that one expects reciprocity from the other party. The basic concept of social exchange theory is strengthening compensation. When one party (supervisor) provides benefits for the other party (subordinate), the subordinate is obliged to provide compensation or reciprocity. As a follow-up to social exchange theory, Moorman (1991) states that the perception of justice influences the decision of employees to act or conduct OCB.

Cohen-Charash and Spector (2001) state that among the various outcomes of organizational justice, OCB is one and constitutes most of the study of organizational justice correlations. Besides, organizational justice is considered the most robust predictor of OCB (Fassina, Jones, & Uggerslev, 2008; Organ & Ryan, 1995). The Organ Statement (1988) shows that when employees feel treated unfairly, they reciprocate this treatment through a reduction in citizenship behavior or extra-roles.

At least two studies on the relationship between organizational justice and S-O OCB (Bettencourt & Brown, 1997; Bettencourt, Brown, & MacKenzie, 2005). The results of Bettencourt and Brown's (1997) research show that justice in job supervision, wages, promotion rules, and administrative supervisors are key predictors of employee direct customer service prosocial service behavior. Bettencourt et al. (2005) found on 281 frontline employees of a national bank branch office in America showed that procedural justice indirectly affected employee behavior beyond customer-oriented boundaries. Based on the description above, the hypothesis can be taken as follows:

Hypothesis 1: Perceived procedural justice influences S-O OCB positively.

Procedural Justice Climate and S-O OCB at Group Level

The procedural justice climate is defined as group-level cognition about how a working group as a whole is treated by the organization, especially concerning organizational procedures or policies (Naumann & Bennet, 2000). Social justice demands will force members to discuss and interpret the treatment of the organization at all times (Degoey, 2000), and the impact of the social information process will increase agreement on justice from the collective experience of members (Yang, Mossholder, & Peng, 2007).

The procedural justice climate is an integration of the concepts of justice and organizational climate. To explain the existence of an organizational climate of justice, this research will integrate social information processing theory (Salancik & Pfeffer, 1978), interaction theory and social construction (Colquitt, 2001; Kulik & Ambrose, 1992), and ASA perspective (Schneider, 1987). Following social information processing theory, individuals use information from the work environment immediately to interpret

ISBN: 978-602-53420-4-2

events, develop appropriate attitudes, and understand expectations regarding behavior and its consequences. When individuals assess the similarity of perceptions with other coworkers about the treatment of supervisors in the application of decision-making procedures, then the same perception makes individuals improve S-O OCB.

The perspective of interaction and social construction explains that perceptions of justice are interactions of individuals with other individuals, sharing information and experiences. At the group level, the consequence of the process is to form consensus and shared perceptions among members in the group. The ASA perspective explains that in work units there is a tendency to form inter-personal homogeneity, so that similarity in terms of demographic characteristics is also related to the similarity of perceptions among individuals. Homogeneity among group members will give rise to an agreement on the perception of a climate of justice.

The relationship between the procedural justice climate and OCB has been developed by several researchers using cross-level analysis. Liao and Rupp (2005) state that the procedural justice climate that focuses on organizations influences OCB. Research by Walumbwa, Wu, and Orwa (2008) also shows the same results, which support a positive relationship between the procedural justice climate and OCB. Yang, Mossholder, and Peng's (2007) research also found that the procedural justice climate (group level) influences organizational commitment and OCB (individual level), higher than the influence of perceptions of procedural justice (individual level) on organizational commitment and OCB (individual level). Finding Yang et al. (2007) following the results of research Mossholder et al. (1998) and Naumann and Bennet (2000) state that the influence of the context of procedural justice at the group level has greater explanatory variance compared to the perception of individual-level procedural justice. Based on this the following hypotheses can be taken:

Hypothesis 2: The procedural justice climate influences S-O OCB positively.

Measurement

This study uses a survey research design with a questionnaire as an instrument. This study uses primary data obtained directly from respondents of 425 employees in direct contact with hotel customers (in this case front-line employees) from 56 hotels in the Special Province of Yogyakarta.

This study uses three variables: perceived procedural justice variables (individual level), procedural justice climate (organizational level) (both derived from 6 questions with 5-point Niehoff and Moorman scale scales (1993), as well as service-oriented organizational citizenship behavior (16) items with 7-point Likert scale from Bettencourt et al., 2001). Cross-level analysis and hypothesis testing using Hierarchical Linear Modeling (HLM).

The purposive sampling method uses selects respondents with certain criteria to fit the research objectives. The criteria used are operational employees who have direct contact with customers who have worked for at least 2 years with the consideration that the employee has been established in dealing with colleagues, supervisors/leaders, and customers. Other criteria are employees working in units with a minimum of 5 members with one supervisor or supervisor.

Table 1. Descriptive Statistics and Correlations

No.	Variable	N	M	SD	1	2	3
1	Perceived Procedural Justice	425	4.059	0.499	-		
2	Service Oriented Organizational Citizenship Behavior	425	5.612	0.734	0.352	-	
3	Procedural Justice Climate	56	4.07	0.201	-	-	-

FINDINGS AND DISCUSSIONS

The validity of the research indicators was carried out using the exploratory factor analysis method with principal component analysis and varimax rotation techniques. The size of the level of validity is expressed by the loading factor score. According to Hair, Black, Babin, Anderson, & Tatham (2006: 779), an indicator is declared valid if it has a loading factor score ≥ 0.5. The reliability test shows that all variables are more than 0.8 and are called good (Sekaran & Bougie, 2016: 290) so that all variables can be used for further analysis.

Table 2. Validity and Reliability Testing

Variable	Number of Items	Valid Items	Reliability
Procedural Justice	6	6	0.811
S-O OCB	16	16	0.925

Before testing hypotheses, a justification of procedural justice aggregation is needed which is individual perception data to become unit-level variables. Two indicators used to justify aggregation are interrater agreement (IRA) and intraclass correlation (ICC). The inter-rater agreement is a measure of consensus or individual opportunity within a work unit indicated by the rwg index. ICC test results to determine the level of variance within and between the front office work units (FO) of each hotel. ICC (1) and ICC (2) values for procedural justice climate are 0.429 and 0.818; rwg = 0.8909. The test results showed exceeding the minimum threshold of the ICC median value (1) which is 0.12 (James, 1982), and the minimum limit of ICC (2) is 0.6 (Glick, 1985), the minimum limit of rwg is 0.7; so that procedural justice variables can be aggregated into group level.

Table 3. Unit Level Testing

Variable	**r_{wg} (mean)**	**r_{wg} (median)**	**ICC(1)**	**ICC(2)**
Procedural Justice	0.8909	0.9094	0.429	0.818

Note: r_{wg} = Interrater Agreement, ICC = Intraclass Correlation Coefficient

The first stage of hypothesis testing is testing the unconstrained (null), dependent variable model. This test is to determine the variance of the dependent variable between hotels (between-group variance) which is a requirement that must be met before cross-level testing. The null model testing was carried out on the variables that became a consequence of the procedural justice climate, namely S-O OCB.

Unconstrained model testing is done by entering the individual-level variables (level 1) as an output variable without the presence of individual-level predictor variables (level 1) or unit level predictors (level 2). The unconstrained model test is a different test with a one-way ANOVA approach that is used to determine differences between groups. Indicators in the unconstrained model test include chi-square (χ2) which is used to determine the significance of the difference in variance between the front office units of each hotel and is equipped with the ICC which is also to know the significance of the difference in variance between the front office units of each hotel.

The unconstrained tests of the S-O OCB model are shown in Table 4. that is a significant chi-square value for S-O OCB (χ2 = 161.90977; p <0.001). These results indicate that there are differences in outcome variables (outcomes) between the front office work units of each hotel, so cross-level hypothesis testing using HLM analysis tools can be done.

ISBN: 978-602-53420-4-2

Table 4. Unconstrained Testing (Null Model)

Variable	Chi-Square (χ^2)	σ^2 and τ	ICC = $\tau / (\tau + \sigma^2)$	Note
Service-Oriented Organizational Citizenship Behavior	161.90977	0.75407 and 0.20341	0.2124	The results of the unconstrained model showed significant chi-square and ICC viz there is a difference in variance between the front office units of each hotel on each dependent variable so that HLM analysis can be continued.

Hypothesis testing shows that the direct effect of perceived procedural justice on S-O OCB is positive (γ = 0.610; SE = 0.197), hypothesis 1 is supported. The influence of cross-level procedural justice climate on S-O OCB was positive (γ = 0.789; SE = 0.257; $p < 0.003$), hypothesis 2 was supported.

Table 5. Hierarchical Linear Modelling Analyses of Outcomes

Variable	S-O OCB	
	γ	**S.E**
Perceived Procedural Justice	0.610*	0.197
Procedural Justice Climate	0.789*	0.257

Note: $*p < 0.003$

Both hypotheses are supported and show that individual and aggregate procedural justice influences S-O OCB positively. This finding shows the influence of procedural justice on various organizational and individual levels of S-O OCB is consistent with the opinion of Salancik and Pfeffer (1978) that employees are influenced by the social context in the surrounding environment (Graso et al., 2014). Individuals who feel justice will reciprocate by behaving citizenship. Likewise, individuals will behave citizenship based on information and agreements about justice obtained from the surrounding environment. The practical implications of this study reaffirm that a social condition can predict S-O OCB employees effectively compared to individual perception.

CONCLUSION

In general, concerning procedural justice, understanding of the context of group work is better than individual understanding. The contribution of this research is to improve S-O OCB employees through the justice approach. The limitation of this study is that it is only carried out in the Special Province of Yogyakarta so that further research can be carried out throughout Indonesia.

REFERENCES

[1] Barnard, C. I. 1938. The functions of the executive. Cambridge, MA: Harvard University Press.
[2] Bateman, T. S., & Organ, D. W. 1983. Job satisfaction and the good soldier: The relationship between affect and employee “citizenship.” Academy of Management Journal, 26: 587-595.
[3] Bettencourt, L. A., & Brown, S.W. 1997. Contact employees: relationships among workplace justice, job satisfaction and prosocial service behaviours. Journal of Retailing, 73(1): 39–61.
[4] Bettencourt, L. A., Brown, S. W., & MacKenzie, S. B. 2005. Customer-oriented boundary-spanning behaviors: Test of a social exchange model of antecedents. Journal of Retailing, 81(2): 141-157.
[5] Bettencourt, L. A., Gwinner, K. P., & Meuter, M. L. 2001. A comparison of attitude,

[6] personality, and knowledge predictors of service-oriented organisational citizenship behaviours. Journal of Applied Psychology, 86(1): 29–41.
[7] Bitner, M.J., Booms B.H. and Tetreault, M.S. 1990). The service encounter: diagnosing favorable and unfavorable incidents. Journal of Marketing, 54: 71-84.
[8] Blakely, G. L., Andrews, M. C., & Moorman, R. H. 2005. The moderating effects of equity sensitivity on the relationship between organizational justice and organizational citizenship behaviors. Journal of Business and Psychology, 20(2): 259-273.
[9] Blau, P. M. 1964. Exchange and power in social life. New York: John Wiley & Sons.
[10] Cohen-Charash, Y., & Spector, P. E. 2001. The role of justice in organizations: A meta analysis. Organizational Behavior and Human Decision Processes, 86: 278–321.
[11] Colquitt, J. A. 2001. On the dimensionality of organizational justice: A construct validation of a measure. Journal of Applied Psychology, 86: 386-400.
[12] Degoey, P. 2000. Contagious justice: Exploring the social construction of justice in organizations. Research in Organizational Behavior, 22, 51–102.
[13] Deluga, R. J. 1994. Supervisor trust building, leader-member exchange and organizational citizenship behavior. Journal of Occupational and Organizational Psychology, 67: 315-32.
[14] Fassina, N. E., Jones, D. A., & Uggerslev, K. L. 2008. Meta-analytic tests of relationships between organizational justice and citizenship behavior: Testing agent-system and shared variance models. Journal of Organizational Behavior, 29: 805-828.
[15] Glick, W. H. (1985). Conceptualizing and measuring organizational and psychological climate: Pitfalls in multilevel research. Academy of Management Review, 10, 601-616.
[16] Graso, M., Jiang, L., Probst, T.M., & Benson, W.L. 2014. Cross-level effects of procedural justice perceptions on faculty trust. Journal of Trust Research, Vol. 4, No. 2, 147–166
[17] Hair, J. F. Jr. Black, W. C., Babin, B. J. Anderson, R. E., & Tatham, R. L. 2006. Multivariate data analysis. 6th ed. New Jersey: Prentice Hall.
[18] James, L. R. 1982. Aggregation bias in estimates of perceptual agreement. Journal of Applied Psychology, 67: 219-229.
[19] Keaveney, S., 1995. Customer switching behaviour in service industries: An exploratory study, Journal of Marketing, 59(2): 71-82.
[20] Konovsky, M. A., & Pugh, S. D. 1994. Citizenship behavior and social exchange. Academy of Management Journal, 37: 656–669.
[21] Kulik, C. T., & Ambrose, M. L. 1992. Personal and situational determinants of referent choice. Academy ot Management Review, 17(2): 212-237.
[22] Liao, H., & Rupp, D. E. 2005. The impact of justice climate and justice orientation on work outcomes: A cross-level multifoci framework. Journal of Applied Psychology, 90 (2): 242–256
[23] Moorman, R. H. 1991. The relationship between organizational justice and organizational citizenship behaviors: Do justice perceptions influence employee citizenship?. Journal of Applied Psychology, 76 (6): 845-855.
[24] Mossholder, K. W., Bennett, N., & Martin, C. L. 1998. A multilevel analysis of procedural justice context. Journal of Organizational Behavior, 19: 131-141.
[25] Naumann, S. E., & Bennett, N. 2000. A case for procedural justice climate: Development and test of a multilevel model. Academy of Management Journal, 43: 881-889.
[26] Niehoff, B. P., & Moorman, R. H. 1993. Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. Academy of Management Journal, 36: 527-556.
[27] Organ, D. W. 1988. Organizational citizenship behavior: The good soldier syndrome. Lexington, MA: Lexington Books.

[28] Organ, D. W., & Ryan, K. 1995. A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. Personnel Psychology, 48: 775- 802.
[29] Parasuraman, A., Zeithaml, V. A., & Berry, L. L. 1988. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. Journal of Retailing, 64 (Spring): 12–40.
[30] Pfeffer, J. 1994. Competitive advantage through people. Harvard Business School Press: Boston, MA.
[31] Podsakoff, P. M., & MacKenzie, S. B. 1993. The impact of organizational citizenship behavior on evaluations of sales person performance. Journal of Marketing, 57(1): 70 - 81.
[32] Salancik, G. R., & Pfeffer, J. 1978. A social information processing approach to job attitudes and task design. Administrative Science Quarterly,23: 224–253
[33] Schneider, B. 1987. The people make the place. Personnel Psychology, 40(3): 437–454.
[34] Sekaran, U., & Bougie, R. 2016. Research Methods for Business, (7th Ed.), John Wiley & Sons Ltd. New York.
[35] Smith, C. A., Organ, D. W., & Near, J. P. 1983. Organizational citizenship behavior: Its nature and antecedents. Journal of Applied Psychology, 68: 653–663.
[36] Sun, L. Y., Aryee, S., & Law, K. S. 2007. High-performance human resource practices, citizenship behaviour, and organizational performance: A relational perspective. Academy of Management Journal, 50: 558-577.
[37] Tang, T-W., & Tang, Y-Y. 2012. Promoting service-oriented organizational citizenship behaviors in hotels: The role of high-performance human resource practices and organizational social climates. International Journal of Hospitality Management, 31: 885– 895.
[38] Walumbwa, F. O., Wu, C., & Orwa, B. 2008. Contingent reward transactional leadership, work attitudes, and organizational citizenship behavior: The role of procedural justice climate perceptions and strength. The Leadership Quarterly, 19: 251–265.
[39] Wang, M-L. 2009. Does organizational support promote citizenship in service settings? The moderating role of service climate. The Journal of Social Psychology, 149(6): 648–676.
[40] Wayne, S. J., & Green, S. A. 1993. The effects of leader-member exchange on employee citizenship and impression management behavior. Human Relations, 46: 1431–1440.
[41] Yang, J., Mossholder, K. W., & Peng, T. K. 2007. Procedural justice climate and group power distance: An examination of cross-level interaction effects. Journal of Applied Psychology, 92 (3): 681–692.

TOURISTS MOTIVATION TO VISIT TOURISM VILLAGE: A CASE STUDY ON GUMBRIH TOURISM VILLAGE – BALI

Gusti Ngurah Joko Adinegara[1], I Ketut Sirna[2], I W K Teja Sukmana[3]
[1,2,3] Faculty of Economics and Humanities, Universitas Dhyana Pura
jokoadinegara@undhirabali.ac.id

ABSTRACT

Tourism is one of the main factors that are expected to contribute greatly in efforts to economic growth in a region and tourism villages are a potential that is being developed by local governments, especially in Bali. Gumbrih Tourism Village has considerable potential in tourist attractions that are offered to tourists and has been established as a tourist village in 2017. The purpose of this study is to determine the factors that motivate tourists to visit Gumbrih Tourism Village. Factor analysis is used to provide the dimensions that underlie visiting motivation factors. The survey method was conducted and is expected to provide information for village tourism managers. From 98 respondents, it was found that from the eighteen variables used, four factors were formed that motivated tourists to visit the Gumbrih Tourism Village. These four factors are named according to the variable that has the largest loading factor value and is taken from the uniformity of the factors formed. These factors are the attractions offered, the uniqueness of local products, the ease of access and the protection of reptiles. All variables (% variance) used in the study were able to explain the motivation of tourists by 75.723 percent. Knowing the main reasons tourists visit can help the tourist village manager meet the needs and desires of tourists, because tourists want to know something different and unique from the places they visit.

Keywords: *Tourism Village, Tourist Attraction, Motivation, Tourists*

INTRODUCTION

Bali as one of the main tourist destinations in Indonesia has an advantage of tourist attraction from other regions, because it has supporting facilities that can be enjoyed by tourists (something to see, something to do, and something to buy). Many events that have been held in Bali have an impact on the increasing number of foreign tourist arrivals and also have an impact on the number of tourists visiting various tourist attractions and other supporting tourism facilities. Rural tourism is a concept that is being developed by the government together with local communities. Village tourism can offer natural resources, natural beauty, culture, unique habits and can offer educational tourism for tourists. Global developments in the world of tourism require tourism villages to do good planning and coordination with the community so that they can serve tourists well, so that tourism activities can be sustainable. Good cooperation between the managers of tourism activities with the community will have an impact on preserving the potential and uniqueness of the village.

Tourism development has provided many benefits to the community in a tourist destination, not only enjoyed by people directly involved in tourism, but also as a supporter of the development of other sectors (Rangus, et al. 2017). Likewise, Zhang, et al (2016) stated that tourism is becoming increasingly important for the economy and will benefit from the development of rural tourism by raising the potential of an area such as natural, cultural and historical resources. Community involvement in supporting the growth of tourism is very high. The community is involved in preserving and maintaining the authenticity of the tourist assets offered to tourists. The development of tourism today leads to tourism based on local communities (Community Based Tourism / CBT).

Baskoro and Cecep (2008) stated that CBT is a concept that emphasizes community empowerment to better understand the values and assets they have, such as culture, customs, culinary cuisine, and lifestyle. In the context of tourism development, the community is the main attraction for the tour experience. Then Suansri (2003: 14) defines CBT as tourism that considers aspects of environmental, social and cultural sustainability. CBT is a tool for community building and environmental conservation, or in other words CBT is a tool for realizing sustainable tourism development. Furthermore, Brokaj (2014) states that there are four elements those make up the development of sustainable tourism consisting of economic sustainability, environmental / ecological sustainability, socio-cultural sustainability, and the sustainability of local communities. These four elements must be manageable to achieve sustainable tourism, and the participation of tourism stakeholders is indispensable in the protection of tourism attractions and destinations.

In order to encourage the sustainability of rural tourism and to achieve success in the tourism industry, an understanding of the factors that motivate tourists to visit rural areas is needed. Cho, et al (2014) who conducted research in rural areas in Korea found that overall satisfaction of tourists was influenced by physical infrastructure, service quality, and level of satisfaction with tourism programs. However, the service quality is more related to the intention of tourists to re-visit and recommend. These findings reveal that tourist satisfaction is high when tourists get tourist information through official government sources, word of mouth and internet advertising, and show a positive correlation between tourist satisfaction and information sources reflecting the reliability and credibility of these sources.

Gumbrih Village is one of the new tourist destinations and is well known by domestic and foreign tourists. Gumbrih Village offers its potential, which is managed by several community groups and is part of a tourism awareness group. The potential offered such as Tirta Tourism, Organic Farmers Group, Chocolate Farmers Group, processed Virgin Coconut Oil (VCO), Mushroom Cultivation, Salt Farmers, Gurami Farmers Group, Restaurant, Bali Reptile Rescue, ATV Attractions, Tracking, Club Music and Dance. The number of tourist visits to Gumbrih Tourism Village, based on data from the Bali Tourism Office in 2017 was 3,573 visitors. This number is relatively small and due to the many competitors in Bali. Nowadays, the development of new attractions in Bali continues to increase, both offering the same attractions or different attractions. This condition has led to increasing competition among attractions in Bali in offering the potential of their respective regions. Tourists will have many alternatives in their tourism activities. Distance, facilities, and unique attractions will be considered by tourists in conducting tourism activities. Therefore, the tourism village must be able to maintain the unique attractions so that tourism activities can be sustainable and have an impact on people's welfare.

In developing a concept of sustainable tourism especially in newly developing regions, Zhang, et al (2016) stated that rural areas face many challenges in developing rural tourism due to weak knowledge about tourism management and do not yet have integrated planning. Therefore, the steps that can be taken in overcoming this challenge are by making a strategic planning model which is the process of determining the vision for the desired future and developing ways to achieve that vision. Understanding of tourist behavior and travel motivation, it is important to know for tourism entrepreneurs to create demand and assist tourists in decision making (Van-Vuuren and Slabbert, 2011). Consumer behavior is a difficult research topic, especially in tourism, where factors have a significant emotional influence (Kotler et al., 2012). Many researchers acknowledge that the tourist decision-making process is a very complex program, which includes various stages or sub-decisions, elements, and concepts that are interrelated (Cohen et al., 2014). Furthermore, Van-Vuuren and Slabbert (2011) state that tourist behavior is a direct result of interactions between personal variables and certain environments in a sustainable manner.

ISBN: 978-602-53420-4-2

The decision making process of tourists in choosing tourist destinations is influenced by various factors that are constantly changing, depending on the influence of tourist needs and habits, as well as the influence of external factors (Djeri et al., 2007). Internal factors that influence decision making include the desire to run away, rest, relaxation, prestige, health and fitness, adventure, and social interaction, while external factors are based on the attractiveness of goals, including tangible resources, and perceptions and expectations tourists (Hsu et al., 2009). Then Bashar and Al-Ajloni (2012) who conducted research in the Petra area in Jordan found that the factors that motivate tourists to visit are rural environmental factors, facility factors, weather factors, cultural relations factors and adventure factors.

From the potential level of competition faced by Gumbrih Tourism Village, it is necessary to have good support in the face of competition, must always create innovation, creativity and offer new uniqueness, in order to meet the changing needs of tourists. Strategy in the management, marketing, and productivity of Gumbrih Village, is very necessary to do because it can know the strengths and weaknesses, opportunities and threats they have, so that the right decisions can be taken in improving management and marketing activities. Gumbrih Tourism Village continues to improve to explore the existing potentials so that they can be offered to tourists. The active role of community groups as well as the Tourism Awareness Group is expected to be able to work together with local villages in order to increase the tourism potential in Gumbrih Village.

Increasing the number of tourists visiting is one of the destination management efforts to maintain tourism sustainability and continue to provide quality services to tourists. Satisfied tourists will tend to be loyal and visit again on upcoming holidays, and recommend these destinations to friends and relatives for a vacation to the same destination (Som and Badarneh, 2011). Therefore, tourism managers must be able to provide good services including the availability of supporting facilities that can provide satisfaction for tourists. This research was conducted to determine the factors that motivate tourists to visit the Gumbrih Tourism Village and the results are expected to help managers in making strategies to increase tourist visits while evaluating existing tourist attractions and facilities.

METHODS

This research was conducted in Gumbrih Tourism Village, Pekutatan District, Jembrana Regency and this study used a quantitative research design with survey methods. The variables used in this study are the results of identification of the types of tourist attractions offered by Gumbrih Tourism Village such as: natural beauty around the village, the coolness of the area around the village, hospitality of local residents, unique local culinary, quality local culinary, adequate product prices, local chocolate products, organic products, tirta tours, Virgin Coconut Oil (VCO) products, mushroom products and cultivation, salt farmer activities, tracking tourism activities, ATV vehicle activities, Bali Reptile Rescue activities, diversity of dance and percussion, access to villages Gumbrih and access to attractions.

The instrument used was divided into two parts: part I collected general demographic information of tourists; part II refers to the perceptions of tourists about tourist attractions offered by the Gumbrih Tourism Village. The questionnaire was filled in around the research object so that it would be easier to fill out the questionnaire. All evaluations were measured using a five-point Likert Summated Scale (LSR) with a scale value of 1-5. Based on the data obtained, the number of tourists visiting Gumbrih Tourism Village in 2017 was 3,573 tourists. Determination of sample size using Slovin formula (Ghozali, 2011) with a sampling error of 10%, the sample size in this study was 98 respondents. Factor analysis is used to answer the research problem formulation.

FINDINGS AND DISCUSSIONS

Before analyzing the results of the questionnaire, first tested the instrument used in this study with the test of validity and reliability. Validity test is done to measure the validity of a questionnaire by using Pearson correlation value (r)> 0.3 and reliability test is carried out to measure the reliability of a questionnaire by using the Cronbach alpha (α) value> 0.6 (Ghozali, 2011: 47-48). Based on the results of the validity and reliability test, the results are obtained that all instruments used in this study are valid and reliable.

Table 1. Reliability Statistics

Cronbach's Alpha	N of Items
.934	18

Based on the questionnaire collected, it is known the respondent's gender, there are 48% of respondents are male and 52% of respondents are female, age is dominated by young people with an age range between 15-25 years (42.9%) and followed by young adults (26-35 years old) at 34.7%, while respondents aged over 45 years were at 6.1%. Based on origin, it is dominated by the local area of Jembrana (28.6%) because the location of Gumbrih Village is part of Jembrana Regency and for foreign countries it is dominated by European countries (20.4%) and from Japan (8.2%).

Based on the frequency of visits, it is known that tourists visiting are dominated by tourists visiting for the first time (53.1%) and then visiting more than 3 times (11.2%). Then dominated by tourists visit with friends (79.6%), followed by tourists visit with family (14.3%) and traveling alone to Gumbrih (6.1%). Based on the information obtained, dominated by tourists who know the information of Gumbrih Tourism Village from social media (61.2%), from relatives (15.3%), from friends (12.2%) and get information from other media such as from travel agents (11.2%).

In factor analysis, the first step is to test whether the data is feasible to be tested using factor analysis, by looking at the correlation matrix between variables and testing whether the correlation matrix is a non-singular matrix. Based on KMO and Bartlett's test results, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy rate is 0.817. This value is above 0.5 with a significance of 0,000 (<0.05), then the variables and samples are eligible for further analysis with factor analysis. Based on Bartlett's test of sphericity with chi-square 1774,404 (DF=153) and significance = 0,000 <0.05, shows that the correlation matrix is an identity matrix so that further analysis can be done.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.817
Bartlett's Test of Sphericity	Approx. Chi-Square	1774.404
	df	153
	Sig.	.000

The next step is to look at the anti-image matrices values as shown in table 10. Anti-image matrices are performed to determine whether the variables are partially feasible to be analyzed or not, and excluded in testing. Based on the anti-image correlation all variables have value above 0.5, so that it can be concluded that all of these variables can be done factor analysis.

Table 3. Anti Image Metrics

Anti-image Correlation	Nature	.841[a]
	Cooless	.806[a]
	Hospitality	.753[a]
	Unique cuisine	.718[a]
	Quality cuisine	.881[a]
	Product price	.896[a]
	Chocolate product	.941[a]
	Organics product	.892[a]
	Tirta tourism	.906[a]
	VCO	.795[a]
	Mushroom product	.581[a]
	Salt farmers	.863[a]
	Tracking	.766[a]
	ATV activities	.771[a]
	Reptile rescue	.581[a]
	Dance	.895[a]
	Access to Gumbrih	.845[a]
	Access to attraction	.768[a]

The next step is doing factoring and rotation. First, by analyzing communalities which are basically the amounts of variance of an initial variable that can be explained by the existing factors. All variables can be explained by the factors formed with the provision that the greater the communalities, the more closely the variables related to the factors formed. The results obtained that the eighteen initial variables have a large value of communalities that is> 0.05. This can be interpreted that the overall variables used have a strong relationship with the factors formed. In other words, the greater the value of communalities, the better the factor analysis, because the greater the characteristics of the origin variable can be represented by the factors formed.

After conducting a communalities analysis, the next step is to rotate the factors, because in general the factors obtained from the analysis of the main components are still difficult to interpret or to avoid overlap between variables. The rotation used is the varimax rotation which aims to maximize the amount of diversity for all factors. With this rotation, a high correlation between each origin variable and certain factors will be obtained. In table 4 the total variance explained, of the 18 variables analyzed, can be grouped into 4 factors where the eigenvalues that indicate a number greater than one.

Table 4. Total Variance Explained

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	7.953	44.186	44.186
2	3.057	16.984	61.170
3	1.575	8.748	69.918
4	1.045	5.805	75.723

The next step is to determine the variables that support each factor based on the loading value, where the loading value shows the correlation between the original variable and the factor. From the factor loading matrix, we can determine the variables that support each factor and the extent of that support for the factors. To determine the variables that enter into each factor, the concern is the large loading varimax value. A correlation number below 0.5 indicates an indication of a weak correlation while above 0.5 means a strong correlation. Although of 18 variables have been formed into factors, it is necessary to rotate to clarify which variables are included in each factor. There are several loading factors that change after rotation and have a value that is smaller or larger. Based on the results of the Rotated Component Matrix, the eighteen variables can be grouped into 4 factors (Table 5).

Table 5. Rotated Component Matrix[a]

	Component			
	1	2	3	4
Nature	.165	.721	.420	.249
Cooless	.281	.764	.416	.230
Hospitality	.194	.288	.852	-.055
Unique cuisine	.961	.122	.012	.032
Quality cuisine	.145	.679	.435	.091
Product price	.063	.705	.417	.153
Chocolate product	.008	.139	.606	.336
Organics product	.311	.732	.366	.054
Tirta tourism	.296	.753	.371	.157
VCO	-.083	.788	-.028	-.069
Mushroom product	.120	.134	.075	.899
Salt farmers	.883	.163	.105	.066
Tracking	.877	.100	.069	.060
ATV activities	.033	.253	.501	.093
Reptile rescue	.097	.082	.119	.867
Dance	.742	.086	.222	.159
Access to Gumbrih	.896	.072	.111	.031
Access to attraction	.212	.302	.857	-.009

Based on the results of the Rotated Component Matrix in Table 5, the variables included in each factor are as follows:

a. Factor 1 consist of 5 variables: unique cuisine, salt farmers, tracking, dance and access to Gumbrih.
b. Factor 2 consist of 7 variables: nature, cooless, quality cuisine, product price, organics product, tirta tourism, and VCO.
c. Factor 3 consist of 4 variables: hospitality, chocolate product, ATV facilities and access to attraction.
d. Factor 4 consist of 2 variables: mushroom product and reptile rescue.

The third step is to determine the label or naming factor that has been formed. After the factors are formed, it turns out that the variables entered in each factor are not the same as previously predicted. Therefore it is necessary to give a new representative name for the variables included in each of the factors that have been formed. Factor 1 was named the tourist attraction factor, for factor 2 it was named the uniqueness factor of local products, for factor 3 it was named the ease of access factor and for factor 4 it was named reptile rescue factor.

Furthermore, the analysis of the accuracy of the model test is done by looking at the value of the comparison between the observed correlations with reproduced correlations. It is expected that the new changes in the correlation matrix is not much different from the original correlation matrix. For this reason, it is necessary to calculate the changes that occur, by calculating the difference in the value of the correlation coefficient of the original correlation matrix with the correlation coefficient of the new correlation matrix. Based on the results it is known that between the observed correlations (on the correlation matrix) with the reproduced correlation (estimated from the factor matrix) is called the residual, there are 50 residuals or 32% with absolute values above 50% and based on these values, the model has an accuracy of 68%.

CONCLUSION

The purpose of this study was to determine the factors that motivate tourists to visit Gumbrih Tourism Village. Factor analysis is used to provide a dimension that underlies the motivational factor of visiting Gumbrih Tourism Village. Based on the discussion, it is known that from the eighteen variables used, 4 factors were formed which motivated tourists to visit the Gumbrih Tourism Village. All variables (% variance) used in the study were able to explain the motivation of tourists by 75.723 percent. These four factors can be named according to the variable that has the largest loading factor value and is taken from the uniformity of the factors formed. These factors are tourism factor, local product uniqueness, ease of access and reptile rescue factors. Knowing the main reasons tourists visit can help the tourist village to meet the needs and desires of tourists, because tourists want to know something different from their habits in their home regions.

Recommendations for the manager of the Gumbrih Tourism Village are (1) The management is expected to pay attention to the four factors formed in motivating tourists to visit Gumbrih because based on the results obtained, tourists prioritize enjoying the food available around Gumbrih Village, because it is a resting place for driver in traveling from Denpasar to Gilimanuk or vice versa. (2) The management should promote and introduce tourism-aware groups whose access is far from the road and is not well known by visitors such as ATV motorbikes and virgin coconut oil (VCO) products, so that visitors or tourists are more familiar with these products. (3) The management is expected to have complete information in the form of brochures or others and make a model of a tour package about the tourism potential of Gumbrih Village in collaboration with the local government (marketing and tourism strategies), because some tourists do not yet know in detail about the attractions in Gumbrih Village.

Furthermore, reliable information will have an impact on the promotion of Gumbrih Village, because tourists will have more confidence in information obtained from their friends or relatives, both through social media and other media. The recommendation for future research is to examine the effect of each factor offered on tourist satisfaction.

REFERENCES

[1] Baskoro, BRA & Cecep, R. 2008. Membangun Kota Pariwisata Berbasis Komunitas: Suatu Kajian Teroritis. Jurnal Kepariwisataan Indonesia. Vol. 3, No. 1. p. 37 – 50.
[2] Badan Pusat Statistik (BPS) Bali. 2019. Pertumbuhan Ekonomi Bali 2018. Laporan BPS Bali Provinsi Bali.
[3] Bashar & Al-Ajloni, A. A. 2012. Motivating Foreign Tourists to Visit the Rural Site In Jordan, Village Of Petra. Australian Journal of Business and Management Research. (2) 5, p. 01-07.
[4] Brokaj, R. 2014. Local Government's Role in the Sustainable Tourism Development of a Destination. European Scientific Journal. Vol. 10, No: 31. p. 103-117.
[5] Cohen, S. A., Prayag, G & Moital, M. 2014. Consumer Behaviour in Tourism: Concepts, Influences and Opportunities. Current Issues in Tourism, Vol. 17, No 10, p. 872-909. DOI: 10.1080/13683500.2013.850064.
[6] Cho, H., Byun, B & Shin, S. 2014. An Examination of the Relationship between Rural Tourists' Satisfaction, Revisitation and Information Preferences: A Korean Case Study. Sustainability. , 6, p. 6293-6311. DOI: 10.3390/su6096293
[7] Desa Gumbrih. 2017. Profil Desa Gumbrih Tahun 2017.
[8] Dinas Pariwisata Provinsi Bali. 2019. Jumlah Kunjungan Wisatawan pada Objek-Objek Wisata di Bali 2018. http://www.disparda.baliprov.go.id/id/statistik. Accessed on March 2019.
[9] Djeri, K, Plavša, J. & Čerovic, S. 2007. Analysis Of Potential Tourists' Behaviour in The Process Of Deciding Upon a Tourist Destination Based on a Survey Conducted In Bačka Region. Geographica Pannonica, Vol. 11, p. 70-76.
[10] Ghozali, Imam. 2011. Aplikasi Multivariate dengan Program IBM SPSS19. Edisi 5. Semarang – Universitas Diponegoro.
[11] Hsu, T, Tsai, Y. & Wu, H. 2009. The Preference Analysis for Tourist Choice of Destination: A Case Study of Taiwan. Tourism Management, Vol. 30, No 2, p. 288-297. DOI: 10.1016/j.tourman.2008.07.011.
[12] Kotler, P & Keller, K. 2012. Marketing Management. 14th Edition. Prentice Hall – New Jersey.

[13] Rangus, M., Brumen, B & Topler, J. P. 2017. Sustainable Tourism Development in Rural Areas: The Role of Stakeholders. Academica Turistica, 10(2). p 167- 173.

[14] Som, A & Badarneh, M. 2011. Tourist Satisfaction and repeat Visitation Toward a New Comprehensif Model. International Journal of Human and Social Science. 6 (1). p. 239-246

[15] Suansri, P. 2003. Community Based Tourism Handbook. Bangkok, Thailand: Responsible Ecological Social Tours Project (REST).

[16] Van Vuuren, C & Slabbert, E. 2011. Travel Motivations and Behaviour of Tourists to a South African Resort. African Journal for Physical Activity and Health Science. Vol. 17, No. 4, p. 694 – 707.

[17] Zhang, L., Choi, C., & Joppe, M. 2016. "The Potential for Developing Rural Tourism in Xiajin County, China: A SWOT Analysis". Travel and Tourism Research Association: Advancing Tourism Research Globally. 10.

SOCIAL-CULTURAL APPROACHING CAN PREVENTING SPREAD OF RADICALISM AND ESTABLISH TOLERANCE IN INDONESIA

Dermawan Waruwu[1*], Made Nyandra[2], Ni Made Diana Erfiani[3]

[1]Psychology Program, Universitas Dhyana Pura;
[2]Public Health Program, Universitas Dhyana Pura;
[3]English Program, Universitas Dhyana Pura

Email: dermawanwaruwu@undhirabali.ac.id[1*]; madenyandra@undhirabali.ac.id[2]
dianaerfiani@undhirabali.ac.id[3]

ABSTRACK

The spread of radicalism has ruined the Indonesian social, cultural, economic and political aspect. The social foundation which sticks to everyone is dependable to each other. No one is able to go through his life well without others. However, the world civilisation is kept on improving alongside with the increasing population thus creating complex plurarity. Not only the plurarity in personality but also in all lines which create unstopable plurarity in religion, beliefs, customs and cultures, languages and others. The situation becomes a positive area and also becomes an exclusive challenge for the ongoing community society in the county. Recently, the trending hot social issues in Indonesia are miserable, namely the spread of radicalism, terrorism and intolerance. Intolerance has happened on several areas become a serious task for the security department to encounter and overcome. These situations have urged the needof social community perspective to as the preventing indicators for the of radicalism and establish tolerance in Indonesia. The method applied was a qualitative method with a cultural study approach and applied social practice theory. The aim of the study was preventing the spread of radicalism and establish tolerance in Indonesia through a socio-cultural approaches. The results of the study found that the socio-cultural approaches can preventing the spread of radicalism and establish tolerance in Indonesia. Thus, community are not afraid of activities and social harmony is establish in Indonesia.

Keywords: Social-cultural approaching; Radicalism; Tolerance; Indonesia.

INTRODUCTION

Development of the word is unable to withstand the changing movement on the social aspects. The high acceleration of the technology era contributes the implication of social behaviours. Human life orientation has changed as the result of the fast improving of the neighbouring. Thus, sociology perspective among human shows negative attitudes because of the domination of materialistic thinking in general. Living competition has become the main movement which is able to decrease the relationship among each other. Not only the income aspect and living amenities struggling but also the fames, religions, ethnics, tribes and beliefs have given the contribution too.

The shiftings are hardly to avoid the social conflicts in the the midnist of the society. In the end these conflicts may bear the intolerance behaviours and attitudes as the strategy to protect the succeed life in community. The intolerance pressures are gaining the threats to those want to create own superiority for both the individuals and groups. Indonesia is one of the open free-will countries, will be a great opportunity for the outer parties to come into the country. There is no exception of radicalism which is the product of other countries which enters and tries to build the influence in the country. The implication is a growing misunderstanding among each other.

Moreover, there are harsh ways in the socializing of ideology being used to win over the followers of the ideology of radicalism. A sound of a significant growing of intolerance acts occured. According to the data revealed by SETARA Institute, there were 109 cases of discrimination of intolerance, hatred statements on 20 provinces in Indonesia in the year 2018, showing an increasing from 80 cases in the year 2017 (Persada, 2019).

Intolerance is due to the radicalism understanding which entered Indonesia in the form of ideology with a close related to belief in religion. Recently Indonesia has a problem in the part of developing radicalism issues as the results of the global issues that has been spreading to all aspects such Al-Qaeda and ISIS (Sari, 2019). Those groups as the form of the oppression to global radicalism towards the unfair actions of the world happenings. These matters are linked to the actions 'sliding' by the world's leaders towards Palestine, the huge economic gaps in Islamic countries and also the West culture expansion that being issued to demolish Islam values such as hedonism and materialism. Moreover, the appearance of radicalism is one of the contribution of the changing order of social politics, as the implication of outside parties have brought in the country the new ideology, the harsh ideology and intolerance acknowledge (Asrori, 2015).

METHODS

The method applied was a qualitative method with a cultural study approach and applied social practice theory (Field, 2014). The research is based on the qualitative descriptive. Data collected through observation, interviews, and documents related to the development of radicalism, terrorism and intolerance occurred in the Provinces of Bali, Lampung, Central Kalimantan and North Sumatra (Indonesia). Interviews were conducted with the religious leaders, traditional leaders, communities and tourists. The gathered data by collecting literatures, observations from the development of intolerance issues in Indonesia from various medias.

FINDINGS AND DISCUSSIONS

Indonesia is a large archipelago country in the world located in South east Asia, in between Asia and Australia continents, on 6°LU – 11°08'LS dan dari 95°'BT – 141°45'BT. Together in the 2 oceans, Pacific and Indian alongside located on the equator. Indonesia

ISBN: 978-602-53420-4-2

has 260.580.739 people (estimation on July 2017) with its majority Islam religion (around 87.2%). With 260 million people has put Indonesia into the 4th largest population in the world (around 227 million people are Mosleem). Below table shows the percentage pof population according to the religion.

Table 1. Percentage pof population according to the religion

AGAMA	PERSENTASE
Islam	87,2 %
Christian	7 %
Catholic	2,9 %
Hindu	1,7 %
Buddha & Kong Hu Chu and others	0,9%

Sumber: ilmupengetahuanumum.com, 2019

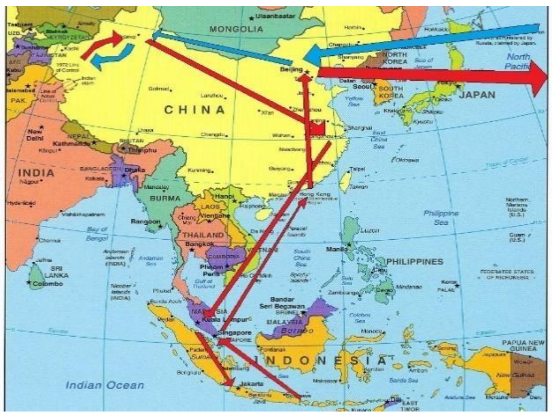


Figure 1. Map of the Spread of Religion to Indonesia
(Source: ilmupengetahuanumum.com, 2019)

Population according to the local tribes are as follows: Jawa 40.1%, Sunda 15.5%, Melayu 3.7%, Batak 3.6%, Madura 3%, Betawi 2.9%, Minangkabau 2.7%, Bugis 2.7%, Banten 2%, Banjar 1.7%, Bali 1.7%, Aceh 1.4%, Dayak 1.4%, Sasak 1.3%, Tionghoa 1.2%, suku bangsa lainnya 15% (estimation on 2010).

Tolerance is the essential need to support the sustainable living society. According to the sociology meaning, tolerance has about 5 possibility foundations, such as openness to diversity fo a peaceful life, respecting the developing difference on the society without being forced to be unity, admitting others rights, expressing of acceptance others by real actions such as to listen, to make friends, to give support on differences (Damayana, 2011); (Aryana, 2017).

ISBN: 978-602-53420-4-2

Tolerance is a foundation on respecting and symphatizing others (Abdurrahman Wahid, 2011). One of the approaching to crerate tolerance in Indonesia is via social approaching which is the fittest for the diversity communities. There are 2 ways of approaching perspective in order to build a social solidarity among the communities, social system and culture system.

Perspective of social system via inter-group relation is the relationship among the members from the various kind of groups. The more intensive the relationship among the groups, the higher the level of integrity among them. This inter-group relation can also neutralize the group conflicts as there are no single loyality among the members of each group, but they have twin sharing loyality according to the groups they have entered. Social groups can counter-hegemony the government (Waruwu and Mudana, 2018). Therefore, this reduces the worriedness of fanaticism occurance, the neutralizing of primordial sentiments as there are twin-sharing loyality possess by the group members.

The importance of social approacing in the form of culture due to the possibility of people plurarity to be united., if there is general value acceptance in the community. The values are from the community culture which is having multi ethnics as the measurement of the right attitudes. The most important thing to be crystalized is there is recognition and acceptance on differences. Within those will bear a positive impact in relation with religion aspect as well in the end the democracy and tolerance should have a close connection in both the society of politics and civil (Misrawi, 2010). Thus, community are not afraid of activities and social harmony is establish in Indonesia.

CONCLUSSION

Social development is a part of history development in community particularly in Indonesia. the true contribution has given significant problems which occured in the society. Moreover, Indonesia is one of the biggest nation in the world based on the width of area, huge population and also the diverse plurality, gives both positive and negative contributions. The real negative aspects are becoming the strong issues in intolerance acts. Shifting social life is due to the economics and politics factors which contribute to negative support for the growing development of intolerance in the country. Lastly, the need of tolerance is particularly the main point in community living. The attempts to create the tolerance may reach by the social approaching. The reason is the country as a diversity in tribes, languages, religions and cultures thus the social values are the best bait to be the stimulus for tolerance creating in Indonesia. development of friendship, rspecting each other with the point of social values and community cultures are a must movement to be carried forward. Within the approaching of relationship among cummunities will be a blueprint of social approaching to minimalize the intolerance acts occurance.

ACKNOWLEDGEMENTS

This research supported by The Directorate of Research and Community Service (DRPM) Ministry of Research, Technology, and Higher Education for the Applied Research grant in the 2019 fiscal year. Acknowledgments also the authors convey to the Institute of Research and Community Service at the University of Dhyana Pura Bali where the Higher Education Tridharma is conducted.

REFERENCES

Aryana, I. G. M. (2017) 'Kuasa di balik harmoni: Etnografi Kritis Relasi Etnis Tionghoa dan Etnis Bali di Desa Pupuan, Tabanan, Bali', *Jurnal Kajian Bali*, 7(1), pp. 1–16. doi: https://doi.org/10.24843/JKB.2017.v07.i01.p01.

Asrori, A. (2015) 'Radikalisme di Indonesia: Antara Historisitas dan Antropisitas', *Kalam: Jurnal Studi Agama dan Pemikiran Islam*, 9(2), pp. 253–268. Available at: http://ejournal.radenintan.ac.id/index.php/KALAM/article/view/331/187.

Damayana, I. W. (2011) *Menyama Braya: Studi Perubahan Masyarakat Bali*. Salatiga: Fakultas Teologi, Universitas Kristen Satya Wacana.

Field, J. (2014) *Modal Sosial*. Bantul: Kreasi Wacana.

Misrawi, Z. (2010) *Pandangan Muslim Moderat: Toleransi, Terorisme, dan Oase Perdamaian*. Jakarta: PT. Kompas Media Nusantara.

Persada, S. (2019) *Setara Institut: Intoleransi Terhadap Keyakinan Meningkat*, *https://nasional.tempo.co*. Available at: https://nasional.tempo.co/read/1118802/setara-institut-intoleransi-terhadap-keyakinan-meningkat/full&view=ok (Accessed: 22 November 2019).

Sari, H. P. (2019) *Surya Paloh: Radikalisme Ada di Mana-mana, Jangan Bilang Tak Ada*. Available at: https://nasional.kompas.com/read/2019/08/14/20144971/surya-paloh-radikalisme-ada-di-mana-mana-jangan-bilang-tak-ada.

Waruwu, D. and Mudana, I. G. (2018) 'Counter-Hegemony in the Development of Bawomataluo Tourist Destination, Nias Selatan, Sumatera Utara', *E-Journal of Cultural Studies*, 11(2), pp. 1–8. doi: https://doi.org/10.24843/cs.2018.v11.i02.p01.

ISBN: 978-602-53420-4-2

HOW TO EXPLAIN WOMEN ENTREPRENEURS DEVELOP AND SUSTAIN THEIR BUSINESS (ETHNOMETHODOLOGY IN BATIK SME)

Sony Heru Priyanto[1], Theresia Woro Damayanti[2], Rosaly Franksiska[3]
[1]President University; [2]Satya Wacana Christian University; [3]Satya Wacana Christian University
sony.priyanto@president.ac.id

ABSTRACT

Many researches have been addressing about how women entrepreneurs started their business, but those researches didn't discuss and deepen how the women entrepreneurs develop and maintain their business to keep exist yet. This research tries to explain about those things. Using a qualitative ethnomethodology approach, this paper involves six batik women entrepreneurs as participants with different backgrounds and environments. The data validity was tested by triangulation methods and then analyzed using union techniques. The findings show that women entrepreneurs can survive within some ways: first is by letting it flow, learning by doing; trial and error; and entrepreneurial spirit. In terms of financial capital, they are using bank and family funds. While to increase selling, exhibitions and channeling systems are the things used by them. The labors are there with the semi-labor system, where they are given money to work on their own house with the materials provided. In other words, the women entrepreneurs have labors but they are not working on the factory that owned by the entrepreneur. The future research needs to deepen the link between business fields and gender entrepreneurship and needs to correct the understanding that entrepreneurship is masculine. In addition, this research produces a proposition in the form of a performance model for female entrepreneurs.

***Keywords**: Women Entrepreneur, Ethnomethodology, Develop and Sustain Business*

INTRODUCTION

Many previous research shows that women entrepreneurs have more weaknesses than male entrepreneurs. Some authors point out that weakness is like having a psychological makeup that is less entrepreneurial or at least different from that of a man's [1-4]; having less motivation for entrepreneurship or for growth of their businesses [5, 6]); having less desire to start a business [7, 8]; being risk averse ([9]) and so on.

Previous research has focused on contrasting between female and male entrepreneurs. Not much emphasis has been given to the role of women entrepreneurs as financial supporters of their husbands and families on their social context. It is no wonder that in many sides, women entrepreneurs are still fewer than men entrepreneurs. Bakan [10] revealed that there are personality differences in males and females in their orientation towards achieving results (agentic) as well as differences in characteristics that are oriented towards service and social activities (communal). Males are characterized as being aggressive, like challenges, as well as firm and independent. Meanwhile, females have a nurturing trait, like to help others, and have a higher level of empathy. Likewise, when female entrepreneurs manage their businesses, they will put more of their souls into the enterprises. Gender stereotype can influence the cognitive aspect and behavior of an individual [11]. There is a gender stereotype in the entrepreneurship intensity that tends to be more authoritative in males. Jobs that are labeled as being more appropriate to be done by men (masculine stereotypes) like becoming entrepreneurs can weaken women's roles in the business world [12]. Previous findings found that good organizational management is that which applies a management type that is dominated by masculine traits [13-16].

Is it true that women tend to be empathic, feeling, less aggressive, less assertive in running their business? In situations where women have husbands and are poorly supported, this condition may occur. But when they have the opportunity and social freedom or have independence in action, it is not impossible, that condition turns around. This research tries to explain how women entrepreneurs who have independence or do not experience psychological makeup in running their business, where not many researchers have explained. As Ahl and Nelson [17] noted, the study of the intersection of institutions and entrepreneurship for male and female entrepreneurs are rich and important work, and that it should be extended.

The purpose of this research is to describe how female entrepreneurs can assemble resources including financial capital, as well as construct financial power to develop a batik business through identifying the business environment, alternative funding, how to take advantage of the funds, as well as the effects for developing an enterprise in the context of their entrepreneurial independence in the social frame.

METHODS

In order to respond to the research problem, this research uses an ethnomethodology method. It is the study of how people make sense of their experiences [18]. In this case, this method discusses how researchers understand women entrepreneurs in batik businesses develop and sustain their businesses in a social frame. The understanding of this, on the other hand, can also be used to explain the presence or absence of gender bias in entrepreneurship.

Participants in this research were taken from three regions that considered as batik producers like Pekalongan, Lasem, and Gemawang, Central Java Province. This province was chosen because all the regencies/cities are batik industries. These three locations were picked up due to the large number of batik small and medium enterprises found here, whether they have already exported or not. In addition, these regions have their own unique aspects. Lasem was picked up because its batik is a mixture of Javanese culture and Chinese culture (mixture); Pekalongan was selected since its batik is a mixture of more complex cultures, including Chinese, Malaysian, Japanese, Dutch, and Arab. Besides, Pekalongan batik has developed to become a batik industry that is not only handmade and printed, but also it is a printing industry (assortment). Then Gemawang was chosen because it is a new batik area that does not have a special cultural characteristic. Related to this, 6 participants were chosen from 3 different locations, who were considered being able to reflect the conditions/variations of shoreline and non-shoreline batik regions.

This research was planned to be conducted in three stages of data gathering, processing, as well as analysis and synthesis. The data collection has been done with an observation technique, in-depth interviews, discussion, communication, and interactions through social media. Arranging the transcripts, reduction, grouping, themes, and patterns were part of the data processing stage, before conducting an analysis and synthesis by using a union analysis through searching for similarities and differences from the information collected.

Before being analyzed, a data validity testing was conducted with different methods (triangulation). There were different interview techniques, observations, sources, and times utilized. After the data underwent a reduction process, coding, grouping, classification, theme and pattern arrangement, the data was then analyzed by using a union technique, by narrating the field data and describing in-depth about the funding strengths for female batik entrepreneurs. Union analysis is looking for the same answers, then put together and separate different answers so that research findings are obtained.

FINDINGS AND DISCUSSIONS

There are two ways to develop a business. The first is by following the habits that have been handed down over the years, going on with the batik business environmental condition. When ordering raw materials, making a design, doing batik, drying it out, and marketing the products, it all follows the same pattern since long ago. They are already used to the ways and methods that have been done since the past. This pattern is usually found from the previous generation's habits (like parents) and the environment.

> "I developed the business by just following the flow. I want this batik business to develop even more." (Mrs. Sri Rejeki, 41 years old, batik entrepreneur of Loyal Pekalongan)

> "Since it is already my job, I just run it. I don't ever think about how much profit I make. The most important thing is that I can help my husband." (Mrs. Khafidoh, 40 years old, batik entrepreneur of D'Eva Pekalongan).

The second is by starting from scratch, from trial and error, by joining training and market developments as well as working with other entrepreneurs. In this group, developing their businesses is done by continuously looking for patterns and methods that make their businesses become advanced. Pattern or design innovations, colors and coloring, workforce management, marketing, and funding are continually sought and done to develop their enterprises.

> "In the future, I want my business to be even more successful and expand my business, but I lack financial capital. Although there are many problems, I am still enthusiastic to keep this business going, so that it advances. For that, I want to learn the technical aspects of coloring. I also want to develop the batik patterns and designs based on the market needs. The biggest thing is having spirit, because I pioneered this from nothing. At first, I could not do anything. I want to market my products online." (Nurjanah, 27 years old, batik entrepreneur of Trisula Lasem)

> "For instance, if there is a training invitation, the way to market online is very beneficial. So, in the future I want to do it online. Every time there is an offer to do an exhibition from the government, I always take it." (Mafludoh Fitrotaullah (Vivit), 22 years old, batik entrepreneur of Lasem)

Besides from the method, business development can also be done from the entrepreneur aspect. The primary principle in developing their financial capital is by having strong tenacity, working hard, being diligent, always wanting to advance, striving to develop, not being afraid to try something new, always wanting to learn to find a way to develop a business, wanting to sacrifice in order to develop the business, not just asking, and thinking of a batik business as one which has value, not just as a way to make goods. In order to develop a business, the proper strategies are also needed, such as the designing, coloring, and marketing.

> "I want to try as much as possible to do my best work. One of the ways is by joining design and batik contests. The works that become the specialty products are those that show the wayang character themes, which are *punakawan* that are identic with Javanese people." Through her batik designs, she hopes that the Javanese culture will continue to exist, especially among the young generation. She is also active in doing promotions by joining a number of events like batik spectacular events that are held by the Rembang government. Every time there is a promotion offer, she thinks for a long time about becoming one of the participants. (Mafludoh Fitrotaullah (Vivit), 22 years old, batik entrepreneur of Lasem).

> "Finally, three years ago (2013), my mom started a batik business, but it also failed because she did not have any experience or coloring (she really couldn't do any batik) and no marketing. She started to make one kind of cloth only. My mom's batik business was not as good as my neighbor's, and people often gave whatever prices they felt like giving at the time. I wanted to improve this condition by making a new motif. Only after four years, I started to handle the production, marketing, and coloring. Fortunately, the business is starting to do better." (Mafludoh Fitrotaullah (Vivit), 22 years old, batik entrepreneur of Lasem).

As seen from the business aspect, to adjust with the market buying power, two kinds of *mori* (cloth) raw materials are provided, the expensive (*primis*) one and the inexpensive (*prima*) one. The coloring patterns and techniques are adjusted according to the market taste. Meanwhile, to market it, it uses a simple shop window at home, joins exhibitions, a consignment to other batik makers, and some of them already have social media like Facebook and WhatsApp. Related with the employee salary system, they are paid directly for every job that is given. However, there is also another payment system utilized where they are paid only after they finish the task, so as to reduce the risk of defaults from employees and when the entrepreneurs experience liquidity constraints. If there are no differences, it means that when looking at the batik company's financial documentation that has just been pioneered or after having been in operation for more than 10 years. They just record their sales transactions in a simple manner through sales slips. There are no company profit and loss reports. The indicator of whether a company is successful is very simple, as long as they can still buy raw materials and can fulfill their household needs. These female entrepreneurs admit they are not yet able to separate their household finances with their business finances.

Related to fulfilling funds, there are two ways to obtain funds. The first one is by starting to provide funds, and then the funds are used for a business. After the business starts, if the funds are still lacking, they will then borrow money from another institution to expand the business capacity. The stages are funds-business-funds-business.

> "I started the business by using funds from my husband and parents. Then after running the business for 2 years, I then borrowed KUR funds from BRI in the amount of 20 million rupiah. From these funds, I could buy more raw materials and I could produce and sell more batik." (Mrs. Muflikah, 33 years old, handmade batik entrepreneur of Lasem).

The second is to bring in funds through a business that is being run. There is an interesting aspect in the Gewawang case. In their viewpoint, those funds are a result not a cause. A funding offer will surface when the creditor sees entrepreneurial consistency and stable business potential. Therefore, they are not overly concerned with funds when a business starts out. The most important thing is a strong desire to

ISBN: 978-602-53420-4-2

carry out the business, possess, and/or work in coordination with those who have batik competency.

After having a strong desire to begin a business, in the start-up stage, they will use their own financial capital in the form of employee results. Of course, these funds are insufficient. Then they try to borrow IDR 5 million from the bank. Through the funding of IDR 5 million, there is a greater understanding about the business' potential. Related to this, there is a desire, then they have funds, and from these funds, they apply it in their businesses, which will facilitate entrepreneurs to develop their businesses by adding to their financial capital. The stages start from a desire to run a business-funds-business-funds-business-funds-business.

> "If you only have IDR. 5 million, it seems it is enough to start. Oh, there is great potential in the batik business. To be able to take advantage of the opportunities, a business has to be expanded. To expand it, you have to add to the financial capital by borrowing from the bank (KUR)." (Mrs. Nurjanah, 27 years old, batik entrepreneur of Trisula Lasem)

> "At first, it started from my hobby to do batik. Then it was turned into a business continuously. There were no special funds provided for it. When I started the business, I used personal funds in the amount of IDR. 2 million to buy batik instruments (pan, bucket, stove, etc.). In 2013, I took a credit of IDR. 5 million from KUR BRI to purchase raw materials and pay for the workforce. The guarantee was only the Finance and Building Advisory Body (BPKB), because I did not have a commerce business permit (SIUP) yet. The time period was 1 year with installments of IDR. 480 thousand/month. The daily wages ranged from IDR. 20-30 thousand, depending on the workers' abilities. The wholesale wages ranged from IDR. 50-75 thousand, depending on the level of difficulty of the motif. The wages were only given after the goods were completed. Then in 2014, I took credit again in the amount of IDR. 10 million to make a special batik work room. The funding source was from KUR BRI, with a 1-year period and installments of IDR. 898 thousand/month." (Miss Umi, 27 years old, batik entrepreneur of Gemawang)

There are at least four important things in developing the batik business. First, there are the entrepreneur, production technique, marketing, and funding. A desire to advance, enjoying one's job, being brave to try, being creative, being innovative, and wanting to learn are important things in running a business. Second is the production aspect that is characteristic in a design or pattern that follows a trend as well as the appropriate coloring technique to develop the batik business to become better. The marketing aspect also needs to be considered. In general, a strategy used is besides selling from home, sales are done by joining exhibitions, whether they are done by oneself or given to a friend as well as through cheaper social media. They do not all use information technology (for instance, through the Web) in marketing their products. The final aspect is funding. There are two aspects in funding, which are funds as a cause, meaning funds become a production factor. If there are funds available, then the business comes to fruition and runs successfully.

On another side, funds are considered as results. Funds can have a meaning as a consequence of a business that is already in operation. When the business is able to sustain itself and keep operating, then fund offers will actually come. Funds follow business development. This section presents an objective elaboration of the research findings that relate to the research objectives and based on the methodologies applied, as well as the discussion and analysis of said findings. Findings of the research should be arranged in a logical sequence. Meanwhile, the discussion section interprets and describes the significance of the findings in light of what was already known about the research problem being investigated, and to explain any new understanding or insights that emerged as a result of the current study. The discussion will always connect to the introduction by way of the research questions and the reviewed literature.

CONCLUSION

To develop and maintain the business, there are several ways to do, the first one is letting it flow, just doing the business every day. By doing that, there will be ways to solve problems in business and how to develop the business. Next, is by trial and error, begins by designing batik, coloring, and also marketing so that the right business patterns will be obtained. With enthusiasm, optimism, willing to keep going, proactive, creative and innovative, there will be solutions for every problem faced so that the business can be developed and maintained. The learning will be obtained from the entrepreneurial spirit. Entrepreneurial spirit causes learning, learning causes creativity and innovation, and this can then improve business to be better, the market expands, and also the profit increases.

Based on these findings, it needs to be re-explored about masculinity in entrepreneurship, is that really generally accepted? or depending on the field of business? That could be the direction of future research.

This research produced a proposition in the form of a financing model for small and medium enterprises. In the future, empirical testing needs to be conducted, in order that a model generalization can be obtained. There are two funding perspectives, which are supply and demand. As of now, there is no known in-depth study of this issue. Besides that, this research also suggests to measure business performance by inputting entrepreneurial indicators by measuring their knowledge, attitude, expertise, attitude, and welfare.

When doing research about gender entrepreneurship, it needs to be differentiated whether women entrepreneurs have families or not. When the women entrepreneurs have families, in reviewing their business activities and performance, it is also necessary to pay attention to the responsibilities that are faced by the women. Women entrepreneurs will certainly have to adjust between their family and entrepreneur roles. They will not take high business opportunities that can disrupt their family harmony. Based on the expectancy theory, a person will be interested in something when what is expected and the actual condition are different. The higher one’s expectation is, the higher the activities that are conducted [19]. However, what happens to women entrepreneurs who have families is related to how they can support and play a role in their families, not just to reach a high social status, moreover to obtain power. When women entrepreneurs delve into the business world, they will harmonize their roles and activities, so that they do not aspire to have high or remarkable results. They will search for the optimum condition in an effort to acquire prosperity. The expectancy theory seems to be too idealistic, because only certain individuals can view a high correlation between work performance and appreciation [20]. A substantive theory which can be suggested is the optimum expectation theory. Of course, these findings still need to be further explored by doing follow-up research.

REFERENCES

[1] Fagenson, E.A., *Personal value systems of men and women entrepreneurs versus managers.* Journal of Business Venturing, 1993. **8**(5): p. 409-430.

[2] Neider, L., *A preliminary investigation of female entrepreneurs in Florida.* Journal of small business management, 1987. **25**(3): p. 22.

[3] Sexton, D.L. and N. Bowman-Upton, *Female and male entrepreneurs: Psychological characteristics and their role in gender-related discrimination.* Journal of business venturing, 1990. **5**(1): p. 29-36.

[4] Zapalska, A., *A profile of woman entrepreneurs and enterprises in Poland.* Journal of Small Business Management, 1997. **35**(4): p. 76.

[5] Buttner, E.H. and D.P. Moore, *Women's organizational exodus to entrepreneurship: self-reported motivations and correlates with success.* Journal of small business management, 1997. **35**: p. 34-46.

[6] Fischer, E.M., A.R. Reuber, and L.S. Dyke, *A theoretical overview and extension of research on sex, gender, and entrepreneurship.* Journal of business venturing, 1993. **8**(2): p. 151-168.

[7] M. Carter, N. and K. R. Allen, *Size determinants of women-owned businesses: choice or barriers to resources?* Entrepreneurship & Regional Development, 1997. **9**(3): p. 211-220.

[8] Kourilsky, M.L. and W.B. Walstad, *Entrepreneurship and female youth: Knowledge, attitudes, gender differences, and educational practices.* Journal of Business venturing, 1998. **13**(1): p. 77-88.

[9] Masters, R. and R. Meier, *Sex differences and risk-taking propensity of entrepreneurs.* Journal of small business management, 1988. **26**(1): p. 31.

[10] Bakan, D., *The duality of human existence: An essay on psychology and religion.* 1966.

[11] Heilman, M.E., *Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder.* Journal of social issues, 2001. **57**(4): p. 657-674.

[12] Gupta, V.K., D.B. Turban, and N.M. Bhawe, *The Effect of Gender Stereotype Activation on Entrepreneurial Intentions.* Journal of Applied Psychology, 2008. **93**(5): p. 1053.

[13] Schein, V.E., *The relationship between sex role stereotypes and requisite management characteristics.* Journal of applied psychology, 1973. **57**(2): p. 95.

[14] Brenner, O., J. Tomkiewicz, and V.E. Schein, *The relationship between sex role stereotypes and requisite management characteristics revisited.* Academy of management journal, 1989. **32**(3): p. 662-669.

[15] Powell, G.N. and D.A. Butterfield, *The" Good Manager" Did Androgyny Fare Better in the 1980s?* Group & Organization Management, 1989. **14**(2): p. 216-233.

[16] Martell, R.F., et al., *Sex Stereotyping in the Executive Suite:" Much Ado About Something".* Journal of Social Behavior and Personality, 1998. **13**(1): p. 127-138.

[17] Ahl, H. and T. Nelson, *Moving forward: institutional perspectives on gender and entrepreneurship.* International Journal of Gender and Entrepreneurship, 2010. **2**(1): p. 5-9.

[18] Gartner, W.B., *ENTER: Entrepreneurial Narrative Theory Ethnomethodology and Reflexivity: An Issue about The Republic of Tea.* 2010.

[19] Vroom, V.H., *On the origins of expectancy theory.* Great minds in management: The process of theory development, 2005: p. 239-258.

[20] Parijat, P. and S. Bagga, *Victor Vroom's expectancy theory of motivation–An evaluation.* International Research Journal of Business and Management (IRJBM), 2014. **7**(9): p. 1-8.

ISBN: 978-602-53420-4-2

THE MODEL OF CUSTOMER SATISFACTION IN TERMS OF SERVICE QUALITY

I Ketut Sirna[1], Gusti Ngurah Joko Adinegara[2]

[1,2] Faculty of Economics and Humanities, Universitas Dhyana Pura

ketutsirna@yahoo.co.id

ABSTRACT

The perception of customer satisfaction in terms of services quality in the hospital of Balimed is an attempt to take advice customer and give the best service, which is translated into services aspect, they are tangible, reliability, responsiveness, assurance, emphaty as a policy and management initiatives to meet the needs, desires, and demand of customer. ***The purpose*** *of this research is to increase service quality as a customer satisfaction in terms of service quality with the* ***methods*** *Total Quality Service (TQS). The technique of this study use the total sample is 99 respondents. While data analysis on this research uses multiple linear regression analysis by using the test and test f, t as well as the coeffcients determination to know the variable influence, x which is the total quality service (tangible, reliability, responsiveness, assurance, emphaty) on variables y, namely customer satisfaction.* ***The results*** *of a customer satisfaction in terms of service quality indicated in partial, tangible (X_1) of -0.003, reliability (X_2) of 0.144, responsiveness (X_3) to 0.403, assurance (X_4) of-0.034, empathy (X_5) of 0.095 On customer satisfaction (Y) at the hospital Balimed and simultaneously influence to service quality (tangible, reliability, responsiveness, assurance, empathy) is $Y=0.044-0.003X_1+0.144X_2+0.403X_3-0.034X_4+0.095X_5$ to services quality at the hospital Balimed. This research is a the model of customer satisfaction in terms of service quality (tangible, reliability, responsiveness, assurance, empathy) can be implemented well at the hospital of Balimed.*

Keywords: *Service model, customer satisfaction, hospital, TQS*

INTRODUCTION

The development of private hospitals with national and international standards in Bali is increasing, more than 10 hospitals have the potential to become competitors. Service is one of the choices calculated by the customer, even though the hospital product is the same. But on this occasion, an effort to improve the quality of service becomes a necessity. One way is to listen to customer input and provide the best service, then it will be translated into aspects of *Tangible, Reliability, Responsiveness, Assurance, Empathy* which is a policy and management initiative to meet the needs, desires and customer request.

This study is to improve service quality as a model of customer satisfaction in terms of service using the *Total Quality Service (TQS)* method [9], the hospital industry as a pure social institution based on the philosophy of *philanthropy* may be experiencing a phase of decline. But the hospital industry as a socioeconomic institution is in a growth phase. Therefore, the hospital is expected to survive and maintain the health of the organization by striving for at least a breakeven of costs *(cost recovery)* and even it is expected that there are benefits obtained by the hospital. To support all efforts of the hospital must have a strong *brand*. Hospitals must be able to maintain customer loyalty so *brand loyalty* is formed as a differentiating factor in hospital services from competitive offers, so that hospitals are not inferior in competition [8].

Inpatient Statistics serves to display statistical data of inpatient visits based on certain filters in detail. From this report can be seen the number of visits from old and new patient types, gender, and patients per payment. The statistical data that appears comes from the registration that occurs on the Inpatient Registration menu.

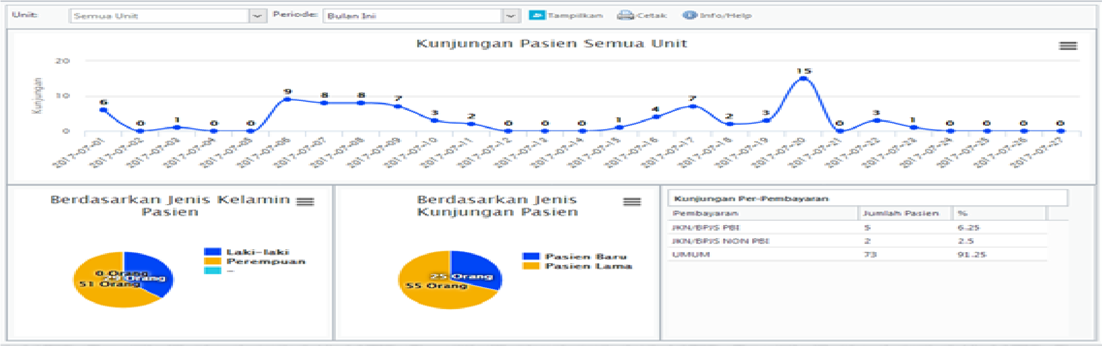


Figure 1. Visits of Returning and New Patients in 2017
Source: Balimed Hospital Registration Data for 2017

From the above above, there are an average of 80 old and new patients who are staying overnight per month, but if calculated per year there are an average of 960 hospital nurses per year. So of this amount, of course the number of competitors owned by the Hospital, alongside the product, service which is a very dominant factor in determining customer satisfaction and loyalty, in increasing revenue and business development of the hospital company, therefore "Customer Satisfaction Model in terms of *Service Quality* is very important to be improved now and in the future by Balimed Hospital Denpasar Bali.

In Quality it is usually always a consideration of customers in determining their place to vacation and spend time [1]. Where according to the customers good quality will support them to feel comfortable and safe doing inpatient care. That quality is an elusive goal, because the expectations of consumers will always change [8]. Quality as a match for use (*fitness for use*) [8]. While ISO-8402, quality is the totality of facilities and characteristics of a product or service that is able to satisfy the needs, expressed or implied [8].

Service is an *intangible* product from the results of reciprocal activities between service providers and service recipients through one or several activities to meet customer needs [1]. Service is an activity that provides benefits and is offered by all parties to other parties in an unrealistic form and does not cause ownership transfer, as is the case in hospitals [9].

Thus the quality of service is a responsiveness and reality of the services provided by the company. Quality of service must begin with customer needs and end with customer satisfactions. There are five indicators in determining the quality of service are: *1) tangibles, 2) releability, 3) responsiveness, 4) assurance, 5) empathy* [2].

Customer satisfaction is the main goal of marketing, when customers are satisfied with the services provided, they will most likely make other purchases and will also recommend it to family and friends about the company and its products [6].

The service model that is often used today is used as a reference in management research and marketing services for hospitals, hotels, retail businesses and others that are often called the SERVQUAL Model (short for Service Quality) [9]. This model is closely related to the customer satisfaction model based on the disconfirmation approach [9], the approach confirms that if a performance on an attribute (*attribute performance*), increases greater than expectations (*expectations*) of the attribute concerned[9].

Based on the problems above, the Balimed Hospital really considers the need to formulate the problem namely "Model of Customer Satisfaction Review of *Service Quality*". Thus Balimed Hospital Management began the process of planning, organizing, leadership, and controlling the efforts of the organization to achieve organizational goals predetermined [4].

Hospitals According to WHO (World Health Organization), hospitals are an integral part of a social and health organization with the function of providing plenary (comprehensive), healing (curative) and disease prevention (preventive) services to the public. The hospital is also a training center for health workers and a medic research center[11]. So, that the hospital is a health care institution that conducts complete individual health services that provide inpatient, outpatient and emergency services [11]. Hospitals as a service are directed at increasing access, affordability and quality of safe health services [11].

Duties and Functions The hospital has a vision and mission to provide quality and affordable health services to the community in order to improve community health status. To carry out its functions, the hospital organizes activities: a). Medical services. b). Nursing services and care. c). Medical and non-medical support services. d). Community health services and referrals. e). Education, research and development. f). General administration and finance [11].

Specifically for Inpatient Installation Service Standards, minimum service standards stipulate the types and quality of basic services which are obligatory functions of the region which are entitled to every citizen is minimal [11]. Thus this Medical Service standard can be used as a reference for hospital managers and related elements in carrying out the planning, financing and implementation of each type of service [3]. As such, the purpose of this study was to determine the Model of Customer Satisfaction Review of *Service Quality* at Balimed Hospital Denpasar Bali.

METHODS

In this study several variables can be identified, and indicator variables as follows [10]:

Table 1. Variables and Variable Indicators

No	Variable	Code	Indicator	Code
1	Tangible (*bukti langsung*) Lupiyoadi (2006;182),	X_1	a. Room arrangement	$x_{1.1}$
			b. Arrangement of the park	$x_{1.2}$
			c. Employee appearance	$x_{1.3}$
			d. Lobby arrangement	$x_{1.4}$
			e. Web display	$x_{1.5}$
2	Reliability (*keandalan*) Lupiyoadi (2006;182),	X_2	a. Service capability	$x_{2.1}$
			b. Communication skills	$x_{2.2}$
3	Responsiveness (*ketanggapan*) Lupiyoadi (2006;182),	X_3	a. Service accuracy	$x_{3.1}$
			b. Service speed	$x_{3.2}$
			c. Willingness to serve	$x_{3.3}$
4	Assurance (*jaminan*) Lupiyoadi (2006;182)	X_4	a. Room security	$x_{4.1}$
			b. *Food and beverage hygiene*	$x_{4.2}$
5	Empathy (*kepedulian*) Lupiyoadi (2006;182),	X_5	a. Caring for guests	$x_{5.1}$
			b. Alertness to serve guests	$x_{5.2}$
6	Customer Satisfaction Tjiptono (2000: 350)	Y	a. Overall Guest Satisfaction	y_1
			b. Customer loyalty	y_2
			c. Comfort of Guests Who Stay	y_3

ISBN: 978-602-53420-4-2

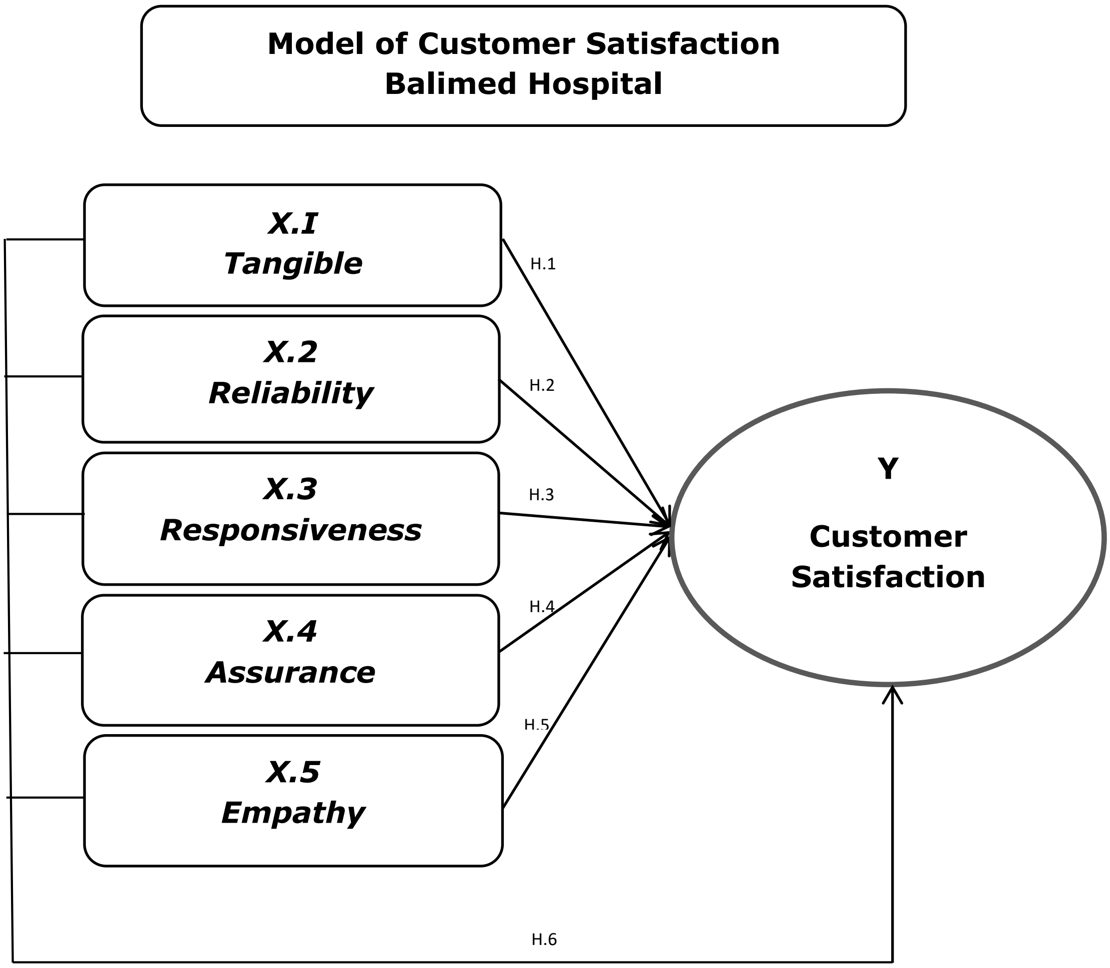


Figure 2. Framework of Customer Satisfaction Model
Source: Zeithaml et al (1990)

FINDINGS AND DISCUSSIONS

The entire data analysis process uses SPSS (*Statistical Package for Social Science*) 17 computer calculations for *windows*. The analysis technique used to determine the Customer Satisfaction Model at Balimed Hospital is multiple linear regression, while to determine the strength of the variable relationship using multiple correlations and to test the hypothesis used t-test and f-test.

Table 2. The results analysis of the customer satisfaction model

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.044	.138		.321	.749		
x1	-.003	.072	-.003	-.045	.964	.218	4.580
x2	.144	.059	.148	2.426	.017	.253	3.951
x3	.403	.068	.427	5.915	.000	.181	5.534
x4	-.034	.095	-.034	-.358	.721	.107	9.360
x5	.095	.080	.112	1.181	.241	.104	9.588

ISBN: 978-602-53420-4-2

Based on table 3.1 obtained the multiple linear regression equation as follows:

Y = 0,044-0,003X1+0,144X2+0,403X3 -0,034X4+0,095X5

The multiple linear regression equation can be explained as follows: □=0,044 means that if the value of the tangible variable, reliability, responsiveness, assurance and empathy are equal to zero or do not change, guest satisfaction will have a value of 0.044.

b1=-0,003 means that every increase in the tangible variable (X1) at Balimed Hospital, any additional tangible (X1) of 1 unit will be accompanied by an increase in guest satisfaction by -0.003 assuming that reliability (X2), responsiveness (X3), assurance (X4), and empathy (X5), are the same as constant or unchanged.

b2=0,144 means that every increase in the reliability variable (X2) then each increase in reliability (X2) by 1 unit will be accompanied by an increase in guest satisfaction by 0.144 with the assumption that tangible (X1), responsiveness (X3), assurance (X4), and empathy (X5), are the same as constant or unchanged.

b3= 0,403 means that every increase in the variable responsiveness (X3) then each additional responsiveness (X3) of 1 unit will be accompanied by an increase in guest satisfaction by 0.403 with the assumption that tangible (X1), reliability (X2), assurance (X4), and empathy (X5), are the same as constant or unchanged.

b4= -0,034 means that every increase in the assurance variable (X4) then each additional assurance (X4) of 1 unit will be accompanied by an increase in guest satisfaction by -0,034 assuming tangible (X1), reliability (X2), responsiveness (X3) and empathy (X5), are the same as constant or unchanged.

b5= 0,095 means that each increase in the empathy variable (X5) then each increase in empathy (X5) of 1 unit will be accompanied by an increase in guest satisfaction by 0.095 with the assumption that tangible (X1), reliability (X2), responsiveness (X3), and assurance (X4), are the same as constant or unchanged.

Based on the multiple linear regression equation, it shows that direct evidence, reliability, responsiveness, assurance, empathy, both influence the satisfaction of inpatients at Balimed Hospital.

CONCLUSION

From the results of this study is that there is an influence between the qualities of service on the satisfaction of customers who are hospitalized at Balimed Hospital. This is evidenced by the results of this research as follows: There is a partial effect between *tangible* on customer satisfaction $b_1(X_1)$ =-0.003, There is a partial effect between *reliability* on customer satisfaction b_2X_2=0.144, There is a partial effect between *responsiveness* on customer satisfaction b_3X_3= 0,403, There is a partial effect between *assurance* on customer satisfaction b_4X_4= -0,034, There is a partial effect between *empathy* on *customer* satisfaction b_5X_5= 0,095, There is a simultaneous influence between service quality (*tangible, reliability, responsiveness, assurance, and empathy*) on customer satisfaction $Y=0,044-0,003X_1+0,144X_2+0,403X_3-0,034X_4+0,095X_5$. in the Balimed Hospital.

REFERENCES

[1] Afrizawati, 2012. "Analisis Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan Pada Hotel Arista Palembang". Jurnal Orasi Bisnis Edisi ke VII Mei 2012

[2] Agustini, 2011. "Pengaruh Dimensi Kualitas Jasa Pelayanan Terhadap Tingkat Kepuasan Tamu Di Kunyit Bali Restaurant Pada Hotel Santika Premiere Beach Resort bali".

[3] Dorothea Wahu Ariani, 2004. *Pengendalian Kualitas Statistik (Pendekatan Kuantitatif dalam Manajemen Kualitas)*. Penerbit CV Andi Offset : Yogyakarta.

[4] Handoko, Dr. T. Hani, . 2008. Manajemen. Yogyakarta: BPFE-Yogyakarta

[5] Kotler, Philip. 2002. Manajemen Pemasaran di Indonesia: Analisis, Perencanaan, Implementasi dan Pengendalian. Salemba Empat. Jakarta.
[6] Ratminto, dan Atik Septi Winarsih. 2005. Manajemen Pelayanan. Jakarta: Pustaka Pelajar
[7] Wijaya, Tony.2011. Manajemen Kualitas Jasa. Jakarta: Indeks
[8] Tjiptono, Fandy. 2001. Strategi Pemasaran. Edisi Pertama. Andi Ofset.Yogyakarta.
[9] Tjiptono, Fandy. 2004. Manajemen Jasa. Yogyakarta: Andi.
[10] Utama, Rai & Mahadewi., 2014, Metodologi Penelitian Pariwisata dan Perhotelan, Yogyakarta:CV. Andi Offset.
[11] Undang-Undang No. 44 Tahun 2009. Tentang Rumah Sakit, Biro Hukum Departemen Kesehatan Republik Indonesia, Jakarta.

THE EFFECT OF 5E LEARNING CYCLE MODEL ON PROBLEM SOLVING ABILITY IN TERMS OF STUDENT NUMERICAL ABILITY

Advent Krisna Setyawan Plaikoil[1], Ni Made Pujani[2], I Nyoman Tika[3]
[1,2,3] Universitas Pendidikan Ganesha
advent.plaikoil@gmail.com

ABSTRACT

Research objectives: 1) knowing differences in students' problem solving abilities based on learning model and numerical abilities; 2) knowing interactive influence between learning models and numerical abilities' on problem solving abilities. Learning model dimensions: 5E learning cycle and direct instruction. Type of research: quasi-experimental pretest posttest non-equivalent control group design. Research population: 287 students of SMAN 1 Kediri-Tabanan. Each experimental and control group gained two classes by simple random sampling technique. In terms of students' numerical abilities, 5E learning cycle applied in experimental group and direct instruction in control group. Data collected by problem solving ability tests. Data analyzed by descriptive analysis. Hypothesis tested by anacova technique. Descriptive analysis result: 1) physics problem solving abilitys' average score of experimental group higher than control group; 2) average score of physics problem solving abilities in high numerical abilitys' group higher than low numerical abilities' group; 3) physics problem solving abilitys' highest average score obtained by high numerical abilitys' experimental class group, and the lowest obtained by low numerical abilitys' control group. Hypothesis test result: 1) there are differences in students' problem solving abilities based on learning model and numerical abilities; 2) there is an interactive influence between learning models and numerical abilities on students' problem solving abilities.

Keywords*: 5E learning cycle model, direct instruction model, numerical ability, problem solving ability*

INTRODUCTION

Development of quality of human resources through education must be done. Various attempts have been made by the government to improve the quality of science education in general and the quality of physics education in particular. These efforts include (1) improving the quality of teaching staff through training, seminars and upgrading of physics teachers, (2) improvement and fulfillment of school facilities, and (3) conducting curriculum improvements (Jayanti & Hidayati, 2015).

Efforts to improve the quality of education, including curriculum changes that have been made so far, are still not satisfactory. There are indicators that show the low quality of education in Indonesia as follows. Based on the results of the TIMSS study (Trends in International Mathematics and Science Study) shows Indonesian students are ranked very low in the ability to (1) understand complex information, (2) theory, analysis and problem solving, (3) use of tools, procedures and solving problems and (4) conducting investigations (Winardi & Wardono, 2017).

The low quality of education such as the explanation above is caused by a lack of knowledge of how to implement the learning process. The learning process is still based on the understanding that knowledge can be transferred in full from the teacher's mind to the student's mind (Nisrina, et al., 2016). Learning that takes place in class is still teacher centered (Purwanto & Siregar, 2016). The learning process in class should take place student centered. Students must be able to construct knowledge in their own minds (Yuhasriati, 2012).

The low quality of education is also due to the physics learning that has been taking place so far more oriented to textbooks and curriculum achievement using the lecture method (Purwanto & Siregar, 2016) (Aprilia, et al., 2017). The learning process using the lecture method without linking it with natural phenomena causes students have no space to develop creativity, the ability to conduct experiments, hypothesize and the process skills that students should have become undeveloped. Physics learning feels dry because it is not associated with the context of students' daily lives (Muchsin, et al., 2015). In addition, learning with the lecture method also less stimulates students to be able to apply and practice their abilities in solving physics problems.

Problem solving ability is an important competency that must be possessed by students, especially in learning physics because according to Anderson (2009), problem solving ability is an important life skill that involves various processes including analyzing, interpreting, reasoning, predicting, evaluating and reflecting. Matlin (in Cahyani & Setyawati, 2016) also stated that problem solving is needed when we want to achieve certain goals but the way to solve them is still not clear, so in order to solve these problems, students are expected to understand the process of solving problems and become skilled in choosing and identifying conditions and relevant concepts, look for generalizations, formulate a plan for completion, and organize their previous owned skills.

Problem solving activities in learning physics, in addition to requiring mastery of physics concepts, it is also necessary to master mathematical concepts and skills as a result of applying a quantitative approach through the use of formulas. This is the reason why most students have difficulty solving physics problems because it is related to mathematical skills, which in learning physics at the high school level almost entirely using mathematical calculations. Therefore it can be said that numerical ability influence students' physics problem solving abilities. In relation to learn physics, the numerical ability possessed by students will help them understand and analyze every physics problem so that students will not have difficulty in learning physics. The ability possessed by students to solve physics problems itself will certainly be different if viewed from the level of numerical ability that they have, so that in order to be observed the difference, the numerical ability of students is classified into two categories, that was students with high numerical ability and students with low numerical ability.

In order to know the difference in students' problem solving abilities in terms of their numerical ability classification, so what is tested in this research was the learning model, which is the learning model that is 5E learning cycle model. The 5E Learning Cycle Model developed by Bybee et al. (2006) is a form of constructivism philosophy about learning which stated that knowledge is built in the minds of learners. This model is then elaborated into inquiry, thus indirectly the benefits of the inquiry approach in learning can be obtained through the application of the 5E Learning Cycle model. Sund & Trowbridge (in Tanti, 2012) stated that the benefits of inquiry approach in the 5E Learning Cycle model are as follows 1) Student centered learning process; 2) The learning process through inquiry forms and develops self-concepts; 3) The level of expectation increases; 4) Learning through inquiry process develops individual ability skills; 5) Prevent students from traditional learning methods that tend to memorize; 6) give time for students to assimilate and accommodate information. The 5E Learning Cycle model contains five learning phases which include the Engagement, Exploration, Explanation, Elaboration and Evaluation phases.

The research was conducted which is aimed at 1) Analyzing differences in problem solving abilities between groups of students whose learning by using the 5E learning cycle model and groups of students whose learning by using the direct instruction model; 2) Analyze differences in problem solving abilities between groups of students with high numerical ability and groups of students with low numerical ability; and 3) Analyzing the interactive effect between learning models (5E learning cycle models and direct instruction models) and students 'numerical abilities (high numerical abilities and low numerical abilities) on students' problem solving abilities.

METHODS

This is a quasi-experimental research with pretest posttest non-equivalent control group design. The full randomized process was not able to applied in this research. The population number on this research were 287 students of grade XI on second semester in SMA Negeri 1 Kediri-Tabanan in 2017/2018 academic year.

Simple random sampling was used to gained the samples, which was trough two stages. First stage was choosing four parallel classes from all parallel classes in the population by lottery. Second stage was taken randomly the four classes that have been selected by two classes receiving treatment of 5E learning cycle model (experimental group) and also two other sample classes receiving direct instruction model treatments (control groups).

Independent variables in this research were learning models and numerical abilities. The learning model variable has two dimensions, that were (a) 5E learning cycle model and (b) direct instruction model. The numerical ability variable also has two dimensions, that were (a) high numerical ability, and (b) low numerical ability. Covariate variables that was used as a statistical control were initial problem solving abilities. The dependent variable was the problem solving abilities. Problem solving ability tests were used to capture students' problem solving abilities about physical concepts before and after learning process. The problem solving ability test was in form of essay questions test which was given twice, that was before the learning process or as a pre-test and after the learning process or as a post-test.

Data collected in this research were problem solving ability and numerical ability. Problem-solving ability test was in form of essay questions consist of 5 items with an internal consistency index item (r) ranging from -0,771 to 0.968 with test reliability index of Alpha Cronbach 0.910 which is very highly qualified. The numerical ability test consists of 30 multiple choice questions with an internal consistency index item (r) ranging from -0,053 to. 0.714 with test reliability index of Alpha Cronbach 0.727 which highly qualified. Data were analyzed descriptively by using anacova. Descriptive analysis was used to describe the average score and standard deviation of students' physics problem solving abilities. Anacova was used on testing the research hypothesis. Before testing the hypotheses, prerequisite tests were performed which include data normality tests, homogeneity variance tests, linearity tests and simple linear regression tests. Kolmogorov-Smirnov and Shapiro-Wilk statistics was used to do the normality test of data distribution, while testing for homogeneity of variance between groups was using the Leven's Test of Equality of Error Variance, Linearity Test, and simple linear regression test. All hypothesis testing was carried out at a significance level of 0.05.

FINDINGS AND DISCUSSIONS

Data obtained from the results of the research were data on students' physics problem solving abilities. Based on the research, it was found that based on the learning model group, that were in the group of students whose learn with 5E learning cycle model there were 71.43% of score of the students' physics problem solving abilities that were very well qualified, and 28.57% were well qualified, while in the group of students whose learn with the direct instruction model there were 57.14% of score of students' physics problem solving abilities that were very well qualified, 35.71% were well qualified, and 7.14% were sufficiently qualified.

The data of students' physics problem solving abilities based on the numerical ability group found the results that in group of students with high numerical ability there were 74.29% of score of physics problem solving abilities that were very well qualified, 24.29% were well qualified, and 1.43% were sufficiently qualified, while in group of students with low numerical ability, it was found that there were 54.29% of scores of students' physics problem solving abilities that were very well qualified, 40.00% were well qualified, and 5.71% were sufficiently qualified.

Based on the average score of students' physics problem solving abilities found in learning model group that the score in the group of students whose learn with 5E learning cycle model that is equal to 52.37 with 5.76 of the standard deviation, which is greater than the average score in group of students whose learn with the direct instruction model which was 48.91 with 6.68 of the standard deviation. In the numerical ability group, the average score of physics problem solving ability for group of students with high numerical ability was 52.40 with 5.99 of the standard deviation, which is greater than the group of students with low numerical ability that the average score of physics problem solving ability was 48.89 with 6.45 of the standard deviation.

Data on average value of problem solving ability was also found based on stages of problem solving according to the type of polya, as presented in form of a percentage as shown in Table 1.

Table 1. Persentage of Students' Problem Solving Ability Average Score Based on Polya's Type Stage of Problem Solving Skills

GROUP	POLYA'S TYPE STAGE OF PROBLEM SOLVING SKILLS							
	I		II		III		IV	
	MEAN (%)	SD	MEAN (%)	SD	MEAN (%)	SD	MEAN (%)	SD
5E with High NA	85,71	1,42	95,57	1,43	89,14	2,26	54,48	2,31
5E with Low NA	82,86	1,32	89,43	2,72	85,00	2,24	52,57	1,78
DI with High NA	82,86	1,36	91,14	2,69	85,14	2,53	50,48	1,88
DI with Low NA	77,71	1,24	81,86	3,42	76,29	2,27	48,76	1,89
5E Model	**84,29**	**1,37**	**92,50**	**2,24**	**87,07**	**2,27**	**53,52**	**2,05**
DI Model	**80,29**	**1,32**	**86,50**	**3,20**	**80,71**	**2,54**	**49,62**	**1,88**
High NA	**84,29**	**1,39**	**93,36**	**2,19**	**87,14**	**2,41**	**52,48**	**2,11**
Low NA	**80,29**	**1,30**	**85,64**	**3,16**	**80,64**	**2,40**	**50,67**	**1,84**

Based on the table, it can be clearly seen that the percentage of average score of problem solving ability of the 5E learning cycle model group is always greater than the percentage of average score of problem solving ability of direct isntruction model group at each stage of Polya's problem solving type. Based on the numerical ability in accordance with the table above, it is clearly stated that the average score of problem solving ability of groups of students with high numerical ability is also always greater than the average score of problem solving abilities of groups of students with low numerical ability at each stage of Polya's problem solving type.

The result of the prerequisite tests were found that all data were normally distributed. Homogeneity test of variance which conducted both based on group of learning model and based on numerical ability group shows that the data is homogeneous. Linearity test wwhich conducted to determine the linearity of relationship between covariate variable data (initial problem solving ability) and the dependent variable data (problem solving ability) indicates there were a linear relationship. The simple linear regression test that was carried out produced a regression equation that were $\hat{Y} = 36{,}598 + 0{,}742\,\hat{X}$ which was used to predict the value of students' physics problem solving abilities.

ISBN: 978-602-53420-4-2

Hypothesis testing was performed after the fulfillment of the requirements on all of the prerequisite tests. Hypothesis test results can be seen in Table 2.

Table 2. ANACOVA Result with Factorial 2 × 2

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4277.967[a]	4	1069,492	95,606	0,000
Intercept	23448,248	1	23448,248	2096,122	0,000
*Initial PSA	3399,938	1	3399,938	303,933	0,000
**Learning Model (LM)	119,026	1	119,026	10,640	0,001
***Numerical Ability (NA)	84,472	1	84,472	7,551	0,007
LM * NA	54,423	1	54,423	4,865	0,029
Error	1510,176	135	11,186		
Total	364846,000	140			
Corrected Total	5788,143	139			

Based on the results of hypotheses testing from the table above it can be found that: 1) the covariate variable (initial problem solving ability) affects the dependent variable (problem solving ability) with an F value of 303.933 and a significance value of 0.000 ($p < 0.05$). 2) The learning model as an independent variable affects the dependent variable (problem solving ability) with an F value of 10.640 and a significance value of 0.001 ($p < 0.05$), which was then carried out the post hoc tests (LSD test) with the mean difference for the learning model group that was 1,868 which was greater compared to the LSD test rejection limit (1.12). 3) The numerical ability as an independent variable influences the dependent variable (problem solving ability) with an F value of 7,551 and a significance value of 0.007 ($p < 0.05$), which is then carried out the post hoc tests (LSD test) with the mean difference in numerical ability group were 1,583 which was greater than the LSD test rejection limit (1.12). 4) There is an interaction effect between the independent variable (learning model and numerical ability) towards the dependent variable (problem solving ability) with an F value of 4.865 and a significance value of 0.029 ($p < 0.05$).

Based on this explanation, the use of the 5E learning cycle model in an effort to obtain achievement and practice the ability to solve physics problems in students shows better results compared to the use of the direct instruction learning model. The 5E learning cycle model provides opportunities for students to learn new knowledge so that it is embedded in students as a concept. This model also increases student curiosity in every learning activity that is proven during the learning activities carried out, groups of students who are taught with the 5E learning cycle model are always actively involved. The 5E learning cycle model also has a target that is for students to be able to find and associate new knowledge with the knowledge that they already have. Positive relationship between the application of 5E learning cycle model with student activity, availability of opportunity to optimize learning and develop reasoning ability in students, availability of opportunity to build concepts to solve problems, creative and independent thinking skills, increasing in academic achievement, and creating a fun learning atmosphere causes the application of 5E learning cycle model were able to improve students' ability to solve problems.

The findings of the research show that the score of students' physics problem solving ability for the group of students with high numerical ability is better than the score of students’ physics problem solving ability for the group of students with low numerical ability. Good problem solving skills require mental and intellectual process skills to find a problem and solve it based on accurate data and information, while numerical ability is an intelligence that enables to achieve or master the problem solving ability, because in numerical ability directs the individual in mastery good mental and intellectual process skills. Based on this, it can be stated that the better or higher the numerical ability possessed by students will also have an impact on the better or higher problem solving abilities possessed by individual students.

Learning activities using the 5E learning cycle model which consist of 5 (five) stages provide an opportunity for students to be able to practice their previous skills so the students will have a good mental and intellectual process skills in an effort to solve problems. The application of 5E learning cycle model is also supported by numerical abilities that possessed by students in an effort to solve problems. Students who have good numerical ability mean that these students have an organized way of thinking and are good at doing things and solving problems.

CONCLUSION

Based on the results of hypothesis testing and discussion, the following conclusions can be drawn.

Firstly, there are differences in problem solving abilities between groups of students who learn by using the 5E learning cycle model and groups of students who learn by using the direct instruction model, which is indicated by the meaning of post hoc test that the mean difference in learning model groups (1,868) is greater than the rejection limit of LSD test (1.12).

Secondly, there is a difference in problem solving abilities between groups of students with high numerical ability and groups of students with low numerical ability, which is also indicated by the meaning of post hoc test that the mean difference of numerical ability groups (1,583) is greater than the rejection limit of LSD test (1.12).

Finally, there is an interactive influence between the learning model (5E learning cycle model and direct instruction model) and the numerical ability of students (high numerical ability and low numerical ability) on students' problem solving abilities, as indicated by the results of hypothesis testing with an F value of 4.865 with significance value of 0.029 ($p < 0.05$).

REFERENCES

[1] Anderson, J. 2009. *Mathematics curriculum development and the role of problem solving*. Paper presented at ACSA Conference, Sydney. Retrieved from http://www.acsa.edu.au/pages/images/judy anderson - mathematics curriculum development.pdf

[2] Aprilia, T., Sunardi, & Djono. 2017. *Pemanfaatan media buku digital berbasis kontekstual dalam pembelajaran ipa*. Paper presented at Pemanfaatan Smartphone untuk Literasi Produktif Menjadi Guru Hebat dengan Smartphone, Surakarta, Jawa Tengah. Retrieved from https://media.neliti.com/media/publications/172194-ID-pemanfaatan-media-buku-digital-berbasis.pdf

[3] Bybee, R. W., Taylor, J. A., Gardner, A., Scotter, P. Van, Powell, J. C., Westbrook, A., & Landes, N. 2006. *The BSCS 5E Instructional Model: Origins, Effectiveness, and Applications*. BSCS. Colorado. https://doi.org/10.1017/CBO9781107415324.004

[4] Cahyani, H & Setyawati, R. W. 2016. *Pentingnya peningkatan kemampuan pemecahan masalah melalui pbl untuk mempersiapkan generasi unggul menghadapi mea*. Presented at Seminar Nasional Matematika, *10*(1), 151–160. https://doi.org/10.1074/mcp.M110.000687

[5] Jayanti, F & Hidayati. 2015. 'Penerapan strategi heuristik pada pembelajaran fisika terhadap hasil belajar fisika siswa di kelas x sman 9 padang'. *Jurnal Riset Fisika Edukasi Dan Sains*, vol. 1, no. 2, pp. 61–70.

<http://download.portalgaruda.org/article.php?article=470467&val=8518&title=PENERAPAN STRATEGI HEURISTIK PADA PEMBELAJARAN FISIKA TERHADAP HASIL BELAJAR FISIKA SISWA DI KELAS X SMAN 9 PADANG>

[6] Muchsin, Sutikno & Masturi. 2015. 'Bahan ajar fisika dengan pendekatan problem based learning'. *Prosiding Seminar Nasional Fisika (E-Journal) SNF 2015,* vol. IV, pp. 173–178. <http://www.snf-unj.ac.id/index.php/download_file/view/479/185/>

[7] Nisrina. N, Gunawan & Harjono, A. 2016. 'Pembelajaran kooperatif dengan media virtual untuk peningkatan penguasaan konsep fluida statis siswa'. *Jurnal Pendidikan Fisika Dan Teknologi*, vol. II, no. 2, pp. 66–72. <https://doi.org/10.29303/jpft.v2i2.291>

[8] Purwanto, & Siregar, S. 2016. 'Pengaruh model problem based learning (pbl) terhadap hasil belajar siswa pada materi pokok suhu dan kalor di kelas x semester ii sma negeri 11 medan t.p. 2014/2015'. *Jurnal Ikatan Alumni Fisika Universitas Negeri Medan*, vol. 2, no. 1, pp. 25–29. <http://jurnal.unimed.ac.id/2012/index.php/jiaf/article/download/3736/3325>

[9] Tanti. 2012. 'Implementasi model pembelajaran inkuiri dalam pembelajaran fisika untuk meningkatkan hasil belajar siswa pada konsep interferensi dan difraksi gelombang'. *Edu – Physic*, vol. 3, pp. 1–11. <http://download.portalgaruda.org/article.php?article=252676&val=6812&title=Implementasi Model Pembelajaran Inkuiri dalam Pembelajaran Fisika untuk Meningkatkan Hasil Belajar Siswa pada Konsep Interferensi dan Difraksi Gelombang>

[10] Winardi, & Wardono. 2017. 'Analisis kemampuan literasi matematika melalui model missouri mathematics project dengan pendekatan open-ended'. *Unnes Journal of Mathematics Education Research*, vol. 6, no. 1, pp. 130–138. <https://www.google.co.id/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&uact=8&ved=0ahUKEwiOtfi4tvHXAhXLNI8KHVNBDyAQFgg_MAM&url=https%3A%2F%2Fjournal.unnes.ac.id%2Fsju%2Findex.php%2Fujmer%2Farticle%2Fview%2F18427%2F8908&usg=AOvVaw04k0u28TJaPouvbi05fTdL>

[11] Yuhasriati. 2012. 'Pendekatan realistik dalam pembelajaran matematika'. *Jurnal Peluang*, vol. 1, no. 1, pp. 81–87. http://www.jurnal.unsyiah.ac.id/peluang/article/download/1301/1188

ISBN: 978-602-53420-4-2

SIPRO MEDICAL RECORD AS EXCHANGE PROJECT PILOT DATA MEDICAL RECORD (INTEROPERABILITY) HOSPITAL IN BALI

I Made Widnyana[1] Gerson Feoh[2*], Bambang Hadi Kartiko[2]

[1,2,3] Universitas Dhyana Pura

gerson.feoh@undhirabali.ac.id*

ABSTRACT

This research was conducted as a pilot project in providing an integrated and standardized medical record interoperability system that can be applied by hospitals in Bali under the name Interoperability Information System (SIPRO). During this time the process of requesting data from outside parties such as the police, insurance, and health services to the Hospital in Bali related documents relating to the patient's medical record (interoperability) has not been integrated between the hospital system with those outside the hospital. The service of exchanging information with data collection and recording is currently still carried out with expedition books. The medical record information exchange reporting system is still manually recapitulated by officers. The system development analysis method used is the development of Systems Development Life Cycle (SDLC) with the Perl Hypertext Preprocessor (PHP) programming language, Hyper Text Markup Language (HTML), Cascading Style Sheet (CSS) and using a database based on Structure Query Language (MySQL). The results of this study are a prototype application (SIPRO) that can assist the police in the process of requesting and taking visum et repertum, insurers in the process of requesting and taking medical certificates, and the health department in the process of requesting and taking medical resumes, and successfully assisting the head of the medical record in the process of accurately reporting services to support decision making with user test (usability) Based on the USE Questionnaire method at the Mangusada Regional Hospital, Badung Regency, Bali Province as a research partner with good results (79.77%).

***Keywords**: Interoperability of Medical Records, Visum et Repertum, Medical Certificate, Medical Resumes, RSD Mangusada*

INTRODUCTION

Interoperability is the ability of two or more systems or components to exchange information and use information that has been questioned with common standards that have been agreed together [1]. Fulfillment of interoperability will support the creation of a longitudinal Electronic Health Record (EHR), which provides long-term and fulfills all health services that have been received by each patient [2]. In hospitals, interoperability of medical records occurs when medical records are needed by several parties, namely the Police, Insurance, and Health Services. Based on the data recapitulation of medical record information transfer in October to December 2018 at the Mangusada Regional Hospital in Badung Regency covering 25 flights of medical record information between hospitals and the Police, and 76 records of medical records information between hospitals with insurance. Based on the results of an interview with the Head of Reporting Affairs at the Mangusada Regional Hospital in Badung Regency, agreement on the medical record information between the hospital and the Health Service does not require data that can be recapitulated.

During this time, the recording of recapitulation data has not been computerized and still uses expedition books, so officers must recapitulate when making monthly reports. The medical record information exchange service has not been integrated between the Hospital and the Police, Insurance, and Health Services which has resulted in the ineffectual exchange of medical record information services because the Police, Insurance and Health Services must come to the Hospital to submit an application letter and come back if the required documents have been processed. With the Medical Record Interoperability Information System (SIPRO), it can become a pilot project design project that can help the medical record information exchange service be carried out effectively so that the Police, Insurance and Health Services can send an application letter and take *Visum et Repertum*, Medical Certificate, and Medical Resume without coming to the hospital first.

SIPRO was built using the Perl Hypertext Preprocessor (PHP) programming language, Hyper Text Markup Language (HTML), Cascading Style Sheets (CSS), JavaScript, and using a database based on Structure Query Language (MySQL). In this system, the police, insurance, and health offices will process the data for the application letter, the doctor will process the data entry *visum et repertum*, medical certificate, and medical resume, and the head of the medical record will process the monthly report input. Data processed is *visum et repertum* data, medical certificate, medical resume, and monthly report on medical record information exchange so that it can produce output in the form of *visum et repertum* that can be received by the police, medical certificate that can be accepted by insurance, medical resumes that can be accepted by the health department, and monthly reports on the exchange of medical record information that can be received by the head of the medical record. It is expected that the authors can create a design that can simplify the process of exchanging medical record information services using the interoperability information system (SIPRO) medical record.

METHODS

System development analysis method used is the development of Systems Development Life Cycle (SDLC) system with the method used is the waterfall method. The stages in the waterfall method are analysis, design, implementation, testing, maintenance [3], which are elaborated as follows:

1) Analysis
   System services, constraints, and goals are determined by the results of consultations with users who are then defined in detail and function as system specifications.
2) Design
   System design stages allocate system requirements both hardware and software by forming the overall system architecture. Software design involves identifying and describing the basic system abstraction of the software and its relationships.
3) Implementation
   At this stage, software design is realized as a series of programs or program units. Testing involves verifying that each unit meets its specifications.
4) Testing
   The individual units of the program or program are combined and tested as a complete system to ascertain whether it matches the software requirements or not. After testing, the software can be sent to the customer
5) Maintenance
   Usually (although not always), this stage is the longest stage. The system is installed and used significantly. Maintenance involves correcting errors that were not found in the previous stages, increasing the implementation of the system unit, and improving system services as new requirements [4]

CONCEPTUAL FRAMEWORK

The problem found in the process of exchanging medical record information is that the process of exchanging medical record information requires a lot of time from the application process to document collection and recording and recapitulation of data that has not been computerized and still uses expedition books. In this study, the authors use the stages of system development with the Systems Development Life Cycle (SDLC) method with the method used is the waterfall method to produce an interoperability information system (SIPRO) medical record.

In this system, the input data is patient data visum et repertum which is further processed so that it can produce output in the form of visum et repertum, patient data medical certificate which is further processed so as to produce output in the form of medical certificate, patient resume medical data which is further processed so that it can produce output in the form of medical resumes, report data which is further processed so as to produce output in the form of monthly reports on the exchange of medical record information. After that the medical record interoperability information system (SIPRO) will be produced which is expected to facilitate the process of exchanging medical record information between the hospital with the police, insurance and health services, increasing the effectiveness of the performance of employees working in the medical record information exchange section, and making it easier the process of reporting medical information exchange. The conceptual framework in this study can be seen in Figure 1.

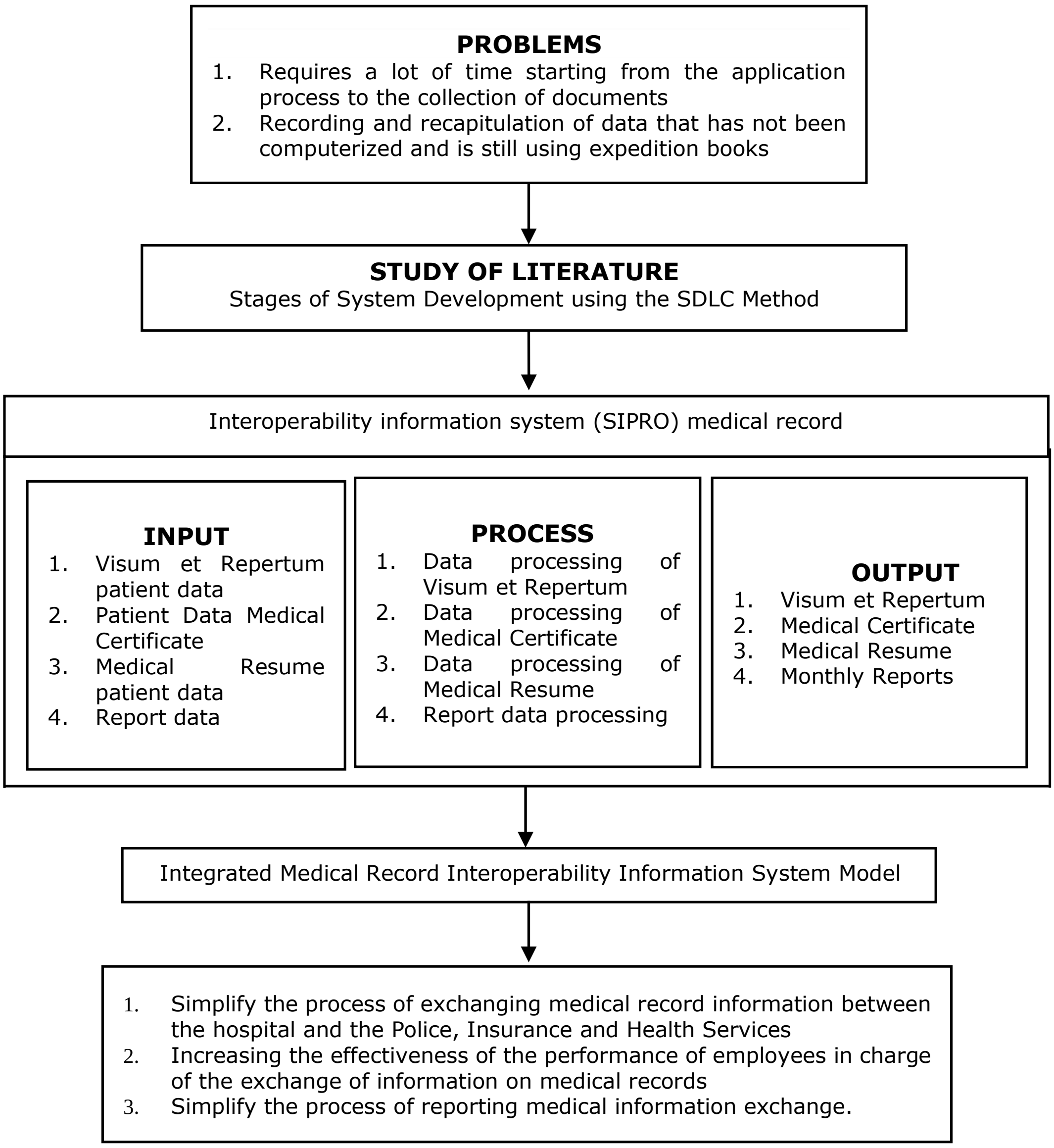


Figure 1 Coceptual Framework

USABILITY INSTRUMENT

The instrument for testing usability aspects uses the Usefulness, Satisfaction, Ease (USE) Questionnaire questionnaire. This test is a checklist table that is filled out by the user after using the medical record interoperability information system (SIPRO) using a positive statement linkert interval scale. The linkert scale of the positive statement can be seen in table 1.

Table 1 Positive Statement Likert Scale Intervals

Alternative Answers	Value
Strongly Disagree	1
Disagree	2
Hesitation	3
Agree	4
Strongly Agree	5

With the calculation method:

Percentage of Eligibility (%) = $\frac{\text{Observation score}}{\text{Expected score}}$ x 100%

After obtaining the percentage results from the previous calculation, then the data are compared with the criteria for interpretation of scores [5]. Criteria for interpretation of scores can be seen in table 2.

Table 2 Guidelines for Interpretation of Score After Convert

Number (In %)	Classification
0-20	Very Bad
21-40	Not Good
41-60	Enough
61-80	Good
81-100	Very Good

The USE Questionnaire consists of 30 questions that are divided into 4 namely usefulness, ease of use, ease of learning, and satisfaction. The USE Questionnaire can be seen in table 3.

Table 3 USE Questionnaire

No	Instrument	SD	D	N	A	SA
Usefulness						
1.	This application helps me be more effective					
2.	This application helps me be more productive					
3.	This application is useful					
4.	This application gives me a big impact on the tasks that I do in my life					
5.	This application makes it easy for me to achieve the things I want					
6.	This application saves time when I use it					
7.	This application suits my needs					
8.	This application works according to what I expect					
Ease of Use						
9.	This application is easy to use					
10.	This application is practical to use					
11.	This application is easy to understand					
12.	This application requires practical steps to achieve what I want to do					
13.	This application can be adjusted as needed					
14.	No difficulty using this application					

ISBN: 978-602-53420-4-2

15.	I can use without written instructions
16.	I don't see any inconsistency as long as I use it
17.	Users who rarely or regularly use it will like this system
18.	I can get back from mistakes quickly and easily
19.	I can use this system successfully every time I use it
Ease of Learning	
20.	I learned to use this application quickly
21.	I easily remember how to use this application
22.	This system is easy to learn how to use it
23.	I quickly become skilled with this application
Satisfaction	
24.	I am satisfied with this application
25.	I would recommend this application to a friend
26.	This application is fun to use
27.	This application works the way I want
28.	This application is very good
29.	I feel I must have this application
30.	This application is comfortable to use

FINDINGS AND DISCUSSIONS

Based on the research method used, namely the system development life cycle approach (SDLC), the interoperability information system (SIPRO) of medical records is produced by putting the system ready to be operated by the system user. The page display of the medical record interoperability system (SIPRO) is seen in the Figure 2.

Figure 2 Display Login Page

ISBN: 978-602-53420-4-2

Figure 3 Display the Main Menu

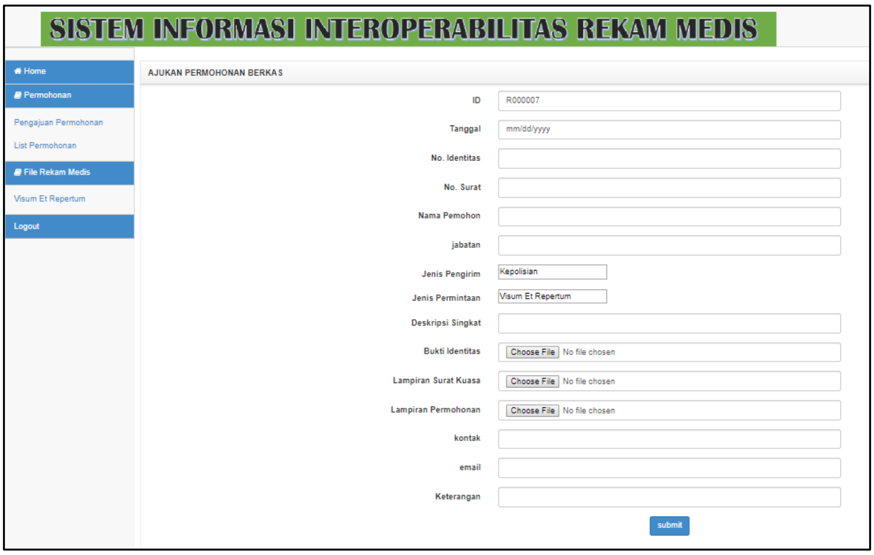


Figure 4 Display Add Request

Figure 5 Display Application Verification

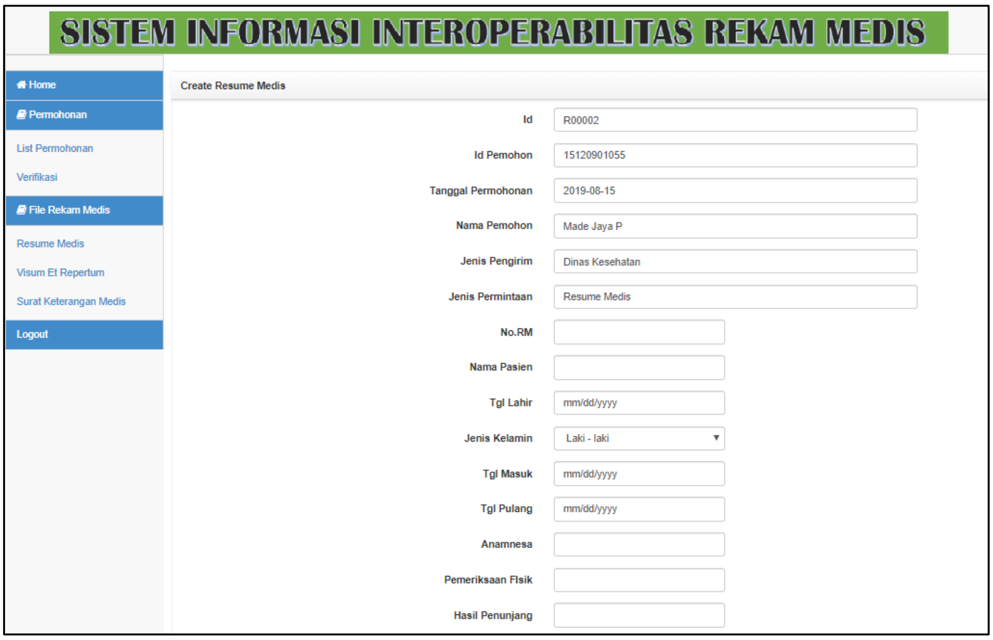
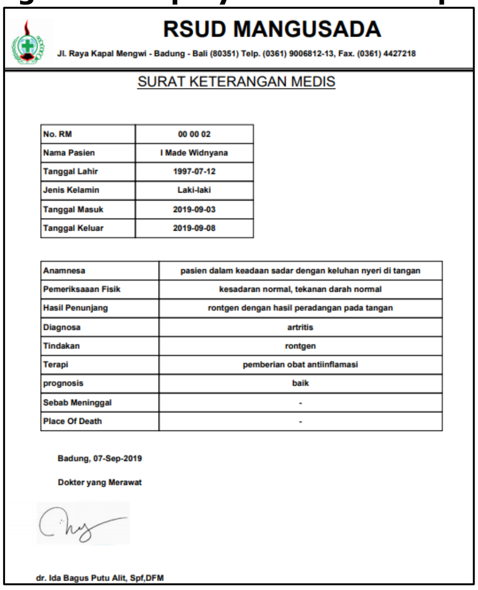


Figure 6 Display Document Input



RSUD MANGUSADA

Jl. Raya Kapal Mengwi - Badung - Bali (80351) Telp. (0361) 9006812-13, Fax. (0361) 4427218

SURAT KETERANGAN MEDIS

No. RM	00 00 02
Nama Pasien	I Made Widnyana
Tanggal Lahir	1997-07-12
Jenis Kelamin	Laki-laki
Tanggal Masuk	2019-09-03
Tanggal Keluar	2019-09-08

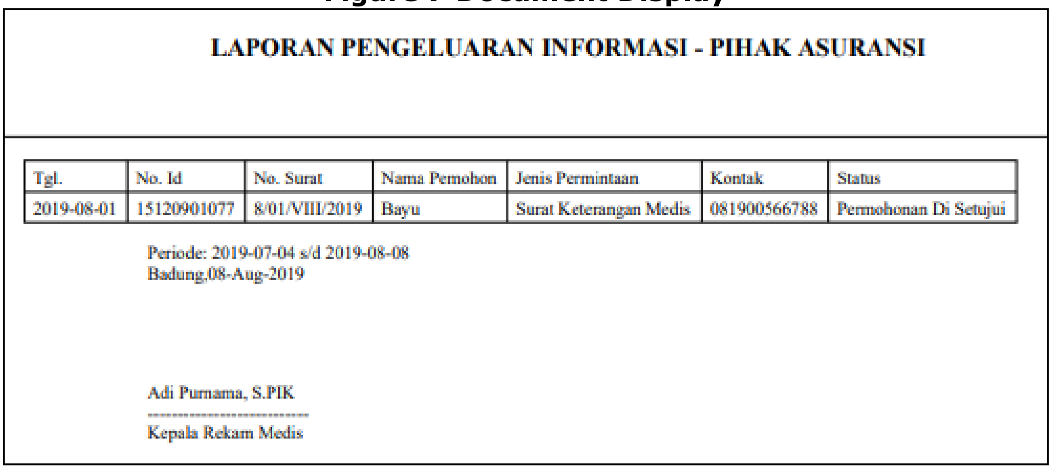
Anamnesa	pasien dalam keadaan sadar dengan keluhan nyeri di tangan
Pemeriksaaan Fisik	kesadaran normal, tekanan darah normal
Hasil Penunjang	rontgen dengan hasil peradangan pada tangan
Diagnosa	artritis
Tindakan	rontgen
Terapi	pemberian obat antiinflamasi
prognosis	baik
Sebab Meninggal	-
Place Of Death	-

Badung, 07-Sep-2019

Dokter yang Merawat

dr. Ida Bagus Putu Alit, Spf,DFM

Figure 7 Document Display



LAPORAN PENGELUARAN INFORMASI - PIHAK ASURANSI

Tgl.	No. Id	No. Surat	Nama Pemohon	Jenis Permintaan	Kontak	Status
2019-08-01	15120901077	8/01/VIII/2019	Bayu	Surat Keterangan Medis	081900566788	Permohonan Di Setujui

Periode: 2019-07-04 s/d 2019-08-08

Badung,08-Aug-2019

Adi Purnama, S.PIK

Kepala Rekam Medis

Figure 8 Display Monthly Reports

Furthermore, the authors conducted a blackbox testing to find out whether the functions, inputs, and outputs of the software match the required specifications. In this study, testing the login page, testing the main page, testing the admin page, testing the head of the medical record page, testing the doctor page, testing the police page, testing the insurance page, testing the page of the health service, testing the request page visum et repertum, testing the request page medical information, testing the medical resume application page, testing the visum et repertum page, testing the medical certificate page, testing the medical resume page, testing the monthly report page which as a whole is in accordance with the results desired by the author.

CONLUSION

From the usability test results on SIPRO, it can be concluded that this system is suitable for use in hospitals in Bali by meeting the usability standard of 79.77% and is expected to become a new standard in the process of exchanging medical record information that can facilitate the process of exchanging medical record information between hospitals with the police, insurance and health services, improve the effectiveness of the performance of employees in charge of the exchange of information on medical records, and simplify the process of reporting medical information exchange.

REFERENCES

[1] Bassil, Y., 2012. A Simulation Model for the Waterfall Software Development Life Cycle. *International Journal of Engineering & Technology (iJET),* 2(5), p. 2.

[2] Hatta, G. R., 2014. *Pedoman Manajemen Informasi Kesehatan di Sarana Pelayanan Kesehatan.* 3 ed. Jakarta: Universitas Indonesia (UI-Press).

[3] Marier, S. M., 2018. Potensi Interoperabilitas Sistem Informasi Rumah Sakit Untuk Penerapan Standar Pertukaran Data HL7. *Jurnal Sistem Informasi,* 02(02), p. 75.

[4] Sasmito, G. W., 2017. Penerapan Metode Waterfall Pada Desain. *Sistem Informasi Geografis Industri Kabupaten Tegal,* 2(1), p. 8.

[5] Riduwan, 2012. *Skala Pengukuran Variabel-variabel Penelitian.* Bandung: Alfabeta.

ENGLISH LANGUAGE NEEDS OF RESTAURANT WAITERS & BARS AT MAMA'S GERMAN RESTAURANT: TARGET SITUATION ANALYSIS

I Gede Neil Prajamukti Wardhana[1], Clara Bethesda Sigit[2]
[1,2] Dhyana Pura University
neilwardhana@undhirabali.ac.id

ABSTRACT

The aim of this this research was to find out about English needs to waiter and bartender in bar at restaurant. English specific purpose is a tool to learn about English related with needs and interest to learner. English needs could be used to workers especially to waiter and bartender in restaurant. This research is qualitative research used observation and in depth-interview. The subject of this research was waiter and bar staff at Mama's German Restaurant-Legian with the object of this research was English needs to waiter and bartender staff. Finding of this research was to find out English needs staff waiter and bar at restaurant and after finding their needs this restaurant has done for English course to improve speaking ability of waiter and bar staff.

Keywords: *English Specific Purpose, Waiter & Bar, Target Situation*

INTRODUCTION

English is International language and still using for communication nowadays. English has taken a role in economic, technology and also related in tourism industry. Related with tourism sector, English is still using to communicate with tourist that has been visited to Bali looking for beautiful island, enjoy the culture and also local foods. In tourism area especially in restaurant, for the workers in restaurant still finding difficult to speaking English to communicte with guest that come to restaurant enjoying foods and drinks, also they were looking for free wifi. According to Wardhaugh (1992) stated that communication is defined as the process of transmitting information from the source.

Wardhaugh stated that communication is a process to deliver the information from source to the receiver. Communication could be a problem if not known about needs and wants from others. Communication is also important in tourism field especially in restaurant. As a waiter and bartender in restaurant, the mistake of communication to the guest should be prevented. The foreign guest who enters to the restaurant and comes from the other country and follows other cultural or their ways to communicate, it is caused or finding difficult for waiter and bartender to communicate to foreign guest.

In this case also making the waiters and bartenders that work in the restaurant need to lean about ESP (English Specific Purpose) because of their ability English speaking on general is not enough to communicate to the foreign guest that comes from the other country. To fulfill needs for waiter and bartender that work in the restaurant, they need to learn ESP to support their English. According to Hutchinson and Waters (1987) stated that ESP is an approach to language learning and it is based on learners' need. Based on Hutchinson and Waters statement related with ESP is an approach English learning and set to the particular needs. Related to ESP, ESP is needed to each sector work related in English and about their profession. Therefore, it is needed to make ESP research to waiter and bartender in restaurant in Legian, Bali. This research is done to see the phenomenon that was happened to English needs in the restaurant.

Based on the phenomenon happened, it is interested to make a research with the title: English Language Needs of Restaurant Waiters & Bars at Mama's German

Restaurant Legian: Target Situation Analysis. Related to problems that found in this research there were 2 problems that discussed, as follows: what is an English need that the waiter and bar required in Mama's German Restaurant, Legian and what is the obstacle that the waiter and bar found in their restaurant. The aims of this research are to find out English needs to waiter and bar in Mama's German Restaurant and the obstacles that they found in their restaurant.

METHODS

This research is done by qualitative method. According to Susanto (2015) qualitative research is has purposed to describe a process of teaching activity and has the basic what was happened in the field as the study material to finding the weakness and lack of it so it can be the improvement effort, analysis fact, tendency and act of study that happened in the field, arrange the hypothesis that concern to principal and education to data and information that happened in the field.

This research has done to the workers in waiter/waitress and bartender position in Mama's Germn Restaurant and for the address in Legian street, Legian, Kuta, Badung, Bali and to see about the English needs for worker and obstacles that they faced related to ESP.

Method of data analysis is done by interview process. For the first of process was choosing and selecting worker appropriates on the ability in English speaking after that doing the interview. After that, taking notes related with questions that have been asked. Next, doing the obstacle analysis that face to worker especially in waiter/waitress and bartender.

Method of collecting data to the research is used descriptive analysis method by doing the interview process to the workers especially in waiter/waitress and bartender in restaurant. The process of collecting data is done by observation and documentation to support of the research process. For the documentation is done by taking audio records and some pictures. The process of interview is done by preparing the questions related to language needs of workers.

FINDINGS AND DISCUSSIONS

To discuss problem number 1, it has done by depth-interview to the staff and supervisor to find out the needs of Mama's German Restaurant staff. The interview process was carried out and in the interview process 13 questions were asked to the waiter and bartender staff.

The following are some questions that raised up or asked to the waiter and bar staff. In this finding, in case only some questions that will be discussed or important related to English Specific Purpose.

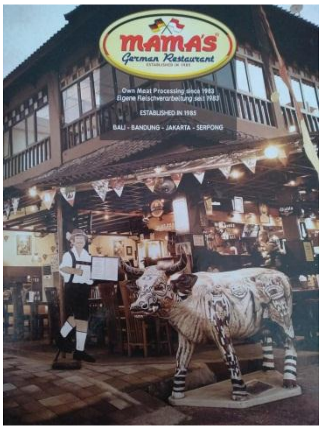
1. Is it necessary to use English in your work? If any, please explain.
   One of the Bar Waitress in the name of Fitri answered (00:16) Fitri said that is needed to use English.
   Audio transcript: "Yes, of course English needs, because of we meet to foreign guest and almost of our job using English"
   Supervisor staff with name Mrs. Ida answered (00:55) she said really important using English because the guest comes from abroad.
   Audio transcript: "...Using English is really important in our job because most of the guests come from abroad..."
2. What kind of activity requires the use of English in your field of your work?
   Fitri answered every activity in every communication (00:33)
   Audio transcript: "Almost every aspect ya... when we are talking, when we are taking order, and communication also..."
   Supervisor Staff Mrs. Ida answered to doing communication with customer (01:30)

Audio transcript: "...Using English for communication..."

3. What use of English that more appropriate to use in your work? (Reading, writing, listening and speaking).
   Rika as a Bar Waitress said (01:46) is dominant or more appropriate in speaking and listening.
   Transcript audio: "I am dominant in speaking and listening"
   Supervisor staff Mrs. Ida answered is dominant Listening and Speaking (02:08)
   Audio transcript: "...we dominant in listening and speaking..."
4. Is there a specific standard for using English from restaurants if you speak to foreign guests?
   Mr. Ketut Putra as the head waiter said (02:11) there is standar using grammar and the language is politeness.
   Transcript audio: "There is a standard sir; using grammar and polite language... get the briefing used polite language..."
   Supervisor staff Mrs. Ida answered (03:01) standard always giving to the staff when briefing.
   Audio transcript: "...our standard is always in briefing to staff..."
5. What obstacles do you face when you handle foreign guests?
   Mr. Ketut Putra said (02:39) The obstacle that I face if the guest complaint for example: Complaint to foods.
   Transcript audio: ""All this time ... the obstacle I faced as a waiter was when a guest complained about food and drinks ... for example, a guest eating a steak ... if the steak was hard the guest must be complaining ... he said why the steak was hard like this ... we answered the steak from the supplier ... specifically in the restaurant here if the guest complains he doesn't eat the food we ordered is void Sir, the guest doesn't pay for foods... we give the guest for food is free ..."
   Supervisor staff Mrs. Ida answered (04:01) the obstacle when handling guest that sometimes couldn't speak English, fro example: Russian guest.
   Audio transcript: "...there was a guest could speak English or not example Russian guest sometimes couldn't speak English so that's obstacle..."
6. Is different country caused different difficulties for you to use English?
   Yudi answered yes, there was different country for the guest coming to the restaurant (04:36)
   Transcript audo: "It's different, like before... German guests usually I think can speak English... but there are some who can't speak English... here the guest thinks we can speak German also... he speaks German also... but sometimes it's embarrassing too, is it right sir.. this how come the German restaurant doesn't speak German ... it's not speaking well for German language, it's just a little but for English we can speak."
   Supervisor staf Mrs. Ida answered yes; there was different (05:01)
   Audio transcript: "...yes...characterisc appereance and style of speaking..."
7. Have you got miscommunication when you are speaking with foreign guest?
   Fitri answered Yes she had and explain about her problem (03:28)
   Audio transcript: I had miscommunication from China's guest and the guest did not know what was pork and pig, but his guests still did not understand... I searched on Google what was pig and pork... then the guest understood... so that there was an obstacle sometimes...
   Supervisor staff Mrs. Ida answered that she had miscommunication (06:07)
   Audio transcript: "...when handled from the staff likes the guest was complaint of food and situation...probably the staff lacks of understand what the guest want..."
8. Does the restaurant provide special English course for restaurant employees? and to what extent is this English language learning? And how far English learning to do in this restaurant?

Dika as a waiter answered yes provide about English course, this far is good because of this management concern aboult quality of their staffs (07:12)
Audio transcript: yes there is... as far was good, because this company concerns to the quality of job and staff also that English course every Saturday although several hours but it's important and useful.
Supervisor staff Mrs. Ida answered yes, there was English course, this restaurant giving English course to the staff (07:35)
Audio transcript: "...this restaurant giving English course every Saturday... 1 hour for English course..."

9. What needs to be added in the process of learning English in this restaurant?
Dika answered for the needs is timing of English course. (07:57)
Audio transcript:"...the time because 1 hours that short for studying..."
Supervisor Staff Mrs Ida answered it's about time that need to be added because this restaurant opens 24 hours.
Audio transcript: "...time..we have constrained with open 24 hours..."
(Figure 1)



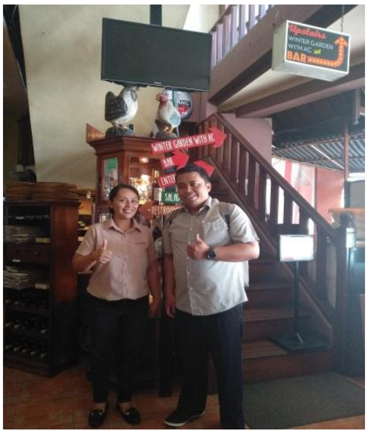


Figure 1. Mama's German Restaurant with Supervisor Operational

In the process of depth-interview found that communication in English was really needed to the staffs that works in Mama's German Restaurant. Communication that needed was speaking and listening. At the last of interview the staff and supervisor answered their needs in English course.

Related with obstacle that faced to waiter/waitress and bartender staff answered from interview was the guest entered to restaurant and ate the foods the the guest complaint with their order, using foreign language especially for English then for the other solution is used by body language, there was a vocabulary that doesn't understand by the waiter and bar staff so that they encounter difficulties and are sometimes assisted by supervisors or managers, sometimes they don't understand what the guest is talking about related to what the guest needs, and also the guests who come to the restaurant speak English too fast so they need to repeat the speech related to the guest's needs.

Also related to the analysis of the needs of the waiter and bar staff at Mama's German Restaurant-Legian, analyzed the needs of the wants and lacks as a frame in the research process.

In the process of needs, they are more dominant to the process of learning English, the waiter and bar staff more dominant choose to speak and listen to English to make their communication better to guests.

In the case of lacks that occur in the waiter and bar staff, some guests who come to visit from different countries, these guests bring different accents or speaking styles. Also when guests want to say or ask something if you do not understand the intentions of desire, guests use other methods by showing pictures on the menu or by gestures. In this case, the lacks experienced by the waiter and bar staff in the speaking and listening skills.

In the process of wants which is expected by the waiter and bar staff related to their lacks, the management of restaurant has responded by providing special English course in the speaking skill. The management of restaurant tried to respond to the staff's wants by providing English language course which is held every Saturday with a duration of 1 hour (at the time of the interview all staff have said things about English course) but according to restaurant staff there is still less time learning English because of their busy working time because this restaurant is open 24 hours (Figure 2)

Figure 2. English Course with Staff

Conclusion

The conclusion of this research, as follows:

1. Based on the results of depth-interviews with the waiter and bar staff, English communication or speaking that they need to say in terms of speaking to guests who come to the restaurant.
2. Differences in the style of speech or accent of guests who come from different countries cause them difficulty understanding what guests need when coming to the restaurant.
3. The restaurant management tried to fulfill the wants of the staf by providing special English course for waiter and bar staff in restaurant.

REFERENCES

[1] Hutchinson, T., & Waters, A. (1987). *English for specific purposes: a learner centered approach.* Cambridge, UK: Cambridge University Press.

[2] Jaramili dan Monsalve. 2016. *The Implementation of an ESP Course for Waiters and Waitresses.*UTP Repository.

[3] Robinson, P. (1991). *ESP Today: a practitioner guide*. United Kingdom: Routledge Prentice Hall International.

[4] Santoso. 2016. *English Language Needs of Restaurant Waiters & Servers at Pepito Grand Wahid Hotel Restaurant: A Target Situation Analysis.* UKSW Repository

[5] Susanto, Bob. 2015. *Metode Penelitian Kualitatif dan Karakteristiknya.* http://www.seputarpengetahuan.com/2015/02/metode-penelitian-kualitatif-dan-karakteristiknya.html (diakses 25 Maret 2019).

[6] Wardhaugh. 1992. *An Introduction to Sociolinguistics*. Cambridge. Cambridge University Press.

ISBN: 978-602-53420-4-2

CONGKLAK MODIFICATION TO IMPROVE FINE MOTOR SKILLS IN CHILDREN WITH DOWN SYNDROME

I Putu Darmawijaya[1], Febri Kristianawati[2], Indah Pramita[3]
[1,2,3] Physiotherapy Study Program, Universitas Dhyana Pura
darmawijaya@undhirabali.ac.id*

ABSTRACT

This study aims to determine the effects of the Congklak modification on fine motor skills in children with Down Syndrome at Yayasan Mentari Fajar. The importance of this study stems from the developmental problems typically faced by children with Down Syndrome, one of which is the development of fine motor skills which results in a lack of ability to perform daily activities. Fine motor skills on the wrist and fingers need to be optimized so that children can perform activities independently and help prepare the child's skills, so that the quality of life of children with Down Syndrome will be further improved. Giving interventions with play therapy methods in the Congklak was used to optimize fine motor skills to form functional activities in children with Down Syndrome. The game of Congklak was modified using three sizes of seeds and different ways of playing. This study is a pre-experimental using pretest-posttest design with a sample of 11 children with Down Syndrome sampled by purposive sampling method. The Congklak modified was given for four weeks and conducted at the Mentari Fajar Foundation. Sollermann Test was used to measure tghe fine motor skills. Calculation of data normality test using Shapiro-Wilk test results obtained p > 0.05 and the data is said to be normal. Hypothesis testing using paired sample t-test results obtained p = 0.001 (p < 0.05). Based on the findings, the study concludes that there is an increase in fine motor skills in children with Down Syndrome upon treatment, with percentage increase of 20.28%. It can be concluded that the Congklak modification can improve fine motor skills in children with Down Syndrome.

Keyword: Fine Motor, Down Syndrome and Congklak Modification

INTRODUCTION

Down Syndrome is a genetic disorder caused by trisomy 21 and is one of the problems in child development. Children with Down Syndrome have characteristics and problems, namely muscle tone abnormalities, laxity ligaments, head tend to be mild microcephaly, lack of coordination of movement and development problems that result in lack of ability to perform daily activities. Hypotonus will make muscle pressure in children with Down Syndrome when moving is not good. Muscle pressure is needed to make movements, one of which is fine motor movements. Every fine motor movement requires good coordination, circumstances tend to be less coordinated in children with Down Syndrome can cause children to experience changes in fine motor skills such as grasping an object firmly and reaching objects by pinching. This will result in the inability of children with Down Syndrome to complete their daily activities properly.

Fine motor skills are the use of small muscles involved in movements that require limb function to manipulate objects (Aslan & Aslan, 2016: 188). Perfecting fine motor skills, coordination and balance of the eyes and hands increases with the maturity and practice. At school age the use of children's hand abilities is more increased and independent, also the manipulative abilities of children are almost perfect (Ricci and Kyle, 2009: 858). Fine motor skills in school-age children will develop and find their functions. Fine motor skills will be more coordinated, so that children can perform fine motor activities that require good hand control and coordination (Murti, 2018: 24).

Fine motor skills require good hand movements. Optimizing the ability of the hands is needed so that children with Down Syndrome can perform activities independently and to prepare skills in children, so that the life quality of children with Down Syndrome will improve. Optimizing fine motor skills can be done by playing. One of the functional play activities can use traditional games which generally give joy to children who do it (Kurniati, 2016: 2). According to Conny Semiawan in play activities all stages of child development can function and develop properly. Play will encourage children to practice their skills which direct to cognitive development, language, psychomotor and physical development of children. Congklak is one of the traditional games that can develop the ability of the hands and fingers when holding and playing Congklak seeds (Hasanah, 2016: 727).

The purpose of training fine motor skills in children with games is to move the limbs, make children creative and explore with their fingers and coordinate the eyes and hands (Samosir, 2018: 12). The Congklak can be modified using different seed sizes to play and different play procedures. The smaller size of the seeds to be played, the more effort will be made by children with Down Syndrome to play the seeds. The game uses seeds measuring 2 cm, 1.7 cm and 1.5 cm. The first game is done with the biggest seeds. The seeds placed in each parent hole will be played to fill 7children hole on each side of the Congklak board. Vidya Pitaloka, et al (2015: 86-87) conducted a similar study using the Ball's Melody technique in children with Down Syndrome. This technique is a round shape media that is made more than one with a variety of sizes, colors, materials and outside textures that will make a sound when played. The use of different ball sizes can optimize fine motor skills in children with Down Syndrome. Juli Maini Sitepu and Sri Rahayu Janita (2016: 78-82) found that there was an increase in children's fine motor skills with mosaic techniques. This technique uses one hand to pinch a pattern that has been cut before by the child. This is similar to the game of Congklak that uses hands and fingers to grab Congklak seeds. Therefore, on this occasion the researchers were interested in bringing up the research with the title "Congklak Modification to Improve Fine Motor Skills in Children with Down Syndrome".

METHODS

The research method used in this study is a quantitative method with a Pre-Experimental using One Group Pretest-Posttest Design. The value of fine motor skills will be measured before and after giving the game. The game is given 4 times a week for 4 weeks with 14 meetings where the game is carried out for 10 minutes. The criteria used are subjects who are Down Syndrome children according to the diagnosis at the Yayasan Mentari Fajar, subjects are clients at the Yayasan Mentari Fajar, subjects have value of fine motor skills less than 60 with the Sollermann Test, the age of subject is school age 6-12 years, able to communicate 2 directions.

FINDINGS AND DISCUSSIONS

Descriptive Statistical Analysis

In this study descriptive statistical analysis data is shown through the mean value, minimum value and maximum value.

Variable	N	Mean	Min	Max
Pre-test	11	50.64	44	59
Post-test	11	60.91	52	68

The table above shows the average value of fine motor skills through the Sollermann test before being given a game is 50.64 points with the lowest score of 44 points and the highest score of 59 points. Fine motor skills after giving the game showed an average score of 60.91 points with the lowest score of 52 points and the highest score of 68 points.

Normality Test

Normality test is performed on the data that has been obtained to determine the distribution of data.

Variable	N	*P*
Pre-test	11	0,366
Post-test	11	0,505

Based on the normality test table with the Shapiro Wilk test above, it is known that the p value> 0.05 in the pre-test and post-test, so it is said that fine motor ability data is normally distributed.

Hypothesis Testing

Hypothesis testing with Paired Sample T Test is carried out on data with a normal distribution on the results of the normality test. Paired Sample T Testis used to determine the presence or absence of differences in the average value of the data during pre-test and post-test.

Data	Df	T count	*P*
Pre-test Post-test	10	-15,522	0,001

The table above shows the results of the value of fine motor skills p = 0.001 or p <0.05 in children with Down Syndrome at the Yayasan Mentari Fajar. These results indicate a significant difference in the value of pre-test and post-test fine motor skills.

In this study, taking a sample of children with Down Syndrome with ages of 7-12 years, where the age is included in the school age. The use of the ability of the hands will be more increased and independent at school age. Almost perfect manipulative abilities also occur at school age (Ricci and Kyle, 2009: 858). In their activities school-age children will make movements with better hand and finger control (Bergin and Bergin, 2014: 55-57). In general, the age of elementary school children is the age where they are able to do activities using motor skills better and children are easier to accept a command.

According to Raffi et al (2018: 3) children with Down Syndrome at the age of 9-18 years are very dependent on their parents or those around them to do food independence tasks. Fine motor problems of children with Down Syndrome are influenced by hypotonus, microcephaly and laxity ligaments are some of the characteristics of Down Syndrome children. Hazmi et al (2014: 60) children with Down Syndrome have delayed motor development associated with the presence of muscle hypotonus and laxity which are characteristic in children.

Kawanto et al (2012) explain the factors of nutrition, head size, economic status of parents and early stimulation are factors that make intelligence in children with Down Syndrome differ.

According to Burhaein (2017) functional movements such as physical activity and play can stimulate and support the development of motor skills in children. Same with children in general, the game will support fine motor skills in children with Down Syndrome. According to Irdawati and Muhlisin (2009) games can help children's understanding of life and with games also children with Down Syndrome will try to understand interrelated relationships. According to Gokhale's research, Solanki and Agarwal (2014: 41) through playing children will explore and develop physical and social skills. Play is a part of a child's life, so the method of play therapy needs to be applied by physiotherapy to form functional activities in developing the abilities of children with Down Syndrome. The element of play therapy in dealing with children with Down Syndrome is needed so that the therapeutic process runs more pleasant, so that children will be motivated to move, think and be creative independently.

Hasanah (2016), that one of the traditional games is Congklak can develop fine motoric aspects in children. The hands and fingers will move when grasping and playing with Congklak seeds. Moreover, there will be movements in the elbows and shoulders when the fingers take seeds and play them.

In this study using Congklak modification using 3 different seed sizes. According to research by Pitaloka et al (2015), Ball's melody games are effective in improving fine motor skills of children with Down Syndrome. After being given theBall's melody games the research sample shows the development of being able to hold tightly to an object, being able to move objects from the right hand to the left hand and being able to master up to 3 types of Ball's melody. Ball's melody game is similar to Congklak modification because the game also uses different ball sizes.

Rahmayanti, Angriyani and Kulsum (2018) research was conducted on 16 samples of children with Down Syndrome using different games, namely Puzzles. Puzzle games are effective in influencing the fine motor skills of children with Down Syndrome. The movement when taking a puzzle is the same as the movement when taking a Congklak seed. There will be a pincer grasp or precision grasp movement when the hand and fingers pick up the puzzle piece.

CONCLUSION

Based on the results of this study it can be concluded that the giving of the Congklak modification can improve fine motor skills in all samples of children with Down Syndrome in the Yayasan Mentari Fajar with an increased percentage of 20.28%.

REFERENCES

[1] Aslan, S. and Aslan, U. B. (2016) 'An Evaluation of Fine and Gross Motor Skills in Adolescents', *Journal International of Science, Culture and Sport*, 4(2), pp. 187–194. Available at: https://dergipark.org.tr/download/article-file/225994%0A%0A.

[2] Bergin, C. C. and Bergin, D. A. (2014) 'Child and Adolescent Development in Your Classroom Second Edition'. United States of America: Cengage Learning, p. 736. doi: 10.1016/j.pestbp.2011.02.012.Investigations.

[3] Burhaein, E. (2017) 'Indonesian Journal of Primary Education', 1(1), pp. 51–58. Available at: http://ejournal.upi.edu/index.php/IJPE/article/view/7497.

[4] Gokhale, P., Solanki, P. V and Agarwal, P. (2014) 'To Study The Effectiveness of Play Based Therapy on Play Behaviour of Children with Down's Syndrome', *The Indian Journal of Occupational Therapy*, 46(2), p. 41. doi: 10.9790/0661-17416670.

[5] Hasanah, U. (2016) 'Pengembangan Kemampuan Fisik Motorik Melalui Permainan Tradisional Bagi Anak Usia Dini', *Al Athfal: Jurnal Pendidikan Anak*, 2(1), pp. 727–728. doi: 10.1016/j.semradonc.2008.09.006.

[6] Hazmi, D. F. D. I. Al, Tirtayasa, K. and Irfan, M. (2014) 'Kombinasi Neuro Developmental Treartment Dan Sensory Integration Lebih Baik Daripada HAnya Neuro Developmental Treartment Untuk Meningkatkan Keseimbangan Berdiri Anak Down Syndrome', *Sport and Fitness Journal*, 2(1), pp. 56–71. Available at: http://ejurnal.esaunggul.ac.id/index.php/Fisio/article/download/1099/1008.

[7] Irdawati and Muhlisin, A. (2009) 'Sindrom Down Pada Anak Ditinjau Dari Segi Biomedik dan Penatalaksanaannya', *Jurnal Berita Ilmu Keperawatan*, 2(1), pp. 47–50.

[8] Kawanto, F. H., Soedjarmiko and Hendarto, A. (2012) 'Factors Associated With Intelligence In Young Children With Down Syndrome', *Journal Paediatrica Indonesiana*, 52(4), pp. 194–199.

[9] Kurniati, E. (2016) 'Permainan Tradisional dan Perannya dalam Mengembangkan Keterampilan Sosial Anak'. Jakarta: Prenadamedia Group.
[10] Murti, T. (2018) 'Perkembangan Fisik Motorik Dan Perseptual Serta Implikasinya Pada Pembelajaran Di Sekolah Dasar', 8293, pp. 21–28. Available at: http://journal2.um.ac.id/index.php/wsd/.
[11] Pitaloka, V. *et al.* (2015) 'Pengembangan Kemampuan Motorik Halus Anak Usia Dini Melalui Balls Melody', 5(2), p. 83. Available at: ejournal.upi.edu/index.php/cakrawaladini/article/view/10523/650.
[12] Raffi, I., Indriati, G. and Utami, S. (2018) 'Efektifitas Pemberian Terapi Okupasi Dalam Meningkatkan Kemandirian Makan Pada Anak Usia Sekolah Dengan Down Syndrome', 3(10), p. 2. Available at: https://ejournal.unsri.ac.id.index.php/jk_sriwijaya/article/view/.
[13] Rahmayanti, S. D., Angriyani, L. and Kulsum, D. U. (2018) 'Pengaruh Terapi Bermain Puzzle Terhadap Kemampuan Motorik Halus Anak Down Syndrome DI SLB Negeri Citeureup Tahun 2018 Berdasarkan Data Riset Kesehatan Dasar', *Jurnal PINLITAMAS*, 1(1), pp. 93–99. Available at: http://www.ejournal.lppmstikesjayc.ac.id/index.php/pinlitamas1/article/download/42/43/.
[14] Ricci, S. S. and Kyle, T. (2009) 'Maternity and Pediatric Nursing'. China: Wolters Kluwer Health | Lippincott Williams & Wilkins. Available at: https://books.google.lk/books?id=gaYtFuND7VIC&pg=PA1571&dq=autoimmune+disorders+Systemic+lupus+erythematosus&hl=en&sa=X&ved=0ahUKEwiA7oSq_JPRAhVMpY8KHeUVCUsQ6AEIMDAD#v=onepage&q=autoimmune disorders Systemic lupus erythematosus&f=false.
[15] Samosir, N. R. (2018) 'Penambahan Senam Otak Pada Play Therapy Lebih Baik Terhadap Kemampuan Motorik Halus Anak Prasekolah', *Jurnal Ilmiah Fisioterapi (JIF)*, 1. Available at: jurnal.univrab.ac.id/index.php/jif/article/download/322/182/%0A%0A.
[16] Sitepu, J. M. and Janita, S. R. (2016) 'Meningkatkan Kemampuan Motorik Halus Anak Melalui Teknik Mozaik Di Raudhatul Athfal Nurul Huda Kecamatan Sunggal Kabupaten Deli Serdang', 8(2). doi: https://doi.org/10.30596/intiqad.v8i2.729.

ISBN: 978-602-53420-4-2

APPLICATION OF SMALL GROUP DISCUSSION LEARNING MODEL TO IMPROVE CATCH FISH LIVESTOCK BUSINESS RESULTS USING BIOFLOC SYSTEM IN ABIANSEMAL VILLAGE, BADUNG

I Gusti Ayu Agung Sinta Diarini[1], I Wayan Suryanto[2]
[1,2] Universitas Dhyana Pura
gungsinta@undhirabali.ac.id

ABSTRACT

Abiansemal village is one of the villages that become priority catfish farmers. One of the livestock business community in Abiansemal that has been formed is POKDAKAN BOGA SEGARA. Problems of business groups that must be solved are (1) There is no break-even point in the business group, (2) The cost of feed is quite high, not in accordance with the cost of goods sold, suitable fee. This business group desperately needs assistance in providing solutions to farmers in the production process, lack of knowledge of farmers about biofloc systems and need time to change our paradigm that still uses conventional methods. This catfish breeders group needs assistance and training by expertise to help fish breeders in general and assist in the production of quality fish. In addition, to increase production, a biofloc system is needed from the shape of ponds, regulating air, providing alternative assistance by providing probiotics, airrato / oxygen and density of stocking to increase the quality of catfish farming. Catfish Business Group Distributors also ask for assistance with production management in accordance with market expectations and demands. This group of community in Abiansemal village who is expected to be able to develop in the field of community business in the village. Method of Implementation carried out in this activity with the method of small group discussion, training and mentoring by expertise and Undhira Lecturers. This paper discusses to Open information on improving livestock business results and increasing markets. Results agreed in the implementation of this program Improve business results by an average of 25% per month and be able to increase the cost of fish feed by 7.4 kg / month from conventional methods.

Keywords: *Increased Business Results, Catfish Livestock Group, Biofloc System*

INTRODUCTION

Catfish farming is a culture that is currently favored by Abiansemal villagers, besides increasing catfish needs, catfish cultivation is one of the business potentials with great potential. Seen from the needs of catfish every year that continues to increase. According to (Statistics of the Bali provincial fisheries Department) the need for catfish in Bali reaches 12 tons / year from catfish pecel traders and fishing fish and the production of catfish in Bali is only 5 tons / year the rest comes from Java. From this, this cultivation is a vital group for the sustainability of the Abiansemal community in raising catfish.

In the village of Abiansemal, a catfish group was formed called POGDAKAN BOGA SEGARA which is chaired by Mr. Agung Lanang, which has been formed from 2012 until now. -70%. so there is no breakeven point in the group's business because it still uses conventional methods (IGusti Ayu Agung Sinta Diarini, 2019 (16)).

The purpose of this research is to increase catfish production and be able to reduce the cost of fish feed with the applied biofloc method. There are several stages carried out in this study including; (1) Bring in resource persons from the Bali provincial fisheries service to help catfish breeders, especially in the Abiansemal areas by socializing to change the community paradigm from conventional systems to biofloc systems, (2) Direct practice with Small Group Discussion methods to conduct direct

ISBN: 978-602-53420-4-2

experiments from ponds, water management system, stocking, giving molasses, and giving probiotics and catfish products can be seen up to 2-3 months.

The results of this study are expected to provide solutions to these problems, so as to increase production and reduce feed costs. Of course this group effort can improve the welfare of the community, especially to the farmers BOGA SEGARA POKDAKAN group and catfish business groups in the village Abiansemal, Badung.

METHODS

The method used in this group effort is by survey techniques, interviews, small group discussions and practices starting from the planning stage, the preparation stage of the pool media, the stage of pond preparation, the stage of seedling preparation until the seedling stage. In addition, the catfish community business group also received information dissemination and assistance from the expertise of the fisheries service to change the community's mainset of the biofloc system as well as a solution in the effort of this livestock group, especially to suppress fish feed because basically in this business the high cost of feed. There are several steps that can be done including:

Preparation Stage for Pond Making

At this stage the preparation is carried out for 2 days from the preparation of ponds with a diameter of 3 meters, the installation of an iron frame, the installation of rubber gutters, installation of pipes, tarpaulin, installation of drainage and installation of waterways.

Preparation Stage Pool Water Media

At this stage, the catfish business group made preparations by putting 2 kg of dolomite lime into the pond, putting clean water into the pool with a height of 80cm and preparing rice water but in this case used 4kg of bran that had been soaked for 15 minutes and filtered which was put into pool and shrimp paste that has been destroyed then added molasses and probiotics as much as 50cc in an activated aerator.

Preparation Stage Seedling

In the preparation for seedling, the first steps before sowing are: from pool cleaning, filling water in this case with a 3 meter diameter pool is given a 5.6m3 water volume, then probiotics in this case use probio 7 which has been registered in the lab test as much as 50cc and 50cc molasses aimed at developing bacteria in pond water, then giving 2kg dolamite lime which serves to reduce acid, rice water or bran water that has been soaked for 15 minutes by 4 kg with the benefit to grow or multiply plankton by continuing to fill salt into water as much as 1/2 kg. In preparation for spreading these seeds the aerator machine in water remains active.

FINDINGS AND DISCUSSIONS

Seed Spreading

After 10 days of media preparation and seedling, there were 4200 seedlings spread into ponds, with the following details:

$$
\begin{aligned}
V &= \pi \times r^2 \text{ X } T \\
&= 3.14\text{x } 1.5\text{m} \times 1.5\text{m} \times 0.80 \text{ cm} \\
&= 5.652 \text{ m}^3 = 5.6\text{m}^3
\end{aligned}
$$

The seeds that are stocked are 750 head x 5.6 m3 = 4,200 tails into a 3 meter diameter pond. Fish mass weight is calculated every week from spreading seedlings in the first week: size of seedlings stocked with a size of 8 cm with a mass data weight of 20 tail sampling. Looking for mass weight is the average sampling weight is the amount of mass weight / sampling. Overall mass weight is the result of the average

ISBN: 978-602-53420-4-2

sampling weight x total number of fish, to find the amount of feed per day is 0.3 x the overall mass weight. (Source; I Gusti Ngurah Lanang Dauh, S.E). So in this activity can be obtained: 1 kg of seeds of 100 heads so that the mass weight of 100 heads so that the mass weight per head is 1000 grams / 100 heads = 10 grams / head. Looking for overall mass weight = 10 grams x 4200 heads (total number of seedlings the size of a pond diameter of 3 meters) = 42kg, to find the amount of fish feed per day = 0.3 x 42 kg = 1.26kg. The amount of feed per day is divided into 2 namely morning and evening. Substitution of water is also carried out starting at the end of the second week and in the next initial method every 3 days the water is removed through the bottom of the pond as much as 20 cm from the surface then added with new water and sprinkled with probiotics in this case used probio 7 as much as 15cc and molasses as much as 30cc. This process is from calculating the mass and weight of fish and counting the amount of fish feed continuously every week until the mass of production is 2.5 to 3 months. The findings can be seen from the following table.

Table 1. Mass of Fish [with Biofloc Systems]

No	Information	Sampling	Sampling Weight (tail)	Average /tail sampling	Average/tail sampling	Total Mass Weight (kg)	Total feed (kg)
1	Spreading seedlings	20	200	10	0%	42	1.2
2	Week 1	20	300	15	50%	63	2.0
3	Week 2	20	420	21	40%	88.2	2.64
4	Week 3	20	560	28	33.33%	117.6	3.52
5	Week 4	20	710	35.5	26.7%	149.1	4.47
6	Week 5	20	870	43.5	22.5%	182.7	5.48
7	Week 6	20	1040	52	17.2%	218.4	6.55
8	Week 7	20	1220	61	17.3%	256.2	7.68
9	Week 8	20	1410	70.5	15.57%	296.1	8.88
10	Week 9	20	1630	81.5	15.6%	342.3	10.26
11	Week 10	20	1920	96	17.23%	403.2	12.09
12	Week 11	20	2240	112	16.6%	470.4	14.11
13	Week 12	20	2840	142	26.7%	596.4	17.89

Table 2. Mass of Fish [with Conventional Methods]

No	Information	Sampling	Sampling Weight (tail)	Average /tail sampling	Average/tail sampling	Total Mass Weight (kg)	Total feed (kg)
1	Spreading seedlings	20	200	10	0%	42	1.2
2	Week 1	20	280	14	40%	58.8	1.7
3	Week 2	20	380	19	31.5%	79.8	2.3
4	Week 3	20	500	25	31.5%	105	3.1
5	Week 4	20	600	30	20%	126	3.7
6	Week 5	20	840	42	40%	176.4	5.2
7	Week 6	20	960	48	14.2%	201.6	6.04
8	Week 7	20	1220	56	16.6%	235.2	7.05
9	Week 8	20	1260	63	12.5%	264.6	7.93
10	Week 9	20	1580	79	25.3%	331.8	9.95
11	Week 10	20	1900	95	20.2%	399	11.97
12	Week 11	20	2180	109	14.7%	457.8	13.7
14	Week 13	20	2820	141	21.5%	592.2	17.76
15	Week 14	20	2840	142	0.7%	596.4	17.89

Formulas:
Sampling Weight = Mass Weight Per Tail: Amount of Sampling
Average Per Tail Sampling = Total Sampling Weight: Number of Sampling

ISBN: 978-602-53420-4-2

Total Mass Weight = Amount of Sampling Mass Weight x Total Amount of Seeds stocked
Number of Feed Per Day = Total Mass Weight x 0.03

From table 2.1. (With Biofloc System) Total Mass Weight of Catfish at week 12 reaches 596.4kg while in table 2.2. (With Conventional Methods) seen at week 14 reaches the total weight mass of the same fish which is 596.4kg, so the conventional method requires more time long time, thus according to table 2.1 with conventional methods require more amount of feed compared to the biofloc system, it can be seen the average increase in catfish production per head by the biofloc method by 24.8% in 12 weeks, with a mortality rate of 5% from the start stocking of 4200 seedlings to 4000 tails and with yields of 4000 x 142 = 568 kg, whereas with conventional methods the average business group increased production by 22% within 14 weeks.

CONCLUSION

From the discussion above it can be concluded that the biofloc system is very helpful for catfish farmers in business continuity and provides a solution to the problem that is seen in increasing production growth with an average increase of 24.8% with a faster time of 12 weeks with a total mass weight of 596.4 kg, compared to conventional methods it takes 14 weeks with an average increase in fish production of 22% with a total mass of fish mass of 596.4kg so that it can be compared that the biofloc system is able to reduce the cost of feed by eating an average of 8.06kg/week. For 12 weeks while using the conventional method of eating feed amounted to 9.07kg per week for 14 weeks.

REFERENCES

[1] Darmawan, W. P. J. 2010. *Pemanfaatan Air Buangan Limbah Lele Dumbo Sebagai Media Budidaya Daphnia.* Sp. Skripsi. University Lampung.
[2] Gunarto dan Suwono, S. Hidayat. 2011. Produksi Bioflok dan Nilai Nutrisinya Dalam Skala Labotarium. *Prosiding Forum Inovasi Teknologi Akuakultural.*
[3] Herawati, V. E. 2014. Pengaruh Bahan Organik Kotoran Ayam, Bekatul, Dan Bungkil Kelapa Melalui Proses Fermentasi Bakteri Probiotik Terhadap Pola Pertumbuhan dan Produksi Biomassa *Daphnia* sp. *Journal of Aquaculture Management and Technology.* Volume 3, no 2.
[4] Hussain, Nasil; Putri, Berta; dan Supono. 2014. Analisis Rasio C : N Berbeda Pada Sistem Bioflok Terhadap Pertumbuhan Ikan Nila Merah (*Oreochronis Niloticus).* E Jurnal Rekayasa dan Teknologi Budidaya Perairan. Volume 3 no 1 Oktober 2014 ISSN : 2302 – 3600.
[5] Sitohang, R. V. Herawati, T dan Lili, W. 2012. Pengaruh Pemberin Dedak Padi Hasil Fermentasi Ragi (*Saccharomyces Cerevisiae*) Terhadap Pertumbuhan Bio Massa *Daphnia* sp. Jurnal Perikanan dan Kelautan. Vol.3 No.1 Maret 2012
[6] Bramasta. 2009. Teknik Pemijahan Ikan Lele Sangkuriang. http://hobiikan.blogspot.com/2009/01/teknik-pemijahan-lele-sangkuriang.html. (diakses 20 maret 2016) 1 : 1 kolom
[7] Darmawi, H. 2010. *Manjemen Risiko*. Jakarta : Bumi Aksara.
[8] Debertin, DL. 1986. *Agricultural Production Economics.* New York : Macmillan.
[9] Direktorat Jenderal Perikanan Budidaya. 2014. *Budidaya Lele Sangkuriang*. Direktorat Jenderal Budidaya. Departemen Perikanan dan Kelautan, Jakarta.
[10] I Gusti Ayu Agung Sinta Diarini, 2019. *Pendidikan Usaha Budidaya Lele & Produk Pengolahannya*. Sidoarjo, Uwais Inspirasi Indonesia.
[11] Djoko. 2006. *Lele Sangkuriang Alternatif Kualitas di Tanah Priangan*. Trobos. Jakarta. Agustus : 80 – 81.

THE IMPACT OF TOURISM IN THE VILLAGE OF SOUTH KUTUH KUTA BADUNG: ECONOMIC, SOCIAL CULTURAL, AND ENVIRONMENTAL PERSPECTIVES

[1]I Dewa Made Sutedja, [2]Putu Sugi Kurnia Dewi, [3]Dwi Sihwinarti

[1,2,3] Universitas Teknologi Indonesia
dewa.sutedja@yahoo.com

ABSTRACT

Badung is one of the regencies in Bali with various tourism objects and has become a source of government income. Government of Bali always tries to develop the tourism places in Bali. One of the examples where government develops Bali's tourism places is South Kutuh Kuta Village where one of the 6 villages in South Kuta district has many potential tourism places.The development of tourism in Kutuh Village has experienced significant progress and this has had both positive and negative impacts. So the purpose of this paper is to find out the impact of tourism in Kutuh Village, South Kuta from an economic, socio-cultural and environmental perspective.The positive economic impact of tourism is opening up business and employment opportunities and increasing the level of welfare of the people, while the negative impact is that the sale of several land areas of competitively owned land is relatively expensive and consumptive prices. In adidition, from Socio-cultural impact, the positive impact of tourism is the increasing of education, knowledge, national and International human relationship. On the other hand, the negative impacts of tourism in socio-cultural are land ownership shifting and the changing of job vacancy jobs. Moreover, the positive impact in environment is the changes of nature's condition, changes of environment that becomes tourism place, changes of life pattern. The negative impact of tourism for environment is traditional environmental pollution and other important issues. The solution needs "awig-awig" and "perarem" village and the support of all stockeholders and the community.

Keywords: *tourism development, impact, tourism, economic, socio-cultural, environment*

INTRODUCTION

Tourism is one of the industries that has a major influence in contributing to foreign exchange for a country including Indonesia. Therefore, to be able to develop tourism in Indonesia, several regions are competing to show special characteristics or places that attract tourists to visit the area. So it is with Bali, which is a model and pilot center in tourism planning and development in Indonesia. One of the places in Bali that is currently developing tourism is Kutuh Village. Kutuh Village is located in Badung Regency, Bali, offering superior panoramic beauty of the Pandawa beach and other tourist attractions that can hypnotize anyone who visits. The following is the number of tourist visits to the village of South Kutuh Kuta over the past five years.

Table 1.1. Number of Tourists Visiting Kutuh Village, South Kuta 2014-2019

Year	Domestic Tourists	International Tourists
2014	1.260.966	113.363
2015	1.530.140	122.854
2016	1.543.383	286.740
2017	1.674.211	291.324
2018	1.706.404	295.907
2019*	848.267	148.140

Source of data: Bumda (bhaga utsaha manunggal) South Kutuh Kuta
(*) From January to July 2019

ISBN: 978-602-53420-4-2

The number of domestic and International tourist is always increasing every year so that we need more in-depth research on "The Impact of Tourism in the Village of Kutuh, South Kuta, viewed from an economic, socio-cultural and environmental perspective" The purpose of the study or research in this case is to be able to explore, map and find out the positive and negative impacts of the tourism potential that is owned by Kutuh Village in southern Kuta.

METHODS

From the research's type, this study is explorative in nature because the aim of this research is to explore and find out the factors of causes and solution from the impact of potential tourism places in Kutuh Villlage. The object's research is th eimpact of the development of tourism destination. In this case, the researcher limits the research in economics apect, socio-cultural subject and environment based on its positive and negative.

The type of data sought is qualitative data in the form of descriptive and quantitative data types in the form of numbers. There are primary data sources obtained from the first source such as community leaders, the recording or bookkeeping and secondary data sources namely data or information that has been processed by the second side. Data collection methods used were observation by seeing, hearing and witnessing directly using the senses that were owned while documenting it. Then from all the data or information used was analyzed descriptively and qualitatively with various narratives.

The research framework in Figure 1 explains how tourism potential can increase tourist visits so that it affects the economic, socio-cultural and environmental sectors for the residents of Kutuh Village. According to Law number 10 of 2009 regarding Tourism, it is stated that tourist attraction is something that has a uniqueness, natural beauty, and value in the form of diversity of natural wealth, culture and man-made products that become tourist destinations. Attraction is also called a tourist attraction is a potential that drives the presence of tourists to a tourist destination. According to Suwantoro in his book the basics of tourism (1997: 19), he says that tourist objects and attractions can be grouped with natural, cultural and special interests. Broadly speaking, there are three kinds of tourist attraction or tourism potential (Marpaung 2005): natural potential or natural tourist attraction derived from nature, cultural tourism potential and man-made tourism potential. Likewise, stated by Pitana (2009: 6-78): resources related to tourism development are generally in the form of natural resources, cultural resources, special interest resources besides human resources.

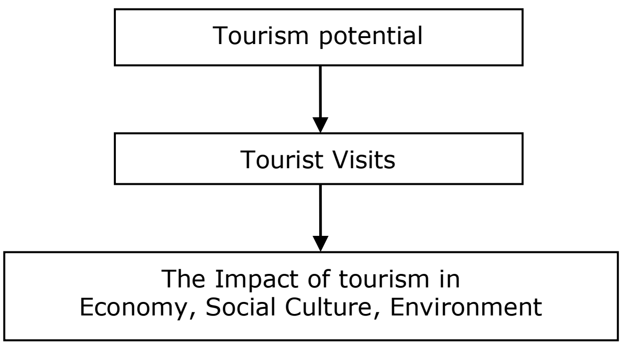


Figure 1. Research Framework

Whatever is done, there will be some causes and effects in the developing potential of tourism as a cause will have an impact on things that are generated both positively and negatively. According to Pitana and Gayatri (2005), the impact of tourism is the area of study that receives the most attention and highlights and impacts on the economy, socio-culture and the environment. Likewise, stated by Oka. A. Yoeti, 2008: 20-24), unconsciously, we do not know what exactly is happening as a result of the development of tourism as an industry both positive and negative impacts from the economic, socio-cultural and environmental perspective.

Economic impacts, according to Cohen, 1984, Leiper 1990 in the book Pitana, 2009, and also in the book Suwena, 2010 suggest that the impact of tourism on economic conditions can positively be in foreign exchange earnings, people's income, prices, business opportunities and vacancies for unemployment opportunities. Moreover, the other impacts are in the life development, infrastructure, village, regional and central government revenues. Meanwhile, the negative impacts of economic conditions according to Mathieson and Wall, 1982, Leiper, 1990 in Pitana 2009 and in the book Suwena, 2010 are that more dependence on the tourism sector, increasing inflation rates, trends for information, the nature of seasonal tourism, the emergence of additional costs, the scarcity of energy sources and the mismatch of local products.

Socio-cultural impact according to Oka A Yoeti, 2008, in developing tourism potential in a region is that there is a tendency to access all the potential to be able to attract more and more tourists, so that they stay longer and spend more money by commercialization and commodification of various things including a hotel built or tourist attraction which are close to the temple, some sell sacred dances and so on. The positive impacts such as: the level of education will be better, the level of community interaction with tourists, is growing, the growth of the development of arts and local customs, the occurrence of migration, the impact on the commodification of goods and services. However, the negative impacts in terms of social culture in the form of prone to crime, the commercialization of art culture, pollution of the environment, disturbance of temple sanctuaries and arrangement of trade areas becomes irregular.

Environmental Impact. The meaning of the environment according to ISO 14,000 is a condition or situation that involves traditional and other important issues in society. As for the traditional problems posed such as air emissions, waste disposal, drinking water supply, noise, odor and radiation disturbance, while other important issues are such as the use of products or land, disposal of products, security and safety and health.

FINDINGS AND DISCUSSIONS

Tourism Potential

Kutuh is one of the 6 villages in the South Kuta District, which is now a favorite place for both domestic and international tourists since the opening of the Pandawa beach in 2010. However, the leading products of tourism potential of Kutuh village are:

a Pandawa Beach does not only offer a clean white sandy sloping beach that has a beautiful panoramic view between two limestone hills, and is decorated with 6 statues of Panca Pandawa and Dewi Kunti’s, but also offers a place to swim, play canoe, do jogging with the provision of various amenities, tourists foreigners call this beach the secret beach (secret beach)

b Mount Payung Beach is located in 4.5 km East side from Pandawa Beach and there is a temple called the umbrella mountain temple near the left side of the road to the beach and this is basically called as umbrella beach.

c Beji Forest and Monkey Forest. Its size is approximately 5 hectares that offers forests with various types of shady and cool trees as well as a resting place for those who have traveled from several beaches. The air is still clean with a soothing breeze.

d Timbis Paragliding. Paragliding activities that costs Rp. 400,000/one time playing from the top of the hill also will show you the white sandy beach, umbrella mountain.

e The culture of kecak, barong and legong dance.
f Pandawa art market. Opened and inaugurated on March 23, 2019 by the adat village of Kutuh Village together with the Badung UK Cooperative.
g Special interests in sports, such as: jogging, marathon running, climbing cliffs and kampong ball.
h Religion and upakara art, the basic teachings of Hinduism are Tatwa, Susila and Upakara
i The community is tolerant and religious.
j Facilities (amenity) to support the needs and desires of tourists such as temporary accommodation, culinary, transportation, etc.
k Accessibilita (access), various doors to the tourist destinations in the village of Kutuh Kuta in the south are very easy and flexible such as from the airport to the village of Kutuh with a distance of 17 Km. The destination can be via the toll road, Bay pass or from Poultry with asphalt road access, Likewise, information is always available and updated every day.
l Ancillary service, the availability of transportation, tour guides, rental of swimming and sunbathing equipment as well as toilets and also telephone and ATMs, of course this is also very much needed not only by tourists but also the general public.

The Impacts of Tourism Development in Kutuh Village

The large number of tourism potentials in the Kutuh Village increases the visit of domestic and international tourists in the Kutuh Village. In terms of economic impacts, tourism impact the financial sector, investment, business and employment. All of these activities are used to build and encourage tourism facilities and infrastructure in Kutuh Village, the consequences of which have both positive and negative impacts.

Positive economic impacts include the development of village financial business units that have been managed along with the Kutuh Indigenous Bendesa Office such as: LPD (Lembaga Perkitanitan Desa) Business Unit, Managing Pandawa Beach, Managing the Payung Gunung business unit, Managing Paraglinding Timbis, Goods and services Business Unit, Art and culture business Unit in the form of performing arts, Yadnya business units and service business units such as fleet rental, ambulance, clinics, health and security; business opportunities in the village of Kutuh are still very open and to this day the unemployment rate is 0%; and the amount of income per capita in Kutuh Village for 2017 is Rp. 6,000,000 per year.

Meanwhile, negative economic impacts include the Increase number of people who came in 2017 where the number of migrants was 393 people and in 2018 to 537 people should be managed properly to avoid economic friction; increase in land prices as it is possible that the community will sell part of their land and use it for consumptive purposes; the repurposing of land is changed into a place of business, residential and lodging; and similarly, the prices of goods and services needed by the people are increasingly expensive.

In terms of social and cultural impacts, there are also positive impact that include the Increase of comunity's education in Kutuh Village from 2016-2018 was explained in the Village Monograph. In 2016 diploma education was 519 people, undergraduate education was 185 people, 6 people and 2 people. In 2017 diploma education was 515 people, undergraduate education (Bachelor Degree) was 196 people, Master Degree was 6 people and Doctor Degree was 2 people. In 2018, diploma education was 562 people, undergraduate education namely bachelor, 237 people, Master degree 12 people and Doctor degree 2 people. Additionally, the types of occupations of the inhabitants of Kutuh Village are seen from the Village Monographs data, so the types of jobs that are most engaged in are private employees, namely in 2016-2017 as many as 1,007 people and increased in 2018 to 1,589 people. This can happen because of the increasing business sector. There also has been an increase of places for worship such as prayer rooms, as well as art groups has formed some including Kecak dance, Barong, and Legong which are often performed at tourist attractions, as well as seke gong and beleganjur percents and angklung. There are also dancers, *makekawin* and *Piranta Yadnya*, which is an effort to provide facilities and infrastructure for *upekara* for Hindus.

Some negative impacts of tourism in terms of socio-economics include the transformation in the livelihoods of some residents from starting seaweed and fishermen now shift to the tourism industry sector. Even in village monographs in 2018, there was no longer included livelihoods / types of work as farmers; the disalocation of private land into public facilities such as roads, tourism facilities and infrastructure, residential areas, trade and accommodation; tocation of tourism facilities is to the temple; and the commercialization of culture dance.

Likewise, what happened in the village of Kutuh as a result of the development of tourism potential and also due to the arrival of tourists will certainly bring risks to the surrounding environment, especially for the community. Some positive environmental impacts include the chance for community to go to the beach is widely open and to the place of worship (temples); more shady trees because there are residential areas and lodging places; the number of population is everywhere due to development; the price and function of land is more valuable and useful; the opportunity for investors to enter the tourism industry sectors and also the opportunity for the community to sell a part of their land to be used for self-improvement; building infrastructure and other public facilities; and reducing the isolation of the people. Negative impacts include the price of land and goods is increasingly expensive, especially land related to the construction of lodging and culinary facilities; the community is interested in selling part of their land, which used to belong to the ancestors; management of messy buildings, such as sports facilities adjacent to the temple area; changing the cliff's natural scenery along the road to the beach into hotels and villas; incorrect use of sales proceeds towards consumptive; and the increase of waste pollution, especially plastic waste.

Solutions

Solutions to the challenges in regards to the impacts of tourism on Kutuh village also include economic, socio-cultural, and environmental aspects. In terms of economic development, there is a need for regulation regarding the sale of community land; to have local law (*awig-awig*) that limits people coming from outside of the community to come and go out from an environment, and continue guidance about how to manage the tourism destination. Socio-culturally, there should be rules on the limits of the holy sites with the construction of attractions for the loss of the temple and the people; there needs to be rules about performing arts for tourism; and keep preserving Balinese culture or customs. In terms of the environment, signs must be made prohibiting and limiting the sale and purchase of land as well as the distance between the temple pelabe and tourist sites; there is a need to make a waste disposal site; and lastly there is a need to collaborate with the park and forestry service.

CONCLUSION

From the main problem, the results and discussion obtained by the tourism potential of the Village of Kutuh, namely: the potential of natural tourism in the form of Pandawa beach, umbrella beach beach, Beji forest and Monkey forest. Potential of cultural tourism such as timbis parablinding, art market pandawa, religion and art upakara. Potential special interest tours such as jogging, marathon running areas and soccer fields are called kampongball. The number of tourist visits both the domestic and international countries in the past five years continues to increase. The impact of tourism which is a result of increased tourist visits, seen from the economic field has a positive impact in the form of more opening of business and work opportunities as well as the more prosperous of the community, while the negative impact is life competition and land price increases. From the socio-cultural field, the positive impact is related to the level of education, knowledge, association increasingly national and international, while the negative impact is a shift in land ownership and also land use change. From the environment, the positive impact changes in the natural situation and the community, while the negative impact is on environmental pollution.

It is recommended to increase positive things such as friendly to the guests who come, participate in maintaining environmental cleanliness and safety and be aware of various threats and disturbances that may occur. It is needed to use awig-awig and perarem. For the prosperity and independence of the Kutuh Village in the future, there is a need to give any attention and cooperation from stakeholders and related parties as well as tolerance from the community. Making programs that characterize the village of curse as one of the supporting factors for tourism such as reviving seaweed farmers, where the results can be processed by various types of food and other processed products that are beneficial to health.

REFERENCES

[1] Bagyono, 2005, Tourism and Hospitality, Alfabeta Publisher Bandung Burhan Bungin, 2005, Qualitative and Quantitative Research Methodology, Communication, Economics and public policy and other social sciences, Kencana Prenada Media Jakarta
[2] Monograph Data of Village and District of Kutuh Village in 2018
[3] Yoeti, Oka, 2008, Tourism of Economics, introduction, information and implementation, Kompas Publisher Jakarta
[4] Yoeti, Oka, 2007, Introduction to Tourism Science, publisher of Bandung's Space.
[5] Profile of Desa Kutuh in 2018
[6] Pendit Nyoman S, 2002, Tourism Science an Initial Introduction, publisher of PT. Paramita Jakarta.
[7] Pitana and Dianta, 2009, Introduction to Tourism Science, Adi Yokyakarta Publisher
[8] Juliansyah Noor, 2012, Thesis Research Methodology, thesis, dissertation and scientific work, Kencana Publisher Prenada Media Jakarta
[9] Wahab was wrongly translated by Gromang, 2003, Tourism Management, PT. Paramnya Paramita, Jakarta
[10] Haapy Marpaung, Herman, 2002, Introduction to Tourism, publisher of the Bandung Alphabet
[11] Richar Sihite, 2000, Tourism Industry, publisher of SIC, Surabaya
[12] Spillane James, 1987, Tourism Economics history and prospects, Yogyakarta Canisius Publisher

ISBN: 978-602-53420-4-2

CORRESPONDENCES OF CONCEPTUAL METAPHOR AND MAPPING COCEPTUAL ON ADVERTISEMENT: A COGNITIVE LINGUISTIC APPROACH

Ni Nyoman Tri Sukarsih[1], Ni Made Ria Indriyanthi[2]
[1,2,3] Universitas Dhyana Pura
*Corresponding author: trisukarsih@undhirabali.ac.id

ABSTRACT

This study aims at describing correspondences of metaphor and presenting conceptual mapping created from the correspondences found in advertisement. Method employed in this study is descriptive qualitative and the data was taken pusposively sampling technique by observation, note taking and documentation. Analysis conducted applied bottom-up approach started from an extensive data and be continued minimizes generalization data in business that suggesting global cognitive structure.The result shows that the implementation of metaphorical correspondence expression mapping conceptual in advertisement indicate the coexistence of hotel products and services and create a strong selling value of advertised on products and services.

Keywords: *correspondence conceptual metaphor, mapping conceptual, advertisement*

INTRODUCTION

Cognitive linguistic interacts with cognition, how language forms our thoughts and held the connection between language and the mind (Lakoff, 1998). Lakoff and Johnson (1980) argued that figurative language emerges from knowledge structures which reside in long-term memory. These knowledge structures are termed "Conceptual Metaphors", and there is a convention in terms of each mapping as "TARGET-DOMAIN IS SOURCE-DOMAIN" or "TARGET-DOMAIN AS SOURCE-DOMAIN." Moreover, (Xiaqing, 2017) claimed that advertising information is not an arbitrary moment of inspiration; an expression of information to achieve specific goals.

However, there is now study concerning correspondences of conceptual metaphor and mapping conceptual on hotel advertisement which is conceptualizing metaphor from cognitive approach. Therefore, this study attempts to show how conceptual metaphor and mapping play a crucial role in the correct interpretation of advertisements as powerful mechanisms to convey the central idea that the advertisers desire to convey. This study is carried out to show the existence of metaphor in a very closely applied on hotel advertisement.

METHODS

The method used in this study is the qualitative method proposed by Flick (2018: 9) states that qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. The qualitative method is used in the form of textual analysis in which focusing on types of metaphors from the three categories of conceptual metaphors (orientational, ontological, and structural). Besides focusing on types of metaphors, the qualitative method is also used to illustrate the conceptual mapping of those three categories of conceptual metaphors in Harris Hotel advertisements on Instagram supported by a cognitive linguistic approach proposed by Lakoff and Johnson (1980), particularly in the domain of lexical semantics that applies to conceptual metaphor.

The selection data were in the form of pictures and captions which were posted in Instagram account of Harris Hotel.

There are nine captions in a form of sentences, including its pictures which used metaphorical expressions from three Instagram accounts, but in this paper presented only two data. The data is firstly analysed by the classification of each Instagram advertisements which taken as the source data of the research. The classification of kinds of Ads whether it is a product or service, are categorized by analogous the meaning between the metaphorical expression in the caption and the Instagram picture that is posted. Meanwhile, the metaphorical mappings are classified based on the main phrase which becomes the main focus of the Ads. For example the Ads from Harris Riverview Kuta with caption, "*Can you feel the summer vibes?*" from the Ads, the main message which metaphorically expressed in a noun phrase *Summer vibes* which then it addressed as the source domain (SD) of the Ads, and this classification is also applied to all the Ads analysis.

Those nine captions were taken as main data because those captions consist of metaphorical expressions which could be analysed based on conceptual metaphor proposed by Lakoff and Johnson (1980).

Moreover, the researcher obtained data documentation from metaphorical expressions used in the post of Harris Hotel advertisements on Instagram. In addition, the technique used in collecting the data is a purposive sampling technique in selecting main data based on certain considerations which are dealing with the purpose of the study (Creswell, 2012: 68). It is used in the present study due to considerations that not all data can fulfill criteria as main data and suit the purpose of the study.

The steps collecting data are as follows: 1) reading advertisement captions which are posted on the Instagram account of Harris Hotel Seminyak, Harris Hotel Denpasar, and Harris Hotel River View Kuta; 2) selecting captions which use metaphorical expressions in advertising Harris Hotel. The captions used are in the form of clauses or sentences which later the metaphorical domain coding would base on the phrases which become the main focus in the caption message; and 3) screenshotting captions include pictures which are selected as main data.

The data was then analyzed descriptively based on the theory of conceptual metaphor proposed by Lakoff and Johnson (1980); theory of pictorial and multimodal metaphor category by Forceville (2007; 2008; 2009) and the theory of conceptual mapping. The technique in analyzing data was 1) discovering the source and the target domain of metaphorical expressions used on Harris Hotel advertisements by using the theory of conceptual metaphor proposed by Lakoff and Johnson (1980); 2) applying a theory to classify all data to three main genres of conceptual metaphor i.e. ontological, orientational, and structural metaphor then mapping the data.

FINDINGS AND DISCUSSIONS

This study shows the power of metaphor in hotel's advertisement and the central idea of the study correspondence to model of conceptual metaphor and conceptual mapping.

Technically, the abstract domain is referred to as the "Source Domain (SD)", while the concrete domain is referred to as the "Target Domain (TD)". From the concrete domains, literal words and expressions are drawn to represent abstract concepts. Lakoff and Johnson (1980) identify three main categories of conceptual metaphors: 1) orientational metaphor, a system of ideas is organized in the relation and interaction in space like up-down, inside out, front-behind, shallow-deep, and center-periphery that are related to the orientation in space; 2) structural metaphors are considered as the group with the highest number of abstract experiences are conceptualized based on the experience of simple and specific experiences; and 3) ontological metaphor, experienced in an interactive process with the specific object or substance is the foundation for a wide variety of conceptual metaphors in which events, activities, feelings, ideas etc. are considered as the essence.

ISBN: 978-602-53420-4-2

The empirical data of conceptual metaphor analysis in the Instagram advertisement of Harris Hotel with the caption “Can you feel the summer vibes?” This metaphorical expression on advertisement aimed at showing the imagination about what summer vibes feel by the viewers. Through the visual expressed on Instagram picture in the advertisement, the tropical atmosphere is conceptualized through the SD coconut trees, where coconut trees only could grow in a tropical island analogous to TD summer vibe is well depicted through bright blue skies and sun rays as the visual background of the advertisement. This kind of metaphor is categorized as an ontological metaphorical sense, the caption is depicted in the metaphor, can be mapped into “SUMMER IS COCONUT TREE”, could be seen through the background picture and the advert would like to convey a meaning that their guests could experience the summer vibes during their holiday in Bali.

The correspondence ‘Egg’ categorized as orientational metaphor, since its concept of idea related and interact to the orientation of space.

Figure 1. Data 1: *“Grey skies? We’ll take our eggs sunny side up then.”*

The phrase ‘grey skies’ metaphorically express the ideas inference of a set of dull or tired and sad feeling. The pronoun ‘we’ is an expansion meaning of the metaphorical meaning into the hotel’s customers or guests who have breakfast, and the verb take still deploys the same meaning as an action to eat it, the phrase our eggs metaphorically has wider meaning in this statement as the common hotel’s breakfast menu, and the last phrase ‘sunny side up’ has inferred to sunny skies metaphorically expression, instead of defining it as its literal meaning as (of an egg) fried on one side only which sometimes served on banquet event order. A phrase “sunny side up” literaly means a sun that coud give us energy correspond metaphorically to a food that could make us fit or fresh as that food give us an energy.

In general, everybody knows and understands that hotels provide sunny side up eggs as one side cooked on eggs of their breakfast menus, it was a familiar and common to have that kind of breakfast every day at every hotel. A common people or customers think what the relation between the caption grey skies and sunny side up eggs is, but might not be able deeply relate to the meaning of the visual and the caption metaphorically expressed, but it can still be mapped into “IDEA IS FOOD”. This metaphor expression shows the conceptual meaning of implementation of metaphorical correspondence expression in advertisement indicate the coexistence of hotel products (food) and create a strong selling value of advertising the products.

Next, data was the correspondence of SD ‘room’ is categorized as orientational metaphor, since the concept is organized in the relation and interaction in space of

ISBN: 978-602-53420-4-2

center-periphery. It is seen from how correspondence SD ‘room’ is analogous to ‘comfort zone’.

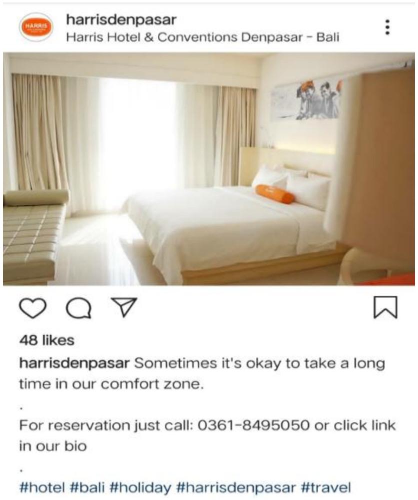


Figure 2. Data 2: *"Sometimes it’s okay to take a long time in our comfort zone."*

The adverb frequency sometimes is defined as an occasional time frame which not usually happenned, but once in a while. The phrase it’s okay metaphorically means no worries to be concerned. The verb ‘to take’ analogous to have, and the phrase a long time is defined as a long period of time or to be remaining in a same state for a long time. The phrase in our comfort zone metaphorically express a wider meaning in this ads’ as the hotel room, instead of defining it as a place where one feels comfort and safety. The phrase comfort zone is well received as a zone or a place that as safe as or comfort as Harris Hotel room.

Mapping conceptual "COMFORT ZONE IS HOTEL ROOM" was also depicted through the visual interpretation where the primary subject comfort zone shown and the second subject is hinted hotel room by the context. The image of comfortable and quite hotel room with comfy queen size bed became the focus of the advertisement which triggered the viewers’ prior knowledge of domain "COMFORT ZONE" which hinted in the second subject.

This metaphor expression indicates the implementation of metaphorical correspondence expression in advertisement indicates the coexistence of hotel services (comfort room) and result a strong selling point of advertising the services.

CONCLUSION

Conceptual metaphors typically employed a more abstract concept as source target (TD) and a more concrete or physical concept as their target domain (TD). Conceptual mapping is the systematic set of correspondences that exist between constituent elements of the source and the target domain. In order to know a conceptual metaphor is to know the set of mappings that applies to a given source-target pairing. The same idea of mapping between SD (abstract concept) into TD (concrate concept) is used to describe analogical reasoning and inferences. Mapping conceptual sometimes also happened undirectional, but still can be used to map certain conceptual properties to create a new understanding of the target domain. The mapping took place at the conceptual metaphor level that is suggesting global cognitive structure.

ISBN: 978-602-53420-4-2

REFERENCES

[1] Creswell, J. W. 2012. *Research Design: Qualitative, Quantitative, and Mixed Method Approaches* (4th ed). SAGE Publication Ltd.

[2] Flick, U. 2018. *Designing Qualitative Research* (2nd Editio). Retrieved from https://books.google.co.id/books?id=m75SDwAAQBAJ&printsec=frontcover&hl=id&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false viewed on 23 March 2019.

[3] Forceville, C. 2017. *Visual and Multimodal Metaphor in Advertising: Cultural Perspectives. Styles of Communication*, *9* (2), 26–41. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ufh&AN=123700279&site=ehost-live viewed on 15 February 2018.

[4] Lakoff, G. 1992. *A Contemporary Theory Of Metaphor*. *In Metaphor and Thought* (2nd Editio, pp. 58–106). https://doi.org/10.1163/ej.9789004150959.i-398.24. Viewed on March 16, 2019.

[4] Lakoff, G., & Mark Johnson. 1980. *Metaphors we live by*. In *Language, Thought, and Culture* (pp. 124–134). Chicago: The University of Chicago Press.

[5] Xiaqing, L. 2017. *Analysis of Metaphor in Ads From Cognitive Perspective*. *Advances in Social Sciences Research Journal*, *4* (7), 153–163. https://doi.org/10.14738/assrj.47.2816, viewed on 24 January 2018

ISBN: 978-602-53420-4-2

ANALYSIS OF CANOE MODEL'S EXTENT OF SATISFACTION AND EXTENT OF DISSATISFACTION IN THE IMPLEMENTATION OF AUGMENTED REALITY LEARNING IN BALINESE SCRIPT

Gerson Feoh[1], Christian Tonyjanto[2], Rheza Paleva Wiryadikara[3]
[1,3]Computer Science, Universitas Dhyana Pura, [2]Information Systems, Universitas Dhyana Pura
gerson.feoh@undhirabali.ac.id[1] christiantonyjanto@undhirabali.ac.id[2]

ABSTRACT

This study aims to analyze the implementation of Augmented Reality (AR-Learning) in the learning of Balinese Script in elementary school age students. The Balinese script as one of the regional scripts that has become one of the regional writings to be introduced compulsorily to school children from elementary school through high school in the province of Bali. The conventional learning model introducing Balinese Script is often unsuccessful due to the lack of interesting process of introducing and learning the Balinese Script. For this reason, alternative learning methods using technology can be implemented, one of which uses Augmented Reality, or better known as AR-Learning. By utilizing Android-based smartphones, learning Balinese script will certainly be more fun for elementary school students. In this study, students of grade 3 SDN 1 B.B Agung used a case study in this research. For this reason, the Extent of Satisfaction and Extent of Dissatisfaction methods in the Kano model are used in the analysis of this study.The results of this study are the scatterplot of each satisfaction index and dissatisfaction index on the implementation of Balinese Android-based learning with Augmented Reality technology using the Kano Model to categorize the attributes of AR-Learning user satisfaction.

Keywords: *Balinese Script, Augmented Reality, Extent of Satisfaction, Extent of Dissatisfaction, Canoe Model*

INTRODUCTION

As one of the cultural heritages that is still introduced to this day and regional writing that must be submitted to school children both from elementary to high school level in the Province of Bali, interest in reading and writing Balinese script, in order to increase spending. It is interesting not only that the Balinese script learning method is less interesting in the process of introducing Balinese script, but also the media used still relies on books. The learning process that is currently being implemented at SDN 1 B.B Agung can be seen in Figure 1 below.

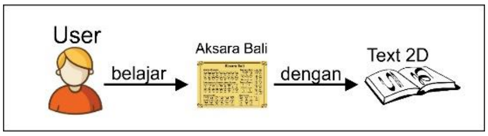


Figure 1. Balinese Script Learning Method at SDN 1 B.B Agung

Along with the development of technology, in addition to books that contain text and images, there are currently also types of books that can be integrated with technology, one of which is Augmented reality (AR). The first time the idea of AR was applied to a book called Magic Book that was researched by Bilinghurst, Kato and Poupyrev [1]. Augmented reality (AR) is a technology that combines two-dimensional and three-dimensional virtual objects into a real three-dimensional environment and then projects these virtual objects into real time [2]. AR is used to increase user perception in reality and help users to perform certain tasks. Currently there are many

AR applications used in various fields, such as education, entertainment. The development of media to introduce Balinese script has attracted several researchers with the aim that the Balinese script is more interesting, easy to read, and studied in the form of a mobile application. One of them is a mobile application for introducing Balinese script into Latin letters based on Augmented Reality developed by Pande Putu Gede Putra Pertama [3]. In this study, the authors used the Extent of Satisfaction and Extent of Dissatisfaction methods in the Kano model in the analysis so that it can be seen is the scatterplot of each satisfaction index and dissatisfaction index on the implementation of Android-based Balinese Script learning with Augmented Reality technology using the Kano Model to categorize the attributes of the AR-Learning user satisfaction attributes.

METHODS

Method of collecting data

The types of data collection used in the study are as follows:
1. Observation
2. Interview
3. Literature Study

Types of Data Used

1. Primary data: The authors take data about the Balinese script on the website http://www.babadbali.com. This website contains an explanation of the Balinese script and form of writing. The writer of this website is also from the Balinese script experts, Ida Bagus Adi Sudewa. The research is focused on general information about Balinese Script.
2. Secondary Data: In this study the authors used books and journals about Balinese Script, Augmented Reality, Android, Canoe Model, USE Questionnaire Model.

Characteristics of Respondents

In this study the respondents were grade 3 students and Balinese language teachers for the 2017/2018 school year at SDN 1 Baler Bale Agung with a population of 41 people.

Sample Determination

Determination of the sample in this study using the number of population with the formula Slovin [5].

$$n = \frac{N}{1+Ne^2} = \frac{42}{1+42(0{,}1)^2} = 29{,}6 = \ 30\ samples$$

Note:
n = sample size
N = population size
E = the level of fault tolerance, in this study determined 10%

The sample size of the Kano model that must be met in this study is a minimum of 30 sample users. Characteristics of respondents can be seen in Table 1 below.

Table 1. Characteristics of Respondents

No.		Characteristics	Amount	Percentage (%)
1		Gender : Male Female	 14 16	 46,7% 53,3%
			30	100%

From the results of filling out the questionnaire, the authors used 10 samples to test the validity and reliability of the questionnaire statements that the authors used in this study using the IBM SPSS Statistics V.25 tool. In this validity test, if the Pearson correlation is positive and the magnitude is more than 0.3 then the item in question is declared valid, if the value is less than 0.3 then the item in question is declared invalid and removed from the questionnaire or replaced with a statement of improvement. From the results of the validity test it was found that all the questionnaire statements were valid R. Critical above 0.3 and the reliability test found that all the questionnaire statements were reliable with Cronbach's alpha above 0.7 which was 0.989.

FINDINGS AND DISCUSSIONS

To determine the attributes of the application that need to be upgraded and which attributes were satisfactory in using the application, questionnaires were distributed to the 30 respondents, from whom the authors obtained the results of the recapitulation of the Kano model in Table 2.

Table 2. Recapitulation of the Canoe Model

Dimension	Atribute	Grade
Speed	S1	I
	S2	O
	S3	A
	S4	M
Homepage	H1	I
	H2	I
	H3	I
	H4	M
Content	C1	I
	C2	M
	C3	I
Context	K1	I
	K2	I
	K3	M
Usability	U1	I
	U2	I
	U3	I
Readibility	R1	I
	R2	I
	R3	I
Data Mobility	DM1	I
	DM2	A
	DM3	I
Accuracy	A1	I
	A2	I
	A3	I
Public Service	PS1	I
	PS2	I
	PS3	I
Platform Usage	UP1	I
	UP2	I
	UP3	I
Hits	HI1	M
	HI2	I
	HI3	I

From the results of the Kano Model tabulation in table 2, it is known that the level of satisfaction with the application of Android-based Augmented Reality in learning Balinese Script as shown in Table 3.

Table 3. Satisfaction Level of Application of Android-Based Augmented Reality

Atribute	Canoe Model Category
A. Open the start of the application	*Indifferent*
B. Open the application content	*Indifferent*
C. Information search results	*Must-be*
D. Download data	*Attractive*
A. Application Name	*Indifferent*
B. Menu Structure and Display	*Indifferent*
C. Application Functions	*Indifferent*
D. User interaction with the application	*Must-be*
A. Application Quality	*Indifferent*
B. Relevant Application	*Must-Be*
C. Benefits of application content	*Indifferent*
A. Have a link with other related applications	*Indifferent*
B. Application content according to purpose	*Indifferent*
C. There is information about using the application	*Must-Be*
A. There is a communication room	*Indifferent*
B. Quality of Service Interaction	*Indifferent*
C. Easy to understand display (user friendly)	*Indifferent*
A. Easy to read, understand (information available)	*Indifferent*
B. Color and layout of the text	*Indifferent*
C. Using Indonesian	*Indifferent*
A. Information and data are always in accordance with the Balinese script taught	*Indifferent*
B. Balinese Script Data	*Must-be*
A. Sharp and reliable scan results	*Indifferent*
B. The Scan Results of the Content can be Responsible	*Indifferent*
C. Right on target	*Indifferent*
A. Application Information	*Indifferent*
B. Complete information	*Indifferent*
C. Application Services and Complaints	*Indifferent*
A. Smartphone Device Support	*Indifferent*
B. Support the Android operating system	*Indifferent*
A. Number of Visitors	*Must-Be*
B. There is an Interaction with the Author	*Indifferent*
C. There is a Author account	*Indifferent*

After calculating and analyzing the classification of the canoe category, the number / value of the canoe category obtained for each respondent is obtained. The next step is to determine the highest requirements of each item, then calculate the percentage and extent of satisfaction / dissatisfaction of each item by using the following formula:

Presentase : $\boxed{\dfrac{Grade \; x \; 100 \,\%}{Total}}$.

Extent of satisfaction : $\boxed{\dfrac{A+O}{A+O+M+I}}$.

Extent of dissatisfaction : $\boxed{\dfrac{O+M}{(A+O+M+I)\; x\; (-1)}}$

So that the calculation results are obtained as shown in Table 4.

ISBN: 978-602-53420-4-2

Table 4. Extent of Satisfaction and Extent of Dissatisfaction

Atribute	SI (%)	DI (%)
S1	0,03	-0,37
S2	0,63	-1
S3	0,63	-0,27
S4	0	-0,67
H1	0	-0,47
H2	0	-0,4
H3	0	-0,3
H4	0	-0,6
C1	0	-0,37
C2	0	-0,57
C3	0	-0,37
K1	0	-0,4
K2	0	-0,23
K3	0	-0,6
U1	0,03	-0,23
U2	0	-0,33
U3	0	-0,27
R1	0	-0,23
R2	0	-0,17
R3	0	-0,17
DM1	0	-0,3
DM2	0	-0,43
DM3	0	-0,23
A1	0	-0,2
A2	0	-0,27
A3	0	-0,33
PS1	0	-0,2
PS2	0	-0,23
PS3	0,03	-0,3
UP1	0	-0,17
UP2	0,03	-0,17
UP3	0	-0,27
HI1	0,23	0,73
HI2	0,03	0
HI3	0	0

The results of the Extent of Satisfaction and Extent of Dissatisfaction tables are then compared in the form of scatterplot charts as shown in Figure 2.

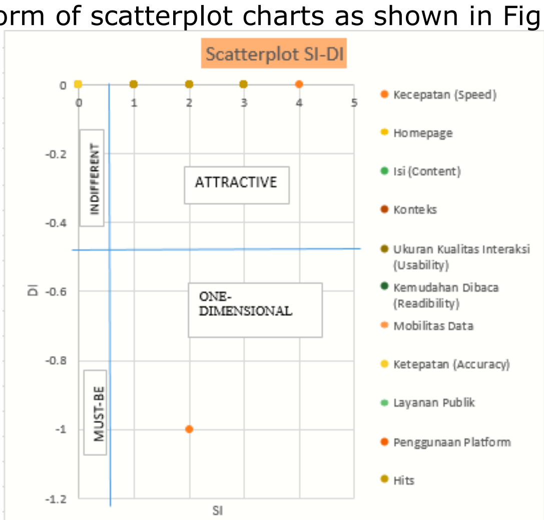


Figure 2. Canoe Model Attribute Diagram

CONCLUSION

For the Kano model, none of the attributes are in the must-be category, where the application can be categorized as fulfilling the user's needs. For attribute speed in scatterplot, it is categorized as one-dimensional or performance needs, so when it is expected that the speed in translating markers from cards into the Augmented Reality animation that appears on a smartphone does not require a long time. For other attributes included in the attractive category, where the level of user satisfaction has reached the highest satisfaction on application performance and will not affect the user's opinion even though there is a decrease in application performance.

REFERENCES

[1] A. K. Wahyudi, R. Ferdiana and R. Hartanto, "Pengujian Dan Evaluasi Buku Interaktif Augmented Reality ARca 3D," 2014.

[2] I. G. A. Nugraha and I. K. G. D. Putra, "Rancang Bangun Aplikasi Android AR Museum Bali : Gedung Karangasem dan Gedung Tabanan," 2016.

[3] P. P. G. P. Pertama, Suyoto and T. Suselo, "Pengembangan Aplikasi Mobile Pengenalan Aksara Bali Kedalam Huruf Latin Dengan Augmented Reality," in *Seminar Nasional Teknologi Informasi dan Komunikasi 2015 (SENTIKA 2015)*, Yogyakarta, 2015.

[4] P. D. Arista, "Pengembangan Brosur Interaktif “ARYappi” Berbasis Augmented Reality Sebagai Media Iklan SMK Yappi Wonosari," 2016.

[5] Y. N. Jayanti and M. L. Singgih, "Peningkatan Kualitas Layanan Pengujian Dan Kalibrasi Peralatan Kesehatan Dengan Menggunakan Integrasi Servqual Method, Kano Model Dan Quality Function Deployment (QFD) (Studi Kasus : Balai Pengamanan Fasilitas Kesehatan Jakarta)," in *Prosiding Seminar Nasional Manajemen Teknologi XVI* , Surabaya, 2012.

[6] I. W. Pantiyasa, "Jurnal Ilmiah Hospitality Management," 1 Juli - Desember 2013. [Online]. Available: http://ejournal.stpbi.ac.id/index.php/JIHM/article/viewFile/48/46. [Accessed 10 Maret 2019].

[7] S. Defiyanti and D. C. Pardede, "Perbandingan Kinerja Algoritma ID3 Dan C4.5 Dalam Klasifikasi Spam-Mail," 2014.

[8] Jogiyanto, Analisis dan Desain, Yogyakarta: Andi, 2005.

[9] Witarto, Memahami Pengolahan Data, Jakarta: Bumi Aksara, 2008.

[10] C. P. Yanti, "Aplikasi Augmented Reality Untuk Informasi Kebudayaan Bali Berbasis Android," 2016.

[11] J. Han and M. Kamber, Data Mining Concept and Tehniques, Berlin: Springer, 2011.

COPING STRESS FOR OVERCOMING ANXIETY IN PARENTS OF CHILDREN WITH SPECIAL NEEDS

Ni Nyoman Ari Indra Dewi[1]
[1]Psychology Study Program, Faculty of Health Science and Sciences, Dhyana Pura University
ariindradewi@undhirabali.ac.id

ABSTRACT

Every parent has positive expectations for their children, but sometimes not all children have optimal growth and development, causing children to experience developmental disorders and become special needs. Developmental disorders experienced by children make parents become prolonged stress can continue to be anxiety for parents. Anxiety if not treated it will become severe and have an impact on the whole family, especially children. To avoid worsening anxiety, parents of children with special needs need to have a coping stress strategy. The problem examined in this study is the role of coping stress in overcoming anxiety in parents of Children with Special Needs. The research method used is qualitative using interview and observation techniques, with the aim to determine the role of coping stress parents of children with special needs in dealing with anxiety. Respondents in this study are: Parents with Children with Special Needs aged 2-7 years. The results showed that the Parents of Children with Special Needs use coping stress in overcoming emotional-focused anxiety such as, positive thinking by accepting the situation with sincerity and grace, sharing concerns with others, accepting conditions as part of life's journey. Meanwhile, coping with stress that focuses on the problem

Keywords: *Parents, Children with Special Needs, Coping With Stress, Anxiety*

INTRODUCTION

Every parent who has children must have positive expectations for their child's development. Parents expect optimal child growth and development according to their age, but not all parents are fortunate to have normal children with optimal growth and development so that children will be labeled as having special needs in all aspects of their development. The existence of children with special needs in the family, of course not an easy thing for parents. Parents who have children with special needs have different interactions with parents who have normal children. The presence of children with special needs gives its own color and excessive burden for parents, because they will directly carry out special and intensive handling of various aspects (language, behavior, physical, and sensory) since the child is diagnosed as experiencing developmental retardation. The treatment of children with special needs also requires no small cost. Parents will also handle various obstructed behaviors from children with special needs such as hyperactivity, aggressiveness, difficulty concentrating, independence, tantrums to like to hurt themselves, including difficulty communicating so that it makes it difficult for parents to explain to children about their daily needs.

Developmental disorders experienced by a child during their growth and development can be psychological stress felt by parents. Strees felt by parents will continue to be anxious and if left untreated will have an impact on parents and all family members. Therefore, parents need to learn to manage negative emotions by using certain coping strategies. Depressed circumstances will certainly require parents in overcoming the problems encountered. All problems faced by having children with special needs must get a solution. The problems encountered require solving as an effort to adapt to the problems and pressures that befall them. The concept of solving problems is mentioned by coping stress.

According to Moerdiani, it is undeniable that parents with children with special needs at first will not easily accept the fact that their children have developmental retardation [1]. Doctors and mental health professionals observe that when parents find out their children are experiencing developmental retardation, the reactions that emerge are feelings of shock and confusion, from these reactions emerge feelings of guilt, disappointment, shame and cannot accept reality.

Anxiety is a state of apprehension or state of worry that complains that something bad can happen [2]. As experienced by parents of children with special needs are often anxious about the future of children because of their limitations will make it difficult for children with special needs to get a bright future [3].

Coping stress is a person's behavior or behavior when facing pressure, therefore coping stress is a response and strategy that is carried out on stress to tolerate and reduce the negative effects of pressure. The way to do this is to set the distance with the demands in life both from within the individual and from outside the individual, with the ability and resources to meet existing demands. According to Takeichi, et.al., when a person experiences stress, external psychology, individuals will give a subjective meaning to the stress experienced and anxiety ensues [4]. Anxiety occurs when there is uncertainty and instability in the elements of human life.

When responding to problems people can do with problem focused coping (PFC) and emotion focus coping (EFC) [5]. The way someone in dealing with problems can affect the anxiety experienced. There are four basic causes of someone experiencing anxiety, among others, confusion about the situation, the uncertainty about a thing, the uncertainty of a situation, the state of being unable and helpless as well as feelings of revenge and sentiment. The stress coping aspects of problem focused coping are confrontative, seeking social support, planful problem solving [5]. While the emotional focused coping aspects are self control, distancing, positive reappraisal, accepting responsibility and escape or avoidance.

Carson said that the term stress generally refers to two things, namely the adjustment demands placed on the organism and the organism's biological and psychological internal responses to various demands [4]. Behavior in dealing with problems, pressures and challenges is called coping stress. Manage the distance between the demands that come from within and from outside themselves with the ability or resources possessed to overcome the demands.

METHODS

This type of research is to determine the type of coping stress used by parents and children with special needs in dealing with anxiety. Qualitative data collection methods include interviews and observations.

FINDINGS AND DISCUSSIONS

W respondent experienced symptoms of anxiety in the form of tension, not calm, insomnia, to cry and wake up in the middle of the night. The future of the child becomes a burden of thought for W. Anxiety arises when the child is exploited because of his shortcomings and thinks about who will take care of the child when he is old. As a result of anxiety experienced by W, his physical impact becomes easily tense, difficult to sleep, until his chest feels tight when listening to other people talk about his child's development. W coping stress to cope with the stress experienced by moving the child away from his friends and try to think calmly so that he can accept the current situation by being patient positive thinking about the circumstances experienced by children.

Respondent K, the prominent symptoms of anxiety are anxiety, bad thinking, sadness which causes physical tension such as dizziness, headache, feeling lethargic, unable to rest calmly and insomnia. The underlying factor for the occurrence of anxiety is a sense of worry about the development of a child that is different from other children.

K is also worried about the future of children when they grow up. Anxiety has an impact on the physical like sleeplessness because of thinking about children, dizziness and headaches. K overcome anxiety by coping with stress by changing mindsets such as realizing that a different child is different from a normal child. K also thinks calmly accepting the condition of the child sincerely as a destiny from God. When you are tired, K does fun activities like walking around town, watching TV, exercising and caring for pets.

Respondet U was worried about the child's future development because it was different from other normal children. As a result of anxiety symptoms that stand out are tension, difficulty sleeping and lost focus when doing activities so that making unnecessary mistakes to lose interest in doing activities. U overcome anxiety by using coping stress by changing the mindset to be more positive that there are other people who have a worse life than their lives. Trying to think relax by not worrying about negative things that don't necessarily happen, and accepting the child's condition gracefully. When you feel tired U will tell her burden to her husband Children continue to undergo therapy in the hope of positive development.

Respondent N was worried about the child's condition especially with his future because he would depend on others and not be independent either. Hope N is a child can develop with other normal children. The prominent symptoms are tension, difficulty sleeping and easy to feel tired when thinking about the child's condition. N overcome anxiety by using stress coping to change your mindset by not worrying about negative things that are not certain to happen. Thinking that what happens to children is a destiny from God and trying to accept gracefully as part of life that must be lived.

Respondents S feel anxious about the future conditions of the child including the school fees needed for children's schooling, as well as the anxiety of the child experiencing bullying. S experiencing tension with physical symptoms of difficulty falling asleep, often waking up in the middle of the night, sleeping soundly and not eager to carry out activities. S coping stress that is done to overcome his anxiety is to change the mindset to be more positive, such as trying to think that there are still people who want to be friends with children, strengthen themselves to be patient and accept the child's condition gracefully and sincerely. When S feels the excessive burden being carried out is telling a husband. Aside from doing this business, S continued to include his child in a therapy center for children with special needs.

CONCLUSION

Based on the results of interviews conducted, respondents obtained stress coping by using Emotional Focus Coping, which is coping which focuses on all efforts to reduce various negative emotional reactions to anxiety experienced by parents with Children with Special Needs. Lazarus and Folkman said that coping that focuses on problems would actually be more effective if solved by coping that focuses on problems (Problem Focused Coping) [5]. Whereas coping that focuses on emotions (Emotional Focus Coping) is used in difficult situations that are impossible to change. Parents with children with Special Needs realize that the condition of Children with Special Needs cannot be changed like normal children in general. Parents are more focused on overcoming anxiety by controlling themselves and feelings, re-evaluating positively such as accepting conditions with a field and sincerity as part of life's journey, and telling all the burden to the closest person. When the respondent, in this case, is a parent with a child with special needs, experiences stress and an uncomfortable feeling arises which results in anxiety, then try to overcome it by coping stress which leads to neutralize negative emotions.

From the results of interviews with respondents, it is recommended for parents of children with special needs to keep trying to use stress coping strategies that focus on problems (Emotional Focus Coping) to continue to help the child's development to be more optimal in his capacity as a child with special needs. Additionally, for the environment it is recommended to continue to provide physical and psychological support to parents with children with special needs, because parents with children with special needs are vulnerable to psychological stress, especially anxiety. Lastly, for further researchers, can add the number of respondents and use different research methods, for example by quantitative, experimental and using different variables

REFERENCES

[1] Widyatno A.,Atmoko A,.Viatrie I D,. (2018). *Relationship between Stress Level, Emotional Maturity, and Type of Coping Behavior of Parents of Children with Special Needs in Malang City*: Jurnal Sains Psikologi, 7 (1), (110-118)

[2] Nevids, J.S., Rathus, S.A., & Grenne, B. (2005). *Abnormal Psychology*. Volume I, fifth edition. Jakarta: Erlangga.

[3] Ariesta. (2016). *Parents Anxiety About The Carrer of Children With Special Needs*. E Journal of Guidance Counseling. 4th edition 5 years.

[4] Yudiati E., Rahayu E., (2016). *Relationship Between Coping Stress and Anxiety in People with HIV / AIDS Who Underwent Blood Tests and VCT (Voluntary Counseling Testing)*. Psikodimensia, 15 (2), (337-350).

[5] Lazarus, R.S & Folkman S. 1984. *Stress, Apprasial and Coping*. New York : Springer

THE IMPLEMENTATION OF TOKEN ECONOMY TO IMPROVE THE RESPONSIBILITY OF EARLY CHILDHOOD'S BEHAVIOR

Elizabeth Prima[1], Putu Indah Lestari[2]
[1,2] Universitas Dhyana Pura
elizabethprima@undhirabali.ac.id

ABSTRACT

This study aims to analyze the improvement of early childhood responsibility behavior through Token Economy. Responsible behavior is the foundation of character building that is important to be developed. Children who are accustomed to responsible behavior tend to grow up to be disciplined in every aspect. Therefore, behavioral fostering of responsibility should begin at an early age because it will determine the child's responsibility when they mature. This study was conducted in group A of Denpasar Kindergarten in 2018/2019 Academic Year. It employs Classroom Action Research using observation method. The subjects of this classroom action research consisted of 17 children aged 4 to 5. The object of this study is the implementation of Token Economy to improve the behavior of early childhood responsibility. The results obtained in First Cycle showed that 10 children (58.82%) had reached completion, while in second cycle 14 children (82.35%) achieved completion. From the first and second cycle, there was an increase in responsibility behavior of 26.53% through the implementation of Token Economy. It appears that the implementation of Token Economy can improve the behavior of early childhood responsibility.

Keywords: *token economy, responsibility, early childhood*

INTRODUCTION

Aspects of children's development are significant to be developed so that they grow in a balanced and optimal way from one aspect to another. Some of them that need to be developed are social and emotional development aspects of children. Positive social and emotional development will make it easier for children to learn better and succeed in all activities at school and in daily life. Hamalik states that, a student is said to be successful in learning if he can develop the ability of knowledge and the development of attitudes or behaviors in his daily life [1]. One of the social and emotional developments that need to be developed is to be responsible. This is also supported by the assertion that the attitude of responsibility is a character that should be instilled as early as possible [2].

The development of responsible behavior needs to start as early as possible starting from the family, the educational environment, and the community environment. Parents and teachers have an important role in developing responsible behavior in early childhood. Lickona states that the development of responsible behavior which starts at an early age will also tend to determine the attitude of responsibility in adulthood [3].

Behavior of responsibility in early childhood cannot be achieved without an educational process. The process begins with the inculcation of the values of responsibility behavior developed by teachers, parents and the community. With the development and habituation of responsible behaviors in early childhood children are expected to be able to meet social demands in the future.

Instilling responsibility behavior in children is including in the area of developing the ability of habituation. The area of habituation development is an activity that is carried out continuously and exists in the child's daily life, so that it becomes a child's habit. Besides through habituation, responsible behavior can also be done by setting an example or role model for children. This example can be done through giving examples directly or by using the method of giving rewards. However, the method of rewarding by giving star stickers seems to be less effective in realizing the application of responsible behavior in early childhood. This is because children feel quickly satisfied with the acquisition of stars and the teacher also has difficulty maintaining positive student behavior despite using the star stickers as positive reinforcement. Therefore, in this study, researchers will use prizes as extrinsic reinforcement in increasing the behavior of early childhood responsibilities. This is also supported by the opinion of Tarbox, Ghezzi, and Wilson, which states that the Token Economy is one example of extrinsic reinforcement that makes a person do something to achieve that can increase his attention both from the level of intensity and from the level of validity, the goal is to change extrinsic motivation into intrinsic motivation, in this way it is hoped that the acquisition of desired behavior can be a reward for maintaining new behavior [4].

One technique that uses gifts as a consequence is the token economy technique. The token economy technique is designed to increase desirable behavior and reduce unwanted behavior by using tokens. After several tokens have been collected, they can be exchanged for prizes (reinfocers) according to the number of tokens that they get [6]; [7].

Token Economy is a form of behavior modification that is designed to increase desirable behavior and reduce unwanted behavior by using tokens (signs, for example, coins or stickers). According to Walker, et.al., piece savings is a technique for reinforcing behavior aimed at a child in accordance with agreed targets, using rewards in the form of gifts to symbolically reinforce [8]. Children receive money (symbolic money), paper or metal, which can be exchanged in the school canteen at prices according to the value of the pieces. Some types of pieces (tokens) as a symbol of confirmation are often used among other gold stars, coupon paper, a small piece of color paper, coins, stickers, stamps, plastic buttons and so on. The piece savings procedure is no different from working people who receive wages in the form of direct cash after one portion of their work is completed. Money is a kind of fragment, which when collected can be bought something the owner wants. The chip program can be applied to normal children, to children or people whose development is delayed, mentally handicapped, or who have personality disorders.

Therefore, in practice it is expected that children can receive tokens quickly after demonstrating the desired behavior. The token is collected and can be exchanged for an object or meaningful honor [9]. In principle, awards encourage children to excel. Token Economy is a reinforcement system for behaviors that are managed and changed; one must be rewarded / given reinforcement to improve the desired behavior. The main purpose of Token Economy is to increase desirable behavior and reduce undesirable behavior.

Token economy is expected to be a positive reinforcement that can be used to improve the behavior of early childhood responsibilities. Token economy is the application of *operant conditioning* by replacing direct gifts with something that can be exchanged later [10]. It is called *operant* because it gives treatment to the environment that is a gift to the expected behavior. Therefore, the use of token economy techniques is expected to improve the behavior of early childhood responsibilities.

Angel Hearts Kindergarten Denpasar is a private school located in South Denpasar that was established in 2018. In the 2018-2019 Academic Years there were 17 students for group A class. The learning model used in Angel Hearts Kindergarten is still classical. The problems that were found when observing in Group A with 17 children, namely 10 girls and 7 boys, were 26.92% of children who still had low levels of responsibility behavior. During observing the child's responsibility behavior, there are still many children who do not show their ability to be responsible. Teachers in group A teach more with the lecture method and assignments.

Based on the results of observations on children of Group A Kindergarten Angel Hearts Denpasar, this study aims to determine the increase in the behavior of early childhood responsibilities through the implementation of Economy Tokens. This research is a classroom action research through 2 cycles using observation and interview methods. The implementation of the Token Economy is expected to be able to improve the behavior of early childhood responsibilities so that it becomes a reference for teachers in habituating in the classroom.

METHODS

This study uses a classroom action research design (classroom action research) which generally aims to improve the behavior of early childhood responsibilities. This research will be carried out in two cycles where each cycle consists of four stages: action planning, action implementation, observation / evaluation, and reflection.

The subjects of this study were children of group A Kindergarten Angel Hearts Denpasar, totaling 17 children (consisting of 10 girls and 7 boys). The object of this class action research was conducted on research subjects at the Kindergarten education level, namely the Implementation of Economy Tokens to improve the behavior of early childhood responsibilities.

Data collection methods used in this study are through observation, anecdotal records, and documentation. The data is obtained through observation with a rubric guide to record data about the behavioral responsibilities shown by early childhood. Observations made by researchers are structured observation and unstructured observation. The process of observing understanding structured children's responsibility behavior is assisted by an instrument in the form of an observation questionnaire with research indicators, namely: respecting the excellence of others and willing to share, help and help friends. Whereas in carrying out unstructured observations, observers do not provide a prior list of aspects to be observed. In this case, the observer records all the behaviors that are considered important in a period of observation.

FINDINGS AND DISCUSSIONS

Result of Cycle I

Cycle I with the theme of the country followed by sub-themes of the island of Bali, Bali Traditional Houses, Tourist Attractions in Bali, and Balinese Traditional Clothes are planned for 4 meetings, each meeting held based on a learning scenario. This research process uses the method of observation at each meeting to assess the child's responsibility behavior. In detail the average value of a child's responsibility behavior in participating in learning activities by applying the Token Economy technique in Cycle I is set out in Table 1 below.

Tabel 1. Data Description of Result of Study Cycle I

		Students' Responsible Behavior
N	Valid	17
	Mean	8.01
	Median	8.25
	Mode	7.75; 8.5; 9.25
	Std Deviation	4.10
	Minimum	6
	Maximum	10

The score of the measurement results of the respondents obtained the highest score is 10 of the highest score that might be achieved that is 12. The lowest score of the respondent is 6 of the lowest score that might be achieved that is 4.

ISBN: 978-602-53420-4-2

The results of child discipline observations will be converted using the five scale Benchmark Reference Conversion Assessment (PAP) guidelines. The results of child discipline achievements in Cycle I can be seen in Table 2.

Tabel 2. Results of Behavior Responsibility Achievement of Children's in Cycle I

No	Mastering Percentage	Amount	Percentage	Explanation	Completeness
1	0 - 54	3	17.65	Very Low	Incomplete
2	55 – 64	4	23.53	Low	
3	65 – 79	10	58.82	Medium	Complete
4	80 – 89	0	0	High	
5	90 - 100	0	0	Very High	

From Table 2 above, it can be observed that of 17 children, 3 children (17.65%) received the very low category, 4 children (23.53%) reached the low category, and 10 children (58.82%) the answer is in the medium category. But it has not been found that children who achieve high and very high responsibility behavior categories. Out of 17 children, it appears that 10 children (58.82%) have achieved completeness in responsibility behavior, while 7 children (41.18%) have not yet reached completeness in responsibility behavior. More details can be illustrated in the polygon graph below:

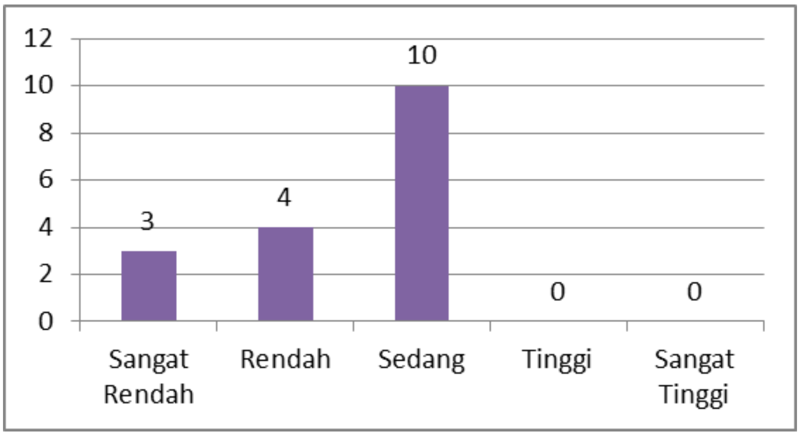


Figure 1. Graph Responsibility Behavior Cycle I

The results of monitoring as described above show that in general the level of responsibility behavior of children of Angel Hearts Denpasar Kindergarten Denpasar has achieved average success in the medium category. So that at the end of Cycle I the attainment of responsibility behavior was 58.82%. That means that the results of the children's responsibility behavior in Cycle I have not reached a minimum completeness of 80% so the research will continue on Cycle II.

Cycle II

The implementation of Cycle II actions is not much different from the implementation in Cycle I. Weekly Learning Program Plan (RPPM), Daily Learning Program Plan (RPPH), and learning scenarios are designed and arranged according to the theme used at Angel Hearts Kindergarten Denpasar. Cycle II with the theme of My Country and the sub-theme of the Indonesian State Symbol, the Indonesian Flag, the President and Vice President of Indonesia, and the Capital of Indonesia planned for 4 meetings, each meeting held based on a learning scenario. In detail the average value of a child's responsibility behavior while participating in learning activities through the Token Economy technique in Cycle II is set out in Table 3 below.

Tabel 3. Data Description of of Result of Study Cycle II

		Students' Responsible Behavior
N	Valid	17
	Mean	8.13
	Median	8.33
	Mode	6.46; 8.33; 9.17
	Std Deviation	4.70
	Minimum	7
	Maximum	12

The score of the measurement results of the respondents obtained the highest score is 12 of the highest score that might be achieved that is 12. The lowest score of the respondent is 7 of the lowest score that might be achieved that is 4.

The results of observations of children's responsibility behavior will be converted using the five scales Benchmark Reference Conversion Guidelines (PAP). The results of the children's responsibility behavior in Cycle II can be seen in the following table:

Tabel 4. Results of Behavior Responsibility Achievement of Children's in Cycle II

No	Mastering Percentage	Amount	Percentage	Explanation	Completeness
1	0 - 54	0	0	Very Low	Incomplete
2	55 – 64	3	17.65	Low	
3	65 – 79	3	17.65	Medium	Complete
4	80 – 89	7	41.18	High	
5	90 - 100	4	23.52	Very High	

From Table 4 it can be observed that there are 17 children, not one child gets a very low category. There were 3 children (17.65%) who received the low and moderate categories, 7 children (41.18%) reached the high category, and as many as 4 children (23.52%) with very high achievement categories. Out of 17 children, 14 children (82.52%) have achieved responsibility behavior completeness, while there are still 3 children (17.65%) who have not yet achieved responsibility behavior completeness. More details can be illustrated in the polygon graph below:

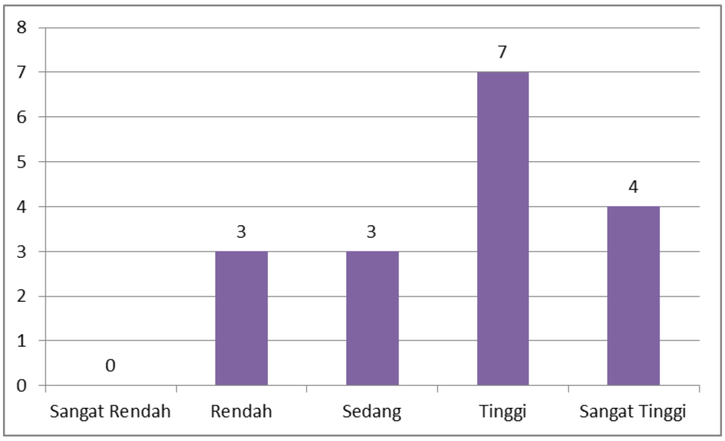


Figure 2. Graph Responsibility Behavior Cycle II

The monitoring results as described above show that in general the behavioral responsibilities of children in kindergarten Angel Hearts Denpasar have achieved average success in the medium, high, and very high categories. This means that the application of token economy techniques can improve children's responsibility behavior because at the end of Cycle II it has reached completeness which is 82.52% with most children getting high and very high categories. The results of the children's responsibility behavior in Cycle II have reached a minimum completeness of 80%.

Discussion

Empirical findings obtained by researchers in the field of responsibility behavior of children of Group A Kindergarten Angel Hearts Denpasar in Cycle I showed that out of 17 children, 10 children (58.82%) had reached completion of responsibility behavior while 7 children (41.18%) have not yet reached the level of responsibility behavior.

Many children have difficulty with indicators showing the behavior of respecting other people's excellence. In Cycle I, there are still many children who have not shown the behavior of appreciating excellence in a simple way that is praising their friends. Usually when children can finish their work or do something great and get coins as a reward, the other friends just stay quiet. The children seemed ordinary with the achievements obtained by their friends. Efforts are made to overcome this is the teacher doing habituation by praising friends who have finished first. Not infrequently also given an appreciation in the form of "toss". Theoretically, habituation is an effort made to develop children's behavior, which includes religious, social, emotional, responsibility and independence [11]. It is expected that with habituation can help individuals achieve optimal self-development as social beings who are capable of being responsible.

Empirical findings in Cycle II for behavioral responsibility, in general the level of development of children's responsibility group A Kindergarten Angel Hearts Denpasar has achieved average success in the category of medium, high, and very high. This states that the implementation of token economy techniques can improve children's responsibility behavior because at the end of Cycle II completeness has reached 82.52% with most children getting high and very high categories. In line with this, the research that has been conducted with the type of class action research entitled; "Application of Economy Token Techniques to Improve Discipline of Early Childhood" shows that there is an increase in discipline with the application of the Economy Token technique [12]. In Cycle I, discipline was 65.38%, which was in the medium category, and increased in Cycle II to 92.31%, which was classified as high category.

The results of the children's responsibility behavior in Cycle II have reached a minimum completeness of 80%. An increase in children's responsibility behavior is equal to 23.7%. Every aspect of children's responsibility behavior in Cycle II also increased compared to Cycle I. One of the conclusions in this study was that there was an increase in responsibility behavior in children in Group A Kindergarten Angel Hearts Denpasar through token economy techniques after 2 cycles. This is consistent with the opinion od Corey, that the token economy can be used to shape behavior if the approval and other impenetrable authorities have no influence [13]. With the application of token economy techniques, children have the spirit to be more disciplined, responsible, and sensitive to the surrounding environment because there are stimulers from outside, namely the token economy itself.

CONCLUSION

The results of research and discussion show that token economy can be applied to early childhood. The types of tokens used in this study are coins that are combined in each piggy bank. Based on the description above, it can be concluded that the implementation of token economy techniques in this study can increase the behavior of early childhood responsibilities in Group A of Angel Hearts Kindergarten Denpasar with the achievement of minimum completeness criteria, namely 14 children (82.52%) in the medium, high, and very high.

ACKNOWLEGMENT

1. Head of Universitas Dhyana Pura.
2. Chief and staffs of LPPM who has facilitated this research who has facilitated this study.
3. Head of PG-PAUD's department of University Dhyana Pura.
4. Angel Hearts Kindergarten in Denpasar that give us a chance to conduct this study in their school.

REFERENCES

[1] Hamalik, Oemar. (2013). Kurikulum dan Pembelajaran. Jakarta: PT Bumi Akasara.

[2] Megawangi R. (2015). *Pendidikan Karakter.* Depok: Indonesia Heritage Foundation.

[3] Lickona, Thomas. (2014). *Education for Character: Mendidik Untuk Membentuk Karakter.* Terjemahan oleh Juma Abdu Wamaungo. Jakarta: Bumi Aksara.

[4] Nurmawati, Eka Indah. (2013). *Penerapan Metode Modifikasi Perilaku Token Economy untuk Mengurangi Conduct Disorder.* Tersedia pada: http://ejournal.umm.ac.id/index.php/

[6] Hernandez, M.S. & Reitman, D. (2014). *Token economy in the classroom*. http://www.academia.edu/2466631/Token_EconomyHarl_in_the_Classroom.

[7] Lessing, Ansie C & Renee Wulfsohn. (2015). *The potential of behaviour management strategies to support learners with attention deficit hyperactivity disorder in the classroom*. *Journal Education as Change*, 19:1, 54-77, DOI: 10.1080/16823206.2015.1024146.

[8] Hadi, Purwakarta. (2005). *Modifikasi Perilaku*. Jakarta: Departemen Pendidikan Nasional.

[9] Davidson, G. (2010). *Psikologi Abnormal*. Jakarta: Rajawali Press.

[10] Palmer, S. (2011). *Konseling dan Psikoterapi*. Yogyakarta: Pustaka Pelajar.

[11] Aqib, Zainal. (2009). *Belajar dan Pembelajaran di Taman Kanak-Kanak.* Bandung: Yrama Widya.

[12] Prima, E & Lestari, P. I. (2018). *Penerapan Teknik Token Economy Untuk Meningkatkan Kedisiplinan Anak Usia Dini. Obsesi: Jurnal Pendidikan Anak Usia Dini*, 2 (2), 247–254.

[13] Corey, G. (2013). *Teori Praktek Konseling dan Psikoterapi*. Bandung: Refika Aditama. pskip/article/viewFile/1373/1467. Diakses pada tanggal 18 Februari 2014.

MEDICAL RECORD DIGITALIZATION DESIGN OF NATURAL DISASTERS PATIENTS AT DISASTER-PRONE HOSPITAL

Ni Ketut Maya Komala Apriliyani[1], Gerson Feoh[2*], Bambang Hadi Kartiko[3]
[1,2] Universitas Dhyana Pura
gerson.feoh@undhirabali.ac.id

ABSTRACT

This study aims to design medical record digitalization design of natural disasters patients in hospitals that handles a lot of victims of natural disasters. The North Lombok district hospital as one of the hospitals that deal with victims of earthquakes and other natural disasters in 2018 found inaccurate data processing and Insufficient storage of natural disaster patient medical records because the level of complexity and data fulfillment in short time is needed in these conditions. It is expected that the system development design can produce calculations and data delivery that work faster and more accurately to speed up and simplify the process of managing natural disaster patient data starting from registering natural disaster patients, assessments, and reporting natural disaster patients on web-based. The author used CI (codeigniter) as a framework for system development. The results of this study are scores testing the usability aspect by using the use questioner instrument to users which can be concluded that the design of web-based electronic medical records for natural disasters patients got 80.8% usability standard or can be classified as "Good".

Keywords*: natural disaster patients, triage, digitization of codeigniter medical records, North Lombok district hospital.*

INTRODUCTION

Natural disaster medical record is a collection of facts and records regarding the identity of a disaster patient, where the victim was found, the number of the disaster patient and the identity of the person who discovered the disaster victim [17]. Based on the observations and interviews of the authors in November 2018 at the North Lombok District General Hospital in the special services of natural disasters, it was found that on August 5, 2018 to August 28, 2018 there were 1309 medical records of natural disaster patients and 447 or 34.1% known medical records of natural disasters were not found because of inadequate placement and storage of medical records, medical records of natural disaster patients were not completely filled because officers did not use natural disaster medical records but used memo books and only contained name and address data.

In the North Lombok District General Hospital has not yet used the system in managing medical records of natural disaster patients which has an impact in processing patient data, this will affect the accuracy of medical records, the handling of natural disaster patients, further patient visits if the patient wants control and the safety and authenticity of the data can be questioned. To overcome this problem, it is necessary to develop a system with a level of calculation and data delivery that works faster and more accurately so as to speed up and simplify the process of managing patient data.

The system those who can access are administrative officers, medical records officers, and doctors. The process includes patient registration, patient examination, identification of patients who need immediate stabilization (field care) and identifying patients who are only saved by emergency surgery (life-saving surgery). So that later this system can produce reports on the number of natural disaster patients, patient data reports based on emergency categories and reports on patient diagnosis results.

ISBN: 978-602-53420-4-2

Based on the problem above, the writer makes a design of a Web-Based Electronic Medical Record for Natural Disaster Patients at the North Lombok District General Hospital.

METHODS

The authors designed the system based on the concept of System Development Life Cycle (SDLC). Data collection methods used observation, interviews and literature study. The system development method used the waterfall model, which was a classic model that was simple, structured and linear in which the process flows in a scenential way from beginning to end.

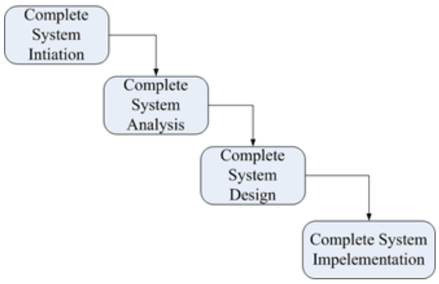


Figure 1. The Squential or Waterfall Strategy

Context Diagram

Context diagram is the top diagram of an information system that describes the processes that occur in the system in the form of a data flow diagram (DAD). To provide various information, the stages of the process will be explained through the depiction of context diagrams.

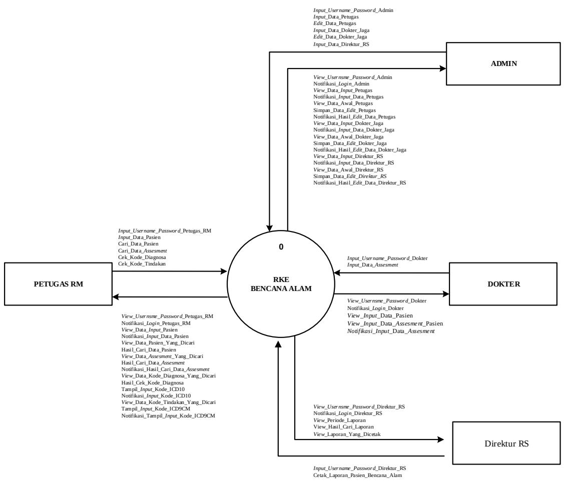


Figure 2. Context Diagram

DFD Level 0

DFD Level 0 describes several processes of data flow into and out of the database. DFD Level 0 can be seen in the following image

ISBN: 978-602-53420-4-2

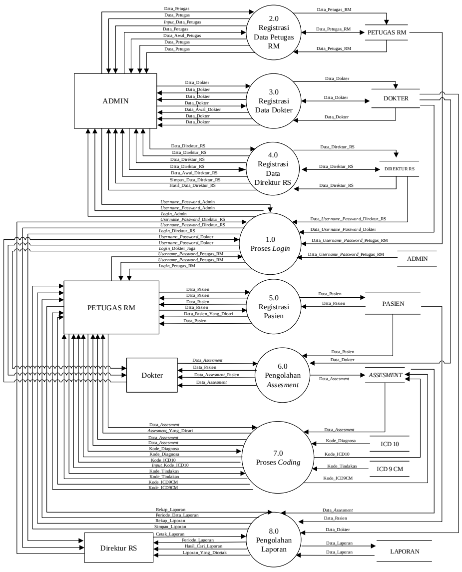


Figure 3. DFD Level 0

Entity Relationship Diagram (ERD)

ERD Diagrams list of all entities along with the attributes of each entity related as follows.

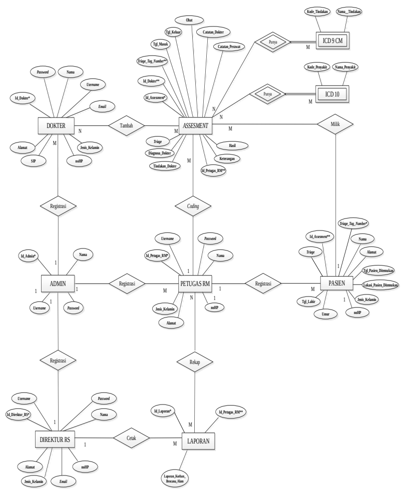


Figure 4. Entity Relationship Diagram (ERD)

System Requirements Analysis

Functional system requirements were input, process and output. While the non-functional system requirements were hardware in the form of an Intel Core i3 laptop, 1.6 GHz processor, 2 GB memory, 500 GB hard drive, 64 bite system type, Mouse and Keyboard as input devices and printers as output devices. While the Software Requirements were Microsoft Windows (XP, Vista, 7, 8, 10), Web Browser (Mozilla Firefox, Chrome), XAMPP as a database server and Apache as a web server, Adobe Dreamweaver CS6 as a Web editor, CI (codeigniter) as framework for system development.

System Architecture

System Architecture designed the user logs into the system and the system confirms the results of the login to the user, Patient Registration, Assessment which displayed the results of the patient assessment and emergency categories, printed reports of natural disaster patients. The design of the electronic medical record information system interface used a pulldown menu that consisted of menu bars that can be selected by moving the cursor left and right.

Research Samples

The population of this study was the medical records officer at the North Lombok District General Hospital which used probability sampling techniques with simple random sampling using the Slovin formula [23]. The instrument to testing usability aspects used the USE Questionare instrument with assessment criteria used a Likert scale [19].

SYSTEM IMPLEMENTATION

Login Page Display

The login page can be accessed via address http: //localhost/medical/login in a web browser, the portal login page will appear, then the user (Medical record officer, admin, doctor and hospital director) will log in by entering the user name and password.

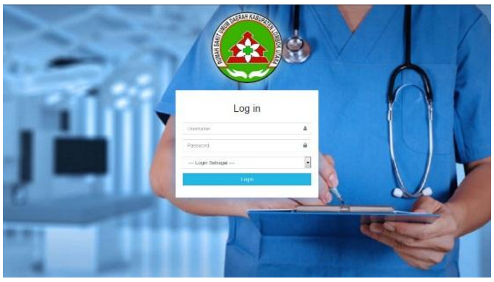


Figure 5. Login Page Display

Admin Page Display

In this menu the admin can search, add data, edit director data, Medical record officer data, doctor data, and admin data.

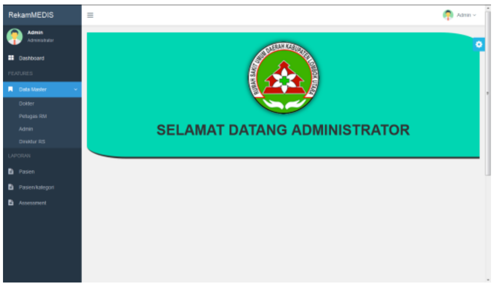


Figure 5. Admin Page Display

Doctor's Page Display

In this menu, doctors can search, add data and edit data assessments.

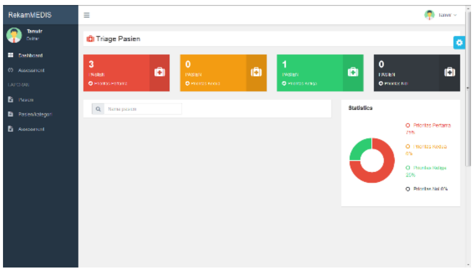


Figure 6. Doctor's Page Display

Medical Record Officer Page Display

On this menu Medical record officers can search, add data, edit patient data, Report and Coding ICD 10, ICD 9.

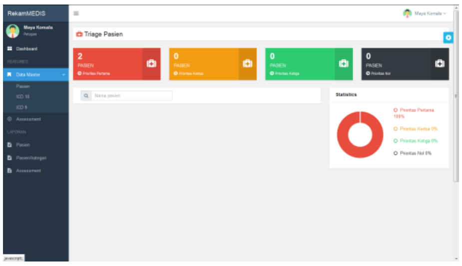


Figure 7. Medical record officer Page Display

Hospital Director Page Display

On this menu the Hospital Director can print reports.

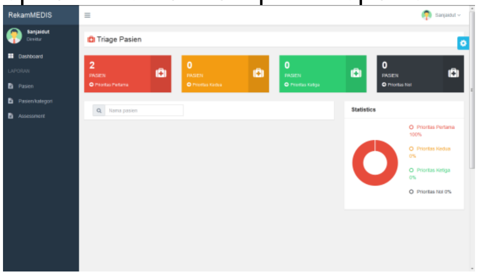


Figure 8. Hospital Director Page Display

System Testing

System testing used the blackbox method with open system testing, testing the login page, testing the admin menu page, testing the officer page, testing the doctor page and testing the director page running in accordance with DFD.

Usabillity Testing

Usabillity testing is carried out directly to 5 (five) officers by trying a web-based electronic medical record system for natural disaster patients and the total score obtained is 606 with a Feasibility Percentage of 80.8%, it can be concluded that it meets the usability standards obtained "Good".

CONCLUSION

This research succeeded in making the design of electronic medical records for patient registration pliers including Triage Tag Number (temporary disaster medical record number), Patient Triage Information (red category: first priority, yellow category: second priority, green category: third priority, black category: priority 0 or died), patient identity, date the patient was found, patient location was found, type of natural disaster, and introductory identity. assessment (assessment) of natural disaster patients include Date of entry, Date of discharge, Doctor Data, ICD Code 10, ICD Code 9, Name of Drug, Doctor's note, Nurse's record, Result of diagnosis and Remarks. Reporting natural disaster patients in the form of natural disaster patient data reports, patient data reports based on emergency categories and assessment report. It is necessary to develop a system that is integrated into all units in the hospital as well as relevant authorities in handling natural disasters in order to facilitate patients and officials in providing and receiving health services.

ISBN: 978-602-53420-4-2

REFERENCES

[1] A.S, R & Shalahuddin, M, 2016. In: *Rekayasa Perangkat Lunak.* Bandung: Penyunt.
[2] Abdulloh, R., 2015. Web Programming. In: P. E. M. Komputindo, ed. *Web Programming.* Jakarta: s.n.
[3] Enterprise, J., 2017. *PHP Komplet.* Jakarta: PT Elex Media Komputindo.
[4] Erkadius, d. M., 2010. In: *Manajemen Informasi Kesehatan 1 bagian 1.* Padang: Apikes Iris.
[5] Handiwidjojo, W., 2015. *Rekam Medis Elektronik.* Available at: https://ti.ukwdw.ac.id/ojs/index.php/eksis/article/download/383/163.
[6] Harumy, 2016. Bahasa Pemrograman. *Belajar Dasar Algoritma dan Pemrograman C++.*
[7] Hatta, G., 2013. *Pedoman Manajemen Informasi kesehatan Disarana Pelayanan Kesehatan.* Jakarta: Universitas Indonesia (UI-Press).
[8] Heryanto, A., 2010. Aplikasi Pelayanan Puskesmas Berbasis Web (Studi Kasus Puskesmas Maja.
[9] Hutahaean, J., 2014. Konsep Sistem Informasi. In: *Yogyakarta : CV.Budi Utama.*
[10] Indrajani, 2015. *Database Design (Case Study All In One).* Jakarta: PT Elex Media Komputindo.
[11] Kemenkes, 2012. *Roadmap Sistem Informasi Kesehatan (SIK) Tahun 2011-2014.* Jakarta: Kementrian Republik Indonesia.
[12] Lestari, S., 2014. *Analisis Usability Web (Studi Kasus Web).* Available at: http://jitter.widyatama.ac.id/index.php/jitter/article/view/11/11
[13] Muslihudin, O. M., 2016. *Analisis dan Perancangan Sistem Informasi Menggunakan Model Terstruktur dan UML.*
Available at: http://digilib.polban.ac.id/download.php?id=19832.
[14] Mustaqbal, M. S., Firdaus, R. F. & Rahmadi, H.,, 2016. *Pengujian Aplikasi Black Box.* http://jitter.widyatama.ac.id/index.php/jitter/article/view/70/50.
[15] Octarina, 2017. *Tinjauan Terhadap UU ITE untuk Penerapan Rekam Medis.* ejournal.kopertais.or.id/matraman/index.php/tahdzib/article/download/3253/2449
[16] Permenkes, 2014. *Peraturan Mentri Kesehatan Republik Indonesia Nomor 56 Tahun 2014.*
[17] Permenkes, 2018. *Peraturan Menteri Kesehatan Republik Indonesia Nomor 47 Tahun 2018 Tentang Pelayanan Kegawat Daruratan.*
[18] Rerung, R. R., 2018. Jurnal Teknologi Rekayasa. *Rancang Bangun Sistem Informasi Akademik Dalam Penerapan Smart Kampus Untuk Meningkatkan Pelayanan Akademik.*
[19] Riduwan, 2013. *Metode dan Teknik Menyusun Proposal Penelitian.* Bandung: Alfabeta.
[20] Rusman, 2017. In: Kencana, ed. *Belajar dan Pembelajaran Berorientasi Standar Proses.* Jakarta: s.n.
[21] Sukamto, R. A. & Shalahuddin, M., 2011. *Modul Pembelajaran Rekayasa Perangkat Lunak.* Bandung: Andi Offset.
[22] Supono, 2016. Pemrograman Web dengan menggunakan PHP dan Framework Codeigniter. In: Yogyakarta: Depublish.
[23] Widodo, M, H. S. & Saifi, 2018. Journal Akutansi Aktual. *Pengaruh Aplikasi*
[24] *Sistem Informasi Manajemen (SIM) Terhadap Kinerja Karyawan,* 1(7), pp. 87-100.
[25] Yanto, 2016. *Manajemen Basis Data Menggunakan MySQL.* Yogyakarta: *Deepublish*.

THE EFFECT OF COMPENSATION, MOTIVATION, WORK DISCIPLINE AND WORK ENVIRONMENT ON HOUSEKEEPING STAFF PERFORMANCE AT LV 8 RESORT HOTEL

I Wayan Wahyu Wiadnyana[1], I WK Teja Sukmana[2*], Putu Chris Susanto[3], Dylla Hanggaeni Dyah Puspaningrum[4]
[1,2,3,4] Universitas Dhyana Pura
*tejasukmana@undhirabali.ac.id

ABSTRACT

This study aims to determine the effect of compensation, motivation, work discipline, and work environment on the performance of housekeeping employees at LV 8 Resort Hotel Bali. Human resources is one of the factor that determining in the hotel operational. The effectiveness of human resource department in an organization can be assessed by employees' performance. Data collected were analyzed by regression analysis. The sample were housekeeping employees of LV 8 Resort Hotel Bali. The number of sample were 45 people taken by census technique. The findings suggest that compensation, motivation, work discipline, work environment have partial positive and significant effect on employee performance. Furthermore, compensation, motivation, work discipline, and work environment simultaneously have positive and significant effect on employee performance. Model equation is Y = 3.098 + 0.124 X1 + 0.158 X2 + 0.141 X3 + 0.285 X4. The model has an accuracy of 89.8%. The study supports previous findings by Febriani, Indrawati, 2013; Muogbo, Uju S. 2013; Shahzadi et.al, 2014, that compensation, motivation, work discipline, and work environment have positive, partial and simultaneously significant effect on employee performance.

Keywords: Compensation, Motivation, Work Discipline, Work Environment, Employee Performance

INTRODUCTION

Hotels are part of tourism industry. According to Sulastiyono (2011: 5), a hotel is a company that is managed by the owner in providing food, drink and room facilities for sleeping to people who travel and are able to pay a reasonable amount in accordance with the services received without any special agreement.

Human resources is one of the determining factors in hotel operations whom provide services to the guests. Human resources can be assesed by their performance. Performance is the result or overall level of success of a person during a certain period in carrying out the task compared to various standards, such as work standards, targets or criteria that have been determined in advance that have been mutually agreed.

One of the Hotels in Bali is LV 8 Resort Hotel, located on the beachfront of Canggu Bali Berawa. LV 8 Resort Hotel has accommodation, restaurant and recreation facilities. Human Resources play an important role in improving service quality at LV 8 Resort Hotel especially in the housekeeping department which has 45 employees.

The driving factors to increase employee performance are compensation, such as satisfying the needs, external need (meeting primary needs, food, clothing, houses and environment), internal needs (employee desires to put themselves in specific career positions). LV 8 Resort Hotel provides compensation for the employees. The compensation given by the hotel to employees are salaries, holiday allowances, health insurance and bonuses.

Another supporting factor is motivation which is the driving force within a person. The driving force from outside of the person must be brought by the leader and for the influencer coming from outside of the person, the leader must choose various tools that are suitable for that person.

Work motivation does not only come from within the person, but requires a combination of personal, supervisor, and work environment. At LV 8 Resort Hotel, a form of motivation carried out by management are briefings before work hours, evaluating employee work and appreciating achievements, employee gathering.

Work discipline is also a supporting factor for employee performance in a company. In an organization or company, work discipline is important to run the organization. Work discipline shows that employees are obedient and obey company regulations to achieve common goals.

The company always tries to improve employee work discipline as much as possible within the limits of the company's capabilities. If the company neglects to pay attention then the performance will decrease. One indicator that can be used to look at employee work discipline is the level of attendance.

The attendance rate of housekeeping employees at LV 8 Resort Hotel in 2016 was 4%, while in 2017 there was an increase in absenteeism to 5%. So it can be concluded that there has been an increase in the attendance rate of housekeeping employees from 2016 to 2017.

Another factor that also influences employee performance is the work environment. According to Sedarmayanti (2009: 21) The work environment is all the tools and materials that are faced, the environment around where the worker works, his work methods, and work arrangements whether he does it individually or in groups. The work environment in a company is very important to be considered by management.

The company must provide an adequate working environment such as a comfortable office layout, clean environment, good air exchange, color, adequate lighting, employee work atmosphere, employee welfare, relationships among employees.

The purpose of this study was to determine the effect of the compensation, motivation, work discipline and work environment on housekeeping staff performance at LV 8 Resort Hotel.

METHODS

The This research was conducted on Housekeeping employees at LV 8 Resort Hotel Canggu which addressed at Jl. Discovery No. 8, Canggu, 80361, Indonesia, Telephone (0361) 8948888. Fax (0361) 894 8989. Web: info@LV 8bali.com. The object of this research is compensation, motivation, work discipline, work environment and employee performance in Housekeeping at LV 8 Resort Hotel. In this study, all employees in the housekeeping section were used as research respondents. Data collection techniques used in this study were interviews, questionnaires. The data analysis technique used in this study is multiple regression analysis.

FINDINGS AND DISCUSSION

Based on the questionnaire collected, data were obtained about the gender, age, education and tenure. The characteristics of respondents based on gender can be seen that there is 64% of respondents were male and 36% were female. The characteristics of respondents based on age can be seen that most respondents age between 30 - 35 years (35.6%), while the lowest age group is under 25 years old (17.8%). Based on education can be seen that the level of graduate respondents is dominated by diploma by 40%, then undergraduate by 13%. The characteristics of respondents based on tenure, the most respondents are employees who have worked between 5 years and 10 years (55%), and the lowest are those who have worked more than 10 years (21%).

Table 1. Results of Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.098	1.018		3.042	.004
	Compensation	.124	.084	.195	2.069	.046
	Motivation	.158	.062	.268	2.545	.015
	Work Discipline	.141	.128	.220	2.229	.033
	Work Environment	.285	.063	.551	4.535	.000

From Table 1 can be arranged in the form of a regression equation: $Y = 3.098 + 0.124\ X_1 + 0.158\ X_2 + 0.141\ X_3 + 0.285\ X_4$. The constant (a) = 3.098 shows the staff performance of housekeeping staff if there is no influence of Compensation (X1), Motivation (X2), Work Discipline (X3), Work Environment (X4) or if the independent variable affecting the value is considered zero. The value of the regression coefficient of the compensation variable (X1) indicates a positive influence of 0.124 on employee performance. Positive regression coefficients indicate a direct effect, meaning that if compensation is increased then employee performance will increase. Also the value of the Motivation variable (X2) indicates a positive influence of 0.158 on employee performance. The positive regression coefficient shows a direct effect, meaning that the higher the level of motivation of housekeeping staff in LV 8 Resort Hotel leads to higher employee performance.

Work Discipline variable (X3) also shows a positive influence of 0.141 on employee performance. Positive regression coefficients indicate a direct effect, meaning that the higher the level of work discipline of housekeeping staaf in LV 8 Resort Hotel will lead to the higher housekeeping staff performance. The value of work environment variable (X4) shows a positive influence of 0.285 on housekeeping staff performance. This also indicates a direct effect, meaning that the higher the level of work environment in the organization will lead to higher housekeeping performance.

Table 2. Results of Correlation Values

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.952[a]	.907	.898	.91993

Based on Table 2 it can be seen that the correlation value (r) of 0.952 shows that the relationship of compensation, motivation, work discipline and work environment on housekeeping staff performance at LV 8 Resort Hotel (Y) is have a strong relationship. The coefficient of determination (R^2) to find out how much the contribution of compensation, motivation, work discipline and work environment on housekeeping staff performance. Based on Table 2, the results of the adjusted value $R^2 = 0.898$. This shows that compensation, motivation, work discipline and work environment contribute 89.8% to housekeeping staff performance while the remaining 10.2% is contributed by other variable which was not observed in this study.

Based on the results of calculations in Table 1, the results obtained from the analysis of hypothesis 1 test are whether there is a significant effect of compensation on housekeeping staff performance, it can be seen that the significance level of 0.004 is lesser than the level of α = 5% means that the compensation variable gives an effect that is significant to the housekeeping staff performance. Based on the results of hypothesis 2 testing, is there a significant effect of motivation variables on housekeeping staff performance, it can be seen that the significance level of 0.046 is lesser than the level of α = 5% means that the motivation variable has significant effect on the housekeeping staff performance in LV 8 Resort Hotel.

ISBN: 978-602-53420-4-2

Based on the results of hypothesis 3 testing, which is whether there is a significant effect of the work discipline variable on the housekeeping staff performance, it can be seen that the significance level of 0.033 is lesser than the level of ɑ = 5% which means that the work discipline variable gives an insignificant influence on housekeeping staff performance. Based on the results of hypothesis 4 testing, is there a significant effect of variable work environment on housekeeping staff performance, it can be seen that the significance level of 0.000 is lesser than the level of ɑ = 5% means that the work environment variable has a significant influence on the housekeeping staff performance variable at LV 8 Resort Hotel.

Table 3. Results of F_{Test}

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	330.149	4	82.537	97.529	.000[b]
Residual	33.851	40	.846		
Total	364.000	44			

Based on the results of hypothesis 5 testing, is there a significant effect of compensation, motivation, work discipline and work environment on housekeeping staff performance at LV 8 Resort Hotel can be explained that the value of F_{count} : 97.529 is greater than the value of F_{table} 2.61, it can be concluded that Compensation, Motivation, Work Discipline, and Work Environment simultaneously have a positive and significant effect on Employee Performance.

Partially Compensation has a positive and significant effect on the Performance of Houskeeping Employees at the LV 8 Resort Hotel Canggu. Compensation is important because compensation reflects the company's efforts to maintain and improve the welfare of its employees. In addition, compensation is also useful in increasing employee productivity. In other words, giving compensation also smooths the company's goals because compensation affects employee performance.

Partially, Motivation has a positive effect on the Performance of Employees of Houskeeping LV 8 Resort Hotel Canggu. Motivation is also an important factor to improve employee performance. The realization of maximum performance requires an encouragement to bring up the will and enthusiasm of work. Motivation serves to stimulate the ability of employees to work, it creates maximum performance results.

Partially Work Discipline has a positive and significant effect on the Performance of Employees Houskeeping LV 8 Resort Hotel Canggu, when the level of work discipline is high, it is expected that employees will work better so the employee productivity increases. In addition, good work discipline will improve employee work efficiency.

Partially, the Work Environment has a positive and significant effect on the Performance of Employees of Houskeeping LV 8 Resort Hotel Canggu. It is appropriate for the company to provide a comfortable and conducive work environment in order to be able to lure employees to work more productively. Providing a comfortable work environment will be able to provide satisfaction to employees on the work and give a deep impression that will ultimately improve employee performance.

CONCLUSION

Compensation, Motivation, Work Discipline, and Work Environment have a positive and significant effect simultaneously on the Houskeeping Employee Performance of LV 8 Resort Hotel. Employee Performance is the result of an employee's work while he is working in carrying out the main duties of his position which can be used as a basis for whether the employee can be said to have good work performance or vice versa. In doing work, employees will be influenced by several factors such as compensation, motivation, work discipline and work environment. Companies must find ways to improve the performance of their employees. The compensation factor influences employees in carrying out their work because with compensation provided by the company the employee will feel that his work has not been in vain and provide satisfaction with the work done. Motivation for employees will provide encouragement to work more active. To maintain employee orderlines and obedience, the company can apply several work rules because with high discipline, employee performance will be more optimal. A comfortable work environment is needed to support optimal employee performance. The work environment can be in the form of room lighting, environmental cleanliness, relationships between friends and so forth. Future studies of employee performance or work performance are expected to include other variables other than the variables used in this study such as leadership, organization culture and involving all of department employee of the LV 8 Resort Hotel.

REFERENCES

[1] Agus, Sulastiyono. 2011. Manajemen Penyelanggaraan Hotel. Bandung: Alfabeta.
[2] Alex S Nitisemito. 2010. Manajemen Personalia: Manajemen Sumber Daya Manusia. Ed 3. Ghalia Indonesia: Jakarta.
[3] Fattah. 2017. 'Kepuasan Kerja dan Kinerja Karyawan'. Edited by R. Wardarita. Yogyakarta: Elmatera, pp. 8–9.
[4] Febriani and Indrawati. 2013. 'Pengaruh motivasi, kompensasi, serta lingkungan kerja fisik terhadap kinerja kerja karyawan', vol: 2(5), pp. 541–551.
[5] Hasibuan, Malayu. 2013. Manajemen Sumber Daya Manusia. Jakarta: PT. Bumi Aksara
[6]https://www.seputarpengetahuan.co.id/2016/10/pengertian-lingkungan-kerja-menurut-para-ahli-lengkap.html. Accessed 10 August 2019
[7]https://www.seputarpengetahuan.co.id/2017/08/21-pengertian-kompensasi-menurut-para-ahli.html. Accessed 10 October 2018
[8] Mougbo, Uju. 2013. The Influence of Motivation on Employees' Performance: A Study of Some Selected Firms in Anambra State. Vol.2 (3) July. ISSN
[9] Mujiati (2016) 'pengaruh kompensasi, kepemimpinan dan lingkungan kerja terhadap kinerja karyawan', vol: 5(4), pp. 2369–2395.
[10] Rivai dan Ella Sagala. 2013. Manajemen Sumber Daya Manusia Untuk Perusahaan, Rajawali Pers, Jakarta.
[12] Sedarmayati. 2009. Pengertian Lingkungan kerja
[13] Shahzadi, I. 2014. 'Impact of Employee Motivation on Employee Performance', vol: 6(23), pp. 159–167.

ISBN: 978-602-53420-4-2

MARKETING STRATEGIES FOR *KOPI JEMPOLAN* BRAND OF CATUR TOURISM VILLAGE KINTAMANI

Antonia Kutschenreuter[1], Ni Made Diana Erfiani[2*], Putu Chris Susanto[3], Maria Regina[4]
[1]Heilbronn University Germany; [2,3,4] Universitas Dhyana Pura
*dianaerfiani@undhirabali.ac.id

ABSTRACT

This research aims to find the best marketing strategy for the coffee brand Kopi Jempolan in Catur Tourism Village, Kintamani, Bali. The study employs mixed research methods. Firstly, in-depth interviews with coffee experts are conducted. The group of coffee experts is divided into two sub-groups: coffee plantation owner and coffee shop managers, baristas and employees. Field trips to Catur were conducted to obtain qualitative data. The result of the study firstly explains the competition in advanced and in emerging economies to stress the importance of marketing. In the second stage, the history of coffee is explained, and how the recent development has an impact on the small farmers in Catur. Not only is Kopi Jempolan facing challenges along the way to become a sustained successful brand, the study also suggests that the brand needs to offer a multi-tiered strategy towards different market segment. Thus, using different positioning strategies to target different potential markets. Eventually, the research sets spotlight on finding a comprehensive marketing strategy and evaluates the options. The implementation which was done with this project paper was the development of a coffee tour as an educational agro tour and is explained in detail and in a SWOT analysis.

Keywords: coffee, single origin, marketing strategy

INTRODUCTION

Research has shown that increased competitiveness on a microeconomic level is highly dependent on a successful marketing strategy [1]. As part of the Intrapreneurship in Another Perspective (IAP) program at Universitas Dhyana Pura, the students conduct research and underline the practical project they execute by providing an additional research paper. This paper evaluates, how competitiveness on a microeconomic level of coffee producers in Bali, more specifically for the coffee brand *Kopi Jempolan*, can be improved.

Marketing strategies for coffee producers will be examined and how those can contribute to competitiveness of the coffee selling of their businesses. Therefore, the paper adopts qualitative analyses of strategies to improve competitiveness. More in detail, it will have a look at the coffee brand "Kopi Jempolan" located in the tourism village Catur in the region of Kintamani. The project was implemented through field trips and had research as a base. Marketing is a central part of a successful management of tourism destinations. As Catur is an aspiring tourism destination, the small coffee shop of Kopi Jempolan plays an important role in this development. Therefore, the book "The International Marketing of Travel and Tourism: A Strategic Approach" by François Vellas gives valuable insights in this field. An important part argues what role technology plays in the marketing of tourism sites.

First of all, this paper will give insight in comparison of the factors that increase competitiveness in high-income and low-income countries. The understanding of competition factors helps to better understand marketing decisions. After that, the paper will examine, which steps can be taken in order to increase the competitiveness of Kopi Jempolan. More closely, possible implementations to develop a marketing

ISBN: 978-602-53420-4-2

strategy to attract different target groups will be evaluated. The target groups of Kopi Jempolan will also be presented.

In continuation, a short look into the history and current position of coffee will be provided. With a selling strategy targeted towards customers, one of the outcomes of this project attempts to give a recommendation to the coffee shop in Catur village. Furthermore, the journey from bean to cup will be traced and explained in detail in this paper, as this process will be part of the selling strategy. Finally, the paper will describe the outcomes of the project and a review.

The results of this paper will be to provide information for professionals as well as coffee lovers or soon-to be coffee salespeople who would like to learn more about coffee production and are new to the topic.

METHODS

This study employs mixed research methods. Firstly, in-depth interview with coffee experts are conducted. The group of coffee experts is divided into two sub-groups: coffee plantation owner and coffee shop managers, baristas and employees.

The basis of the field research was an interview conducted with the head of owners of Kopi Jempolan, Mr. Gusti Ngurah Rupa. In advance to the interviews, a questionnaire was prepared. For the interviews, it was necessary to go to the village of Catur. The interview was recorded with the mobile phone. In the interview, which was held at the coffee shop Paramitha Kintamani, Mr. Gusti Ngurah Rupa explained more in detail the production process and information on Kopi Jempolan. One further interview was held with the owner of K'cak coffee, Made Sukayana, in the same coffee shop.

In order to find out whether Kopi Jempolan meets the needs of business owners and coffee connoisseurs, a further interview was conducted with the barista of Expo, Agil Achmad Sofii (Seminyak) and a second one with the barista of Duatiga (Canggu). The interviews were recorded and written down for the use of this paper. A fourth interview was conducted with a coffee producer in Pupuan, who gave insights on his own marketing and distribution strategy.

To analyze the result of the data collection, the key statements were taken from every interview and used as a base in this paper. The interviews were the most important source of data used in this project paper, while the desk research supported the general understanding and background knowledge.

FINDINGS AND DISCUSSIONS

Competition in Advanced and Emerging Economies

Marketing is understood to connect the business' value to the right customer base, in both high- as well as low-income countries. It's a simple concept but it can take on a variety of different shades, especially when this concept is brought to less developed countries. In recent years, competition has gone through fundamental changes with the pursuit of global strategies, like the breakdown of borders and facilitation of international shipping. The advancement in technology, particularly in communication and distribution technologies have had a great impact on those changes in advanced economies. The internet is one of the key tools in marketing for both industrialized and emerging economies. However, it is used to a broader extent in SMEs in industrialized countries. For this, training also plays an important role. It is easier and more accessible for SMEs in developed countries to train their staff on the usage of new technologies than in poorer countries [2].

One more important factor which divides advanced from emerging economies is the facilitation of innovation. In industrialized countries, competitiveness is increased because the frame conditions for an innovative environment are given, e.g. through governmental support and innovation labs. A high capacity for innovation also means that the business is more likely to grow, and new innovations can be presented in marketing.

Another factor that Porter explains is the connection to international markets. In most advanced economy countries, it is easier for businesses to reach the international market than in the low-income economies. In the case of Kopi Jempolan, the interview revealed, that there are challenges for the brand to export to other countries. This is due to the fact that the laws and rules are not clear and little governmental support is provided to train the staff on this topic.

Indonesia can be identified as a low-income country at the factor-driven stage of development. The base of this finding are availability of cheap labor and abundance in natural resources. The essential challenge is, "to move beyond competing solely on cheap labor/natural resources". This means, that improving sophistication not only of production processes on the company level, but also extending the presence along the value chain are vital. To practice customer-orientation, marketing and branding in SMEs are revealed as most significant [1]. Vital to a business environment, where a prosperous growth of enterprises is secured, are the factors infrastructure, educational quality, capital access, and measures related to technology and innovation. However, most low-income countries score low on those measures, for which Indonesia is not an exception.

History and Current Position of Coffee

After world war I, coffee roasters had to move away from a focus on quality and locality, which was when they became part of major industrial empires. They started to concentrate on consistency in price, packaging and flavor. As a result, roasters homogenized blends. They started to use cheaper beans and cut down roasting times to reduce weight loss and mask the poor quality of the beans. Overall coffee quality decreased. As brand competition took the fore in corporate strategies in the US, the product itself became of secondary importance. Homogenization and mass marketing of coffee further increased with the gaining importance of instant coffee after World War II. Growers received a low share of the coffee export prices. However, in recent decades there is improvement for positive of this development [3].

In the past decades, coffee was seen as a beverage that accompanies socializing or as a routine to start the day. In the last years, the industry has seen a considerable change. Worldwide, consumerism shifts the focus on a more sustainable and healthier lifestyle, evolving in many trends. Lately, a strongly growing domestic consumption of coffee can also be seen in the producing countries, especially in the last 20 years, where domestic consumption has doubled. This case can be observed in Indonesia, where consumption of domestic produced coffee is steadily growing. It accounts for around 22% of the total market and although roasted coffee remains the most popular form of coffee consumed, 3-in-1 preparations are rapidly gaining market share and in 2013 accounted for around 30% of the market. The quality and therefore popularity of domestic coffee blends generally grows, so this trend is likely to continue and is eventually evolving in a "third wave of coffee" [3].

The coffee business has undergone some major changes in recent years with the evolving of third wave coffee and an increased consumption of specialty coffee in the 2000s. The "third wave" in coffee describes a movement, where a high quality of coffee is in the focus and coffee is traded as a specialty good. Ponte's research suggests, that until then, roasters were keeping control of the coffee chain to a large extent, with a low margin for producers and retailers and high earnings for roasters such as Nestlé. Since the beginning of the third wave, there are signals that a fragmentation of the market is taking place through new consumption patterns. There is growing importance of single origin, fair trade, organic coffees and specialty coffee, which poses new challenges to 'traditional' roasters, such as the big global players who hold monopolies in the food industry, who sell large quantities of undifferentiated blends of poor quality.

The third wave comes with the emerging of "specialty coffee". The beans for this type of coffee are high quality and new roasting and fermentation methods are used.

While in the last century, black roasted beans were considered as strong and good for making coffee, nowadays baristas all over the world are experimenting with the factors that influence the taste of coffee, like water temperature, grinding grade, fermentation process and roasting. Even the drying location plays a role [3].

Today, coffee is produced in 70 countries of the world, where in 2010 it was estimated 26 million persons were working in the 52 main producing countries (Doc. ICC 105-5). Thus, this makes the sector a major employer in countries of the equatorial plane, having many economies depending on this crop. Originating from Ethiopia, coffee is indigenous to Africa, which is still one of the world's biggest coffee producers. However, the biggest mass of coffee beans is produced in Brazil. Indonesia ranks on fourth place of producing, as well as exporting coffee beans [4].

Farmers and coffee producers have to keep up with the development on the market. On the one hand, coffee producers gain sovereignty, on the other hand this brings new challenges as the adequate circumsances regarding education and sophisticated production process are not yet up to date. which is not always easy for them, as they don't have the chance to get in touch with the end consumers.

The Product of Kopi Jempolan

The brand Kopi Jempolan has a range of products, with various products targeted to different audiences. The above explained evidence that specialty coffee is gaining recognition is especially important for the success for Kopi Jempolan, as the brand is a certified specialty coffee brand since 2007. Kintamani coffee is characterized by a slightly sour taste. This fact is furthermore an important claim which can be used for marketing and thus increase competitiveness. Kopi Jempolan offers different package sizes of specialty coffee. A second product is known as "Bali Kopi", Kopi trubuk, which is coffee of lower quality. It is mostly used in warungs or for home-use. In its way of preparation, it resembles instant coffee, however, is made from real beans without additives. The beans used for Bali Kopi are the ones that were identified as not first grade in the wet process and that were sorted out by hand in the dry process. The preparation of specialty coffee and Bali Kopi is completely different, as Bali Kopi is mostly brewed with just hot water and enjoyed with a lot of sugar by most locals, and specialty coffee requires an elaborate brewing method with a certain water degree for the flavor to be fully embraced.

Marketing Approaches of Kopi Jempolan

1. Word of Mouth

Word of mouth is one of the fundamental means of distribution. Word of mouth can influence others' views, thoughts and their decision. If word of mouth power utilized correctly, it could market any product/services for the long time. In lower income countries word of mouth is one of the most important marketing channels for local businesses. So far, this is also true for Kopi Jempolan. However, it takes more measures to keep up with the development of the coffee market.

2. Social Media

Social media is a phenomenon that has transformed the interaction and communication of individuals throughout the world. Social networking websites are very popular and have become daily practice in a lot of people's lives. Social media is not only a communication tool for amusement, but it is also an important part of marketing strategies in business life. Social Media Marketing offers a variety of tools that can be used very easily and for free, in comparison with other marketing tools. The main purpose of using Social Media Marketing is the amplification of word-of-mouth marketing. They belong among very important business marketing tactics and help to create new business opportunities, develop a stronger market position or modify consumer's behavior. [5] Social Media Marketing can be used by coffee Jempolan through updating an Instagram Channel and a Facebook page. So far, there is already one Instagram account, which is not being updated frequently. To use

Instagram as a marketing tool, it is important to update the page at least weekly, the same is the case for Facebook. Arrivals of new products, pictures with guests and tutorials on brewing methods could be used for content.

3. Booth at a fare and events and flyers

Kopi Jempolan was already present once at a fare in Nusa Dua in February 2018 International monetary funds, where small samples were given out and coffee packages were sold. The result of the participation in this fare was good. For the future, there is a potential for gaining market share and international awareness, if Kopi Jempolan participates in more fares or events. Another opportunity which Kopi Jempolan already took was taking part in a wedding where the coffee was served, so that the brand gained recognition. Serving specialty coffee at weddings can be considered as a new market, which might be worth exploring. Another factor that helps the advancement of recognition for Kopi Jempolan is handing out flyers at the events. Chances are, that one flyer won't just be seen by one person, but more people get to see the flyer, such as for example family members.

4. Salesman

Mr. Gusti Ngurah Rupa has employed one salesman who drives to nearby warungs and coffeeshops to deliver samples of coffee and to raise awareness of the brand in Catur.

5. Coffee Festival

In a brainstorming on which marketing activities can be implemented, the head of K'cak coffee suggested a coffee festival. A coffee festival would boost recognition of Catur village as a coffee producing village, while coffee can be sold, and educational tourism can take place. The location of the coffee festival would be the coffeeshop Catur Paramitha. During the day of the festival, participants could learn about the process from bean to cup. The tour guides could offer several tours to the plantations, to the Luwaks, or solely explain the production process. Moreover, shows about traditional Balinese dance and music can be organized on that day. If participants are western tourists, they might be interested in traditional Balinese cuisine, so it would be a great opportunity to generate revenue also by selling foods and beverages.

Observations and Challenges for Catur

The level of education of the inhabitants in Catur has its roots rather in practical work experience than in academic. There is only little access to academic research or practical academic projects, and the existing is only provided through professors and students of UNDHIRA, which are also supported by grants from the government. So far, no member of UUP Catur Paramitha received any higher education in retail. However, they are supported by a group of men who are part of the group which is developing Catur to become a tourism destination. In this group, the English level is very good, but this also means, that Kopi Jempolan is dependent on the presence of members of this group. The members of this group are currently developing a plan for tourist activities, such as guided tours through the coffee plantations.

Another hurdle for the successful establishment of Kopi Jempolan as an internationally recognized brand is the English skills. For the development of strategies on how to attract foreigners, this is an issue that is not to be underestimated. The communication is especially difficult when it comes to sales conversations and the when customers have questions. This issue was observed several times in Catur, when foreigners wanted to buy coffee and learn more about the product they were buying. Therefore, the practical implementation of this project should bring alleviation.

Social media is a relatively new phenomenon, understanding its benefits as a marketing tool still remains a challenge for SMEs in remote areas [5]. To some extent, derived from observations in Catur Village of Kintamani, it seems that marketing through social media is not taken very seriously. There are some companies who have shown interest and have created their presence, yet there is no serious focus in this innovative marketing tool. So far, the heads of Catur Paramitha Coffeeshop are not actively using social media to promote their brand. In the future, there is high potential to develop this status quo so that Kopi Jempolan reaches more people, also online.

As the village of Catur is located in a quite remote area, the access to technology is not very easy. There is no Wifi provided at the coffeeshop of Kopi Jempolan, which might play a role for tourists as well as for local people in the decision to visit this village or not. Especially for foreigners, who are often dependent on the connection to Wifi, are likely to find the provision of Wifi very useful.

Some Ideas on Marketing Strategies for Kopi Jempolan

The first idea was doing a workshop with the people who are working in the coffee shop. But it is not possible to be done because the English level was not sufficient to participate in a workshop, this would have hindered the successful outcome of a workshop a lot. Besides, every person had a different base of knowledge. The group of men who are currently working on the coffee tour speak English very well and have experience in working with tourists. However, they are not all the time present at the coffee shop Paramitha, and the aim was, to help raise the sales of coffee in the coffee shop. To help raise the sales of coffee, the implementation should help the people who are all the time present at the coffee shop. Another hurdle that would have come with a workshop with Mr. Gusti Ngurah Rupa and his employees is the cultural difference, if a western student held a workshop. While in Western cultures it is easily accepted, that younger people who recently earned a degree work as consultants, in Asian countries this has to be handled with delicacy and respect, especially if foreigners want to help.

The second idea which was suggested by Mr. Gusti Ngurah Rupa was a coffee export. It needs to research on law for the export of coffee and inform the coffee producers on export of coffee. Therefore, he also wanted to know about the best strategies to export his coffee to the international market. One of the questions he asked was about which type of coffee beans was preferred by international customers, such as full was/ natural, or which roasting. To answer these questions, surveys in with different coffee shops abroad would have been necessary, as the question is very difficult to answer.

Furthermore, Mr. Gusti Ngurah Rupa wanted to have information on laws and restrictions of exporting. He stated, that from the government, the laws are not clear to him and wished to have more information about this. However, this problematic goes deep into law and can be very challenging for somebody who doesn't speak Indonesian. Thus, this idea was not developed any further.

The third idea was to set up a food stall offering specialty coffee on campus. The idea of the food stall was to raise awareness of the third wave of coffee for students of universitas Dhyana Pura. With a questionnaire and interviews, a deeper insight on the development of the third wave could have been achieved. As I wanted to learn more about business development and wanted to be part of developing a marketing strategy and learn more about this topic, the other idea seemed more appealing to me. Setting up a food stall needs a lot of preparation and long-term planning.

Some problems that raised in connection with the idea was who will provide the food? How can the students be attracted to order specialty coffee, which would be much more expensive, than the cheaper sachets which can be ordered at the warungs? How can we make sure that the coffee is still warm when served and where and how to prepare it? Which is the right location, date and time, to reach an audience as big as possible? The hurdles for this project seemed very big in the short amount of time that was left when the idea came up, but certainly would have a positive outcome and might be interesting for future Undhira International Students. Interesting of this project would be to observe, how a coffee culture among young people is slowly evolving. This project might even open doors for people who haven't heard about specialty coffee yet and are new to the product, or who would like to learn more about it.

ISBN: 978-602-53420-4-2

The fourth idea was to create a postcard so that people can buy it as a souvenir or send it to other countries. Together with the postcard, it would be interesting to design informational material to give tourists insights different things, like Balinese Culture, the history of the village Catur in Kintamani, or agricultural tours, even through the orange plantations.

Coffee Tour as a Potential Marketing Strategy for Kopi Jempolan at Catur Tourism Village Kintamani

After evaluating the options and weighing the possibilities, taking into consideration which project could have the most impact in a limited amount of time, a sequence of service of a basic retail workshop and a coffee tour seemed to be most appropriate for the given circumstances. Additionally, a brochure will be provided.
There are several coffee plantations that offer so-called "agro-tours" (agricultural tours) so far. Marketing agro-tours for the coffee plantations of UUP Parmitha has a potential which is not exploited to its fullest yet. Therefore, a team of several man who have worked overseas are currently planning on offering agro-tours to tourists in English language, but also for locals in Indonesian language.

Together with this paper, one of the outcomes of this project is to provide a script for employees at the coffee shop Paramitha in English and Indonesian language. Like this, the people working there will be able to learn the words in English they need to explain to tourists who would like to learn more about the processing of the coffee fruit. A tour that guides through the production steps of the beans not only attracts tourists to spend time at the coffeeshop, but also helps to sell the coffee. It is likely that people buy the product after learning about the steps that it takes to produce something, as it gets clear how much work is put until the consumer holds the final product in hands.

Identification of SWOT for Coffee Tour

From the brainstorming sessions and the qualitative part of the questionnaire, several keywords emerged on the discussion of Strengths, Weaknesses, Opportunities, and Threats of a coffee tour at the coffee shop Catur Paramitha site. The perceptive SWOT from observations and two coffee tours is summarized in Table 1.

Table 1. Summary of SWOT Keywords of Coffee Jempolan Coffee Tour

	Positive Factors	Negative Factors
Internal Factors	**STRENGTHS** - Comprehensive coffee experience (following bean to cup) - Beautiful surroundings - Opportunity for learning - Attract tourists to the coffeeshop	**WEAKNESSES** - Lack of facilities for tourists, e.g. wifi at the coffee shop - Lack of promotion and awareness - Transportation access to the coffee shop, thus coffee tour - Not yet integrated/well-planned - Language barrier - Far away from Denpasar/Kuta - Other tourist attractions not yet elaborated
External Factors	**OPPORTUNITIES** - Raises the reputation of the village as an educational tourism site (different learning opportunities, such as orange plantation, herbal plants, culture, etc.)	**THREATS** - Many competitors, saturated market - Lack of tourists in rain season - No tourists because of missing marketing - Not always a tour guide at the

ISBN: 978-602-53420-4-2

- Development of coffee tourism - Raises chances to sell coffee - Raises people’s willingness to spend more money, as they know about the difficult production process - Coffeeshop to function as a viral spot so that Millennials would want to come and participate in a coffee tour - Coffee tour as a pit stop for Denpasar-Singaraja route for organized tourist tours - Operators bringing tour groups - Increased popularity in social media because of group pictures at the end of each coffee tour	coffeeshop, that people come and wish for a tour and they can’t do the tour - Employees don’t find utility in the coffee tour and don’t continue the offer - Tour groups not interested to come - Tour is not booked by many people, but tour guide has to be present - Communication of offer not clear to visitors and tourists

The findings evolved after several visits and observations, as well as brainstorming in the coffee shop. There are internal factors that count in strengths and weaknesses, and external factors such as opportunities and threats that come along with a coffee tour. A coffee tour has several advantages, but disadvantages should also be taken into consideration.

Firstly, it attracts customers. There is a high chance, that tourists, but also locals who are coffee drinkers, are attracted by this offer. So if they attend a tour about coffee, it is likely, that after the tour they will also buy the coffee. A second advantage is, that coffee tours would also raise the recognition of Catur as a coffee producing village, as the audience is bigger. Some people might come with the aim of tasting specialty coffee, others might come for the tour and some people might only come to buy the coffee.

Not only for coffee lovers, but also for people who seek to work as baristas, a coffee tour could be a useful instrument for education purposes. So that for example university students who seek a degree in hospitality learn about the process of production. For this, Catur might charge a small fee for the tours, and students could have a sequence of service at the coffee shop which allows them to practice explaining the knowledge they have gained at the coffee tour. Knowledge about coffee can also be helpful in finding a job for students, so the brand Kopi Jempolan could give certificates for attending a barista course or having special knowledge in the field of coffee production, which is now a trend and will be more and more important for hotels.

Besides opportunities, a coffee tour also brings responsibilities and thus weaknesses and threats with it. The main threat is the already highly saturated market of coffee tours offered. However, this fact is not necessarily a threat, as on the route between Denpasar on the way to Singaraja there are not so many tourist attractions yet. Another threat is, that due to a lack of marketing activities through the stakeholders in Catur, tourists are not aware of the offer. Therefore, a small workshop on the usage of social media to promote those activities was very helpful with the guides who will offer the tours.

If the coffee tour is not continuously offered, there might be the threat that the stakeholders don’t find the coffee tour useful anymore, so that the tour is not pursued and will fall into oblivion. Lastly, the communication of the coffee shop has to be very clear, on which dates a coffee tour is offered and this information should be posted and updated constantly. If this is not the case, it might happen, that tourists and visitors come with the expectation of participating in a coffee tour. If then there is no tour guide, that would leave behind a dissatisfied customer.

CONCLUSION

Catur village in the region of Kintamani has a high potential to become an important area in educational tourism for locals but also for foreign tourists. According to the analysis in this study, along with natural resources, also human resources can be developed to make the area attractive and build sustainable success. Sustainable success means, financial security for the villagers, opportunities and support for the stakeholders and benefits for the people who are interested in learning about culture and coffee in Bali.

To raise recognition and awareness of the offers in Catur, marketing strategies are the foundation of success. As such, the most appropriate strategies would be to use social media as much as possible. It is identified to be an easy to use and free of charge tool. Secondly, to be present at official and public and private events if there is the chance could raise recognition and reputation of Kopi Jempolan as a specialty coffee producer. Another marketing strategy, which would boost the popularity of Catur as a coffee producing village, would be a coffee festival. This idea could even be elaborated by one of the future international students at Universitas Dhyana Pura.

The opportunity to take advantage of is the rise of *coffee connoisseurship,* is identified to be of high potential for coffee producers in Catur. Young people are becoming more and more interested about where their coffee comes from and how it is produced/processed. For this positive development, the stakeholders in Catur should try to alleviate the weaknesses that they have, in terms of developing technology such as Wifi for visitors, accommodation and other tourism-related facilities. As a coffee tour is in the focus of the project, this paper provides a SWOT analysis and to evaluate this offer. By using SWOT Analysis for a coffee tour, it was determined that the strengths of this activity outweigh its weaknesses and that the opportunities for the development of tourism particularly educational tourism outweigh the threats. The suggestion is to pursue a coffee tour at the coffee shop Catur Paramitha. By teaching visitors about the production process of coffee, coffee drinkers gain awareness of how difficult the steps are and how much effort is put in the cultivation of coffee. A positive outcome is that people who have knowledge about the process would spend more money on coffee, which would contribute to the development of a fair price for coffee producers.

Lastly, it can be said, that a coffee tour could be a truly unique experience for tourists visiting from abroad, but also local visitors and students. Therefore, it is important to stay competitive and differentiate the experience from the offers of competitors, for which Catur has a potential.

REFERENCES

[1] Hossain, A., Naser, K., Zaman, A, and Nuseibeh, R. (2009). "Factors influencing women business development in the developing countries", International Journal of Organizational Analysis, Vol. 17 No. 3, pp. 202-224. https://doi.org/10.1108/19348830910974923. Emerald Group Publishing Limited/

[2] Rugova, B., and Prenaj, B., (2016). "Social media as marketing tool for SMEs: opportunities and challenges", Academic Journal of Business, Administration, Law and Social Sciences IIPCCL Publishing, Tirana Albania Vol. 2 No. 3 November 2016.

[3] Camilleri, M.A. 2018. *Tourism Destination Channels. Travel Marketing, Tourism Economics and the Airline Product*. Springer International Publishing.

[5] Vellas, F. and Becherel, L. 1999. *The International Marketing of Travel and Tourism: A Strategic Approach.* Palgrave.

[6] Ponte, S. 2001. The ‘Latte Revolution? Winners and Losers of the Reconstructuring of the Gloval Coffee Marketing Chain. Denmark: Centre for Development Research.
[7] Porter, M.E. 2002. Building the Microeconomic Foundation of Prosperity: Findings from the Microeconomic Competitiveness Index. Harvard Business Review.

THE DESCRIPTION AGE AT MENARCHE AND PREPARATION FOR MENSTRUATION OF CHILDREN AGED BETWEEN 10-11 YEARS

Ni Made Diaris[1], Agus Donny Susanto[2]
[1,2] Faculty of Health Sciences and Technology Universitas Dhyana Pura
* madediaris@undhirabali.ac.id

ABSTRACT

The previous studies has shown that the age of menarche appears at earlier age. It indicated the age of puberty appears at younger age. There are many physical and psychological changes occur at puberty. The aims of this study are to analyze age distribution of menarche and the preparation in facing early menarche. This research used descriptive quantitative method; the data was collected by questionnaires from 140 respondents aged between 10 and 11 years. It analyzed the distribution of age at menarche and preparation for menstruation The quantitative research data showed that 15% respondents had menarche. All of respondents who had menarche, 52% respondents have menarche was 11 years old, 43% at 10 years old, and 5% respondents have menarche at 9 years old. The most of respondents in 74% said they are not ready to face of early menarche. In conclusion, there are respondents who had menstruated at an early age, starting from 9 years and most of them occur at the age of 11, preparation for menstruation, most of them are not ready to face menstruation. This research suggests that more comprehensive education program and psychological supports especially from parents should target girls to prepare them for an early menarche.

Keywords: Adolescent Girls, Menstruation, Menarche, Preparation

INTRODUCTION

One the purposes in developing healthiness in Indonesia is to reach Indonesia's healthiness in every subject in physic and psychologies. One the subject will concern is on reproduction healthiness. Information about reproduction healthiness in pre puberty child mostly to be concern, especially on child in menarche period which will shows sign of puberties, menarche and first time period.

Based on the research of the age of children that have menarche on the first time it is occurred earlier. Many factors that have influenced, such as follows the factor of genetic, environment and nutrition status [1,2]. Survey is done in Indonesia in the year 2010 showed that the most of girls in Indonesia have menarche in the age of 12-14 years. (the rate of age 12,93) [3].

The girl has puberty and menarche occur many physical and psychological changes, especially to girl that has menarche earlier. On this situation if the child don't have any information and education about menarche and supported from people around them. It can creates feeling and negative behavior such as disgrace and fearful [4]. The aims of this research are to find out the age menarche distribution for the girl in the age 10-11 years and preparation for the girl in the age 10-11 years to face their menarche.

METHODS

The method is used for the research is descriptive quantitative method. The instrument is used by questionnaire which is contains question about age at menarche, menarche status and preparation for the children facing their menarche. Population on this research is children among puberty. This research is done in elementary school in Denpasar. The respondent of this research was the students in grade 5th and 6th and the age of 10-11 years the total is 140 students. These data will analyst by SPSS (Statistical Package for the Social Sciences). It analyzed the distribution of age at menarche and preparation for menstruation.

FINDINGS AND DISCUSSIONS

The research findings indicate that 15% respondent got menarche and 85% didn't get menarche (Table 1). From 21 children in the age of 10-11 years got menarche in the age of 9 years was 5%, menarche in the age 10 years was 43% and menarche in the age 11 years was 52% (Table 2).

Table 1. Distribution of Menarche Status in Children Aged Between 10-11

Menarche Status	Frequency	(%)
Not Menarche	119	85
Menarche	21	15
Total	140	100

Table 2. Distribution of Aged at Menarche in Children Aged Between 10-11

Aged at Menarche	Frequency	(%)
9	1	5
10	9	43
11	11	52
Total	21	100

As the time goes by the age menarche is happened earlier before. It caused many factors are genetic, nutrition status and environment. The ages of mother's menarche has relationship in child's menarche. It is show, one of influence factor of menarche time is mother's genetic on mother' menarche time. The result before showed there was relation between body mass index (BMI) with the action menarche earlier [1]. The other result in Asia, in Seoul Korea, there was similar characteristic in Indonesia found that the age menarche earlier and that relation with BMI someone [2,4]. The improvement of BMI in the children aged had decrease menarche age 5.2 months [5]. Child which have got sexuality experience since early stages will increase on timing of menarche. Early menarche associated with childhood sexual abuse.

Based on the data shown in Table 3, it indicates that from 141 children in the age 10-111 years that ready to face the menarche was 18%. The most of children was 82% said not ready to face the menarche. The research got the result that preparation to children facing the menarche is lack of preparation, from the qualitative result found that many of children feel shame, scare, and worry when asking how they feel when they will get the menarche [6,7]. There was relation between knowledge and preparation to children in facing menarche. The children have good knowledge about menarche tend to ready facing the menarche [8].

Table 3. Children Preparation in the age 10-11 years in Menarche

Preparation	Frequency	(%)
Ready	25	18
Not Ready	115	82
Total	140	100

ISBN: 978-602-53420-4-2

CONCLUSION

There are respondents who have menarche or menstruated in the earlier age. It started in the age 9 years and the most of occurs in the age of 11 years. For the preparation of the menarche, most of the children are not ready to facing the menarche. Suggestion more comprehensive education program and psychological supports especially from parents should prepare the children to facing menarche earlier.

REFERENCES

[1] Mumby HS, Elks CE, Li S, Sharp SJ, Khaw KT, Luben RN, et al. Mendelian randomisation study of childhood BMI and early menarche. J Obes. 2011;2011.
[2] Ko K, Park SK, Kim Y, Bae J, Gwack J, Yoo K. Reproductive History. 2008;41:181–5.
[3] Batubara JSoesanti Fvan de Waal H. Age at menarche in indonesian girls: a national survey. Acta Med Indones. 2010;42:78–81.
[4] Frank M.BiroMD AshleyPajakMS Mary S.WolffPhD Susan M.PinneyPhD Gayle C.WindhamPhD Maida P.GalvezMD MLCGLHKSLT. Age of Menarche in a Longitudinal US Cohort. J Pediatr Adolesc Gynecol [Internet]. 2018;31:339–45. Available from: https://www.sciencedirect.com/science/article/pii/S1083318818302122
[5] P.GardnerdKathleenPajerde A links open overlay panelPatricia BRJSZF. African-American/white differences in the age of menarche: Accounting for the difference. Soc Sci Med. 2012;75.
[6] Diaris NM, Listyowati R, Januraga PP. Readiness of girls aged 10-12 years for an early menarche: a transtheoretical model of behavioural change analysis. Public Heal Prev Med Arch. 2017;5:55.
[7] Kholoud K. Alharbi, Afnan A. Alkharan, Doha A. Abukhamseen, Maryam A. Altassan, Wareef Alzahrani and AF. Knowledge, readiness, and myths about menstruation among students at the Princess Noura University. J Fam Med Prim Care [Internet]. 2018;7(6):1197–202. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6293938/
[8] Elih Rohmah, Refirman Djamahar SR. Relationship between Knowledge of Menstruation with the Female Teenage Readiness in Facing Menarche. BIOSFER. 2015;8.

SQUARE STEPPING EXERCISE IMPROVE SHORT-TERM MEMORY IN ELDERLY

Indah Pramita
Universitas Dhyana Pura
indahpramita@undhirabali.ac.id

ABSTRACT

Elderly is an advanced process that has a lot of decline in function, one of the decline that occurs is memory. Short-term memory is the most decreased in the elderly. The purpose of this study was to examine the effects of Square Stepping Exercise (SSE) on Short-term memory in the elderly. This was a pre-test post-test group design. Twentyseven elderly (60 years and older, 85% women) were recruited. Participants are asked to memorize the pattern of steps that have been given, then follow step patterns on a 4 by 10 square-patterned SSE mat without viewing printed pattern diagrams. Participants do exercise 30-45 minutes / day, 3 times a week for 4 weeks. Short term memory evaluated using mini COG. Improvement of short-term memory occurs by 28, 93% (p = 0.001). The results of the study is that the provision of Square Stepping Exercise can improve short-term memory in the elderly

Keywords: *Elderly, Square Stepping Exercise, Short-term memory*

INTRODUCTION

The elderly is a process that has a lot of decreased function, one of the decreases that happened is memory. The normal ageing decreasing memory happened because of physiology to the neurologist system. The change of brain structure will be happened, including the decrease of brain heavy and volume. Brain will decrease active neuron from substansia nigra and substansia alba [1]. So that create cognitive function decreased, one of it is short term memory. Physically activity that well prepared can give the positive impact to physiology capacity of human brain, one of the functions is short terms memory. The elderly that has exercised regularly, having motivation, having big self-dependent, decreasing chronic disease and increasing fit physically. The research showed that active individual physically much longer getting decreasing memory. Aerobic exercise intervention is shown cognitive increase and memory to the seniors. An elder by doing aerobic exercise regularly can improve their memory increasing, that caused by increasing vascularity in hippocampus area. This is proven by giving aerobic exercise issues the brain plasticity to elder [4]. Dual task exercise there are motoric exercises combined with memory exercise based on several researches is proven to increase short term to the elderly. Dual task exercise can increase executive function to the brain wire [5] and can increase brain plasticity related to memory function [6]. The research by Gregory et al, 2017 stated that by giving dual task exercise has been shown to improve memory function to the healthy aged.

Square stepping exercise (SSE) is one of the dual task exercises that combined stepping exercise to memorize the pattern of stepping. SSE is an exercise that can be done by self-exercise and group with lower price and easy to apply. This exercise use box square pattern with size is 25 cm2 estimated 40 boxes to a floor mat. This exercise should be elder doing the pattern of stepping to the front, the back and besides [8]. The exercise is given by the pattern of stepping that has been set without to see the pattern created. The elderly asked to remember the pattern of stepping first before doing this exercise. By this task stepping to memorize the pattern is proven to increase memory to the elder. Texeira et al, 2013 stated that SSE can increase cognitive function; one of them is the health of elderly memory [9]. Besides that, Túbero et al, 2014 has done of this related research that proving the patient with cerebrovascular can increase cognitive function after doing SSE exercise. The aim of this research is to find out the effect of SSE to increase short term memory to elder.

METHODS

Design

This research is done in nursing home Sejahtera Denpasar in April – May 2018. The subject is given SSE exercise 3 times in a week and doing for 4 weeks. The design of research was pre-test and post-test.

Population and Sample

The population of this research was the elder that lived in the nursing home Sejahtera, Denpasar. The total sample of this research is 27 people that have fulfilled the criteria's as follows: the elder with the age of 60–74 years, there is no distraction problem to the lower extremities. Clear to see without any assistance and to use eyeglasses, have active communication, and there is no heart and lung distraction.

Collecting data

The collecting data is done before and after doing SSE treatment. To give mark short term memory is done by measurement used to Mini Cognitive Assessment.

Treatment Protocol

SSE teratment is done in 4 weeks, 30-45 minutes, 3 times a week. This research needs small effort, none to warm-up and cool-down. SSE is done in the mat with pattern is 25 cm^2 estimated 40 boxes. The elder asked to step forward, backward and beside for each pattern. For the sequence of teratment is related to the rate of difficult pattern. In this teratment program is given 4 different patterns. The participant followed the instruction to stepping that has been set without to look pattern created. Each pattern is repeated 10 times. In the first week the participant asked to do stepping pattern 1 and 2, in the second week the participant followed stepping pattern 1, 2 and 3 and for the third week and fourth the elder followed stepping pattern 1, 2, 3 and 4.

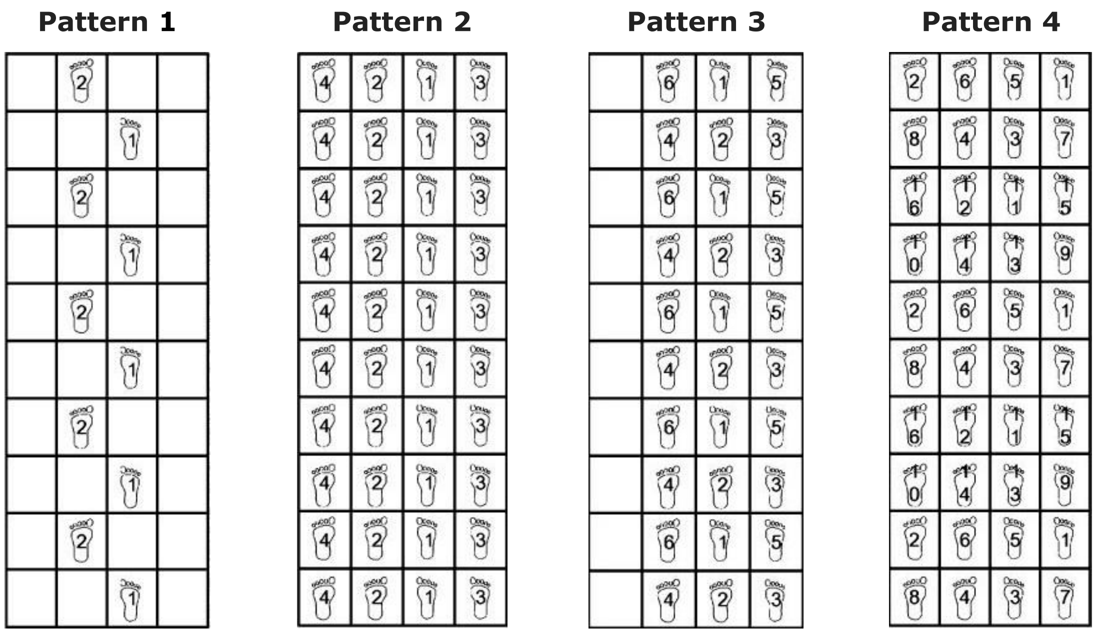


Figure 1. Pattern SSE

Data Analysis

Data Analysis is done as follows:

1. Descriptive Statistic
2. Data Normality Test uses Shapiro-wilk test
3. Analysis of treatment effects uses Wilcoxon rank test

FINDINGS AND DISCUSSIONS

This research is participated 27 elders with the age more than 60 years old divided into 4 men and 23 women. Participant took the exercise 4 weeks started from April until May 2018. Table 1 summarizes the demographic characteristics of the sample.

Table 1. Demographic Characteristics of the Sample

Characteristics		Group (n=27)	
		n	%
Age	60-64	5	25.9
	65 -69	10	37
	70-74	12	37.1
Sex	men	4	14.8
	women	23	85.2

According to table 1, it can be seen from the characteristic of age and gender. The age of 65-69 years was 10 people (37%) and the age 70-74 year was12 people (37.1%). For men were 4 people (14.8%) and women were 23 people (85.2%).

Data Analysis Of Descriptive Value Mini Cog to Elder

As indicated by Table 2, it can be seen the rate before taking the exercise was 3.55 and for the rate after taking the exercise was 4.59. The rate of memory increasing before and after taking the exercise was 28.93%.

Table 2. Descriptive Mini Cog Test Scores Before and After Training

Mini Cog	Group (n=27)		
	pre	post	improvement
Min	0	1	
Max	5	5	
Mean	3.55	4.59	28.93%
SD	1.52	0.93	

Data of Normality Test

According to Table 3 there a point p before was 0.001 and point p after was 0.0001 the data can be stated abnormal distributed.

Table 3. Mini Cog Normality Test

Mini Cog Value	*Saphiro Wilk test (p)*
Pre test	0.001
Post test	0.0001

Value Test Mini Cog Test Before and After Treatment

Table 4 indicates that value of Mini Cog Test before and after treatment with analysis test using Wilcoxon rank test showed the value p= 0.0003. The result of value stated significant giving Square Stepping Exercise can improve short term to elder.

Giving Square Stepping Exercise to elder has been shown to improve cognitive function, one of the exercise was short term memory [9]. SSE treatment required participant visualized and memorize stepping pattern then follow the pattern on the mat. This exercise need good concern, memory and plan to taking the best exercise. The ability of elder memory and concern is decreased [11]. There was an effort to memorize pattern it caused improving short term memory to elder.

Table 4. Hypothesis Testing Mini Cog Test Before and After Training

Group	N	*Wilcoxon rank test*	
		z	*p*
Pre test	27	-3.573	0.0003
Post test	27		

In SSE application asked to stepping 10 times every pattern, in stepping activity includes aerobic activity. By doing the aerobic activity regularly, it can be improved short term memory to elder. Improving memory is related with blood vascularisation better in the area of hippocampus in the brain [7]. Whereas the role of hippocampus is control of emotion, and memorize to the person. If vascularisation in the hippocampus have increased, it can be produced neuroplasticity in the brain that can improve to memory of someone [6].

CONCLUSION

Based on the result of the research, it can be concluded square stepping exercise treatment reacted to improving dynamic balance to elder.

REFERENCES

[1] Brucki SMD. Envelhecimento e memória. In: Andrade VM, Santos FH, Bueno OF, eds. A Neuropsicologia Hoje. São Paulo: Arts Médicas, 2004; 389–402
[2] Gobbi S, Villar R, Zago A. Bases teórico-práticas do condicionamento físico. Rio de Janeiro: Guanabara-Koogan, 2005 (in Portuguese).
[3] Barnes DE, Yaffe K, Satariano WA, et al. A longitudinal study of cardiorespiratory fitness and cognitive function in healthy older adults. *JAMA*. 2003; 51: 459–65.
[4] Maass, A., Düzel, S., Goerke, M., Becke, A., Sobieray, U., Neumann, K., ... & Ahrens, D. (2015). Vascular hippocampal plasticity after aerobic exercise in older adults. *Molecular psychiatry*, *20*(5), 585
[5] Pichierri G, Wolf P, Murer K, and de Bruin ED. Cognitive and cognitive-motor interventions affecting physical functioning: a systematic review. *BMC Geriatr*. 2011;11(1):11-29
[6] Kramer AF, Bherer L, Colcombe SJ, Dong W, and Greenough WT. Environmental influences on cognitive and brain plasticity during aging. *J Gerontol A Biol Sci Med Sci*. 2004;59(9):M940-M957
[7] Gregory, M. A., Silva, B. S., Narlon, C., Gill, D. P., McGowan, C. L., Liu-Ambrose, T., ... & Petrella, R. J. (2017). Combined dual-task gait training and aerobic exercise to improve cognition, mobility, and vascular health in community-dwelling older adults at risk for future cognitive decline 1. *Journal of Alzheimer's Disease*, *57*(3), 747-763.
[8] Shigematsu Ryosuke, et al., 2008. Square Stepping Exercise versus strength and balance training for fall risk factors. *Aging Clinical and Experimental Research*, Vol 20, No 1, hal 19-24
[9] Teixeira, C. V. L., Gobbi, S., Pereira, J. R., Vital, T. M., Hernandéz, S. S. S., Shigematsu, R., & Gobbi, L. T. B. (2013). Effects of square-stepping exercise on cognitive functions of older people. *Psychogeriatrics*, *13*(3), 148-156
[10] Túbero, G. S., Gobbi, S., Teixeira, C. V. L., Pereira, J. R., Shigematsu, R., & Canonici, A. P. (2014). Effects of square stepping exercise in patients with sequel of cerebrovascular accident.
[11] Angevaren M, Vanhees L, Wendel-Vos W *et al*. Intensity, but not duration, of physical activities is related to cognitive function. *Eur J Cardiovasc Prev Rehabil* 2007; 14: 825– 830.

DIFFERENCES IN PROTEIN, VITAMIN C, AND FE INTAKE IN ADOLESCENT GIRLS BY GIVING FE AND VITAMIN C TABLETS

Ni Putu Eny Sulistyadewi[1], Ni Putu Ratih Linggayoni[2], Resti Kusumarini Samben[3]
[1,2,3]Department of Nutrition Universitas Dhyana Pura
enysulistyadewi@undhirabali.ac.id

ABSTRACT

Teenagers are the time of transition from children to adults. The nutritional needs of adolescence become very important because it impacts on its growth. Protein intake, Vitamin C and iron deficiency in adolescent girls can cause nutritional disorders in adolescent. Lack of iron intake can cause anemia. The aims of this study is to determine differences in protein, vitamin C, and Fe intake in adolescent girls by giving Fe and Vitamin C tablets. This study used a quasy experimental design with pre-test and post-test control group design. Sampling have done by purposive sampling on 52 people. The results showed that in the intervention group in the administration of Fe and Vitamin C tablets showed a significant difference for Fe and Vitamin C intake (p = 0,000), whereas for protein intake there was no significant difference (p = 0.202) before and after the intervention. In the control group by giving Fe tablets show significant differences for protein intake (p = 0.008), and Fe intake (p = 0,000), whereas vitamin C intake was no difference before and after the intervention (p = 0.038).

***Keywords**: Protein intake, Vitamin C, Fe, Adolescent Girls*

INTRODUCTION

Teenagers is a transition period from children to adult, where adolescent growth is related to the nutritional fulfillment status. Poor consumption of iron in adolescents can cause anemia in adolescents, especially for young women. In general, anemia sufferers do not know the condition and still consider it as a problem that does not need to worry [1].

Iron nutrient anemia is anemia caused by a lack of iron in the body. Iron deficiency can be caused by several things, such as low food intake of iron or iron in foods that are in forms that are difficult to absorb [2]. Girls aged 10-19 years who have entered puberty and menstruated, will need more nutrition in their bodies. At that age, adolescents experience rapid growth and weight gain [3]. In addition, iron loss of 12.5 mg or 0.4-0.5 mg occurs every day during menstruation so that adolescent girls are prone to anemia [5]. The need for iron will increase in adolescent girls due to menstruation [6]. In general, women tend to have lower iron stores compared to men and this makes women more vulnerable to iron deficiency when iron intake is less or needs increase such as menstruation [7].

The prevalence of anemia in adolescent girls is still quite high, according to the World Health Organization (WHO), the prevalence of anemia in the world ranges from 40-88%. The total population of adolescents (10-19 years) in Indonesia is 26.2% which consists of 50.9% men and 49.1% women. Based on the results of the 2013 Basic Health Research, in Bali showed that 25% of adolescent girls had anemia [8].

According to the Indonesian Ministry of Health 2013, one of the long-term consequences of anemia in adolescent girls is decreasing fitness so that it will hamper sports performance and productivity. Micro nutrient deficiencies in adolescence can have a negative impact on the process of growth and maturity of the reproductive organs [6]. Biochemically vitamin C has various roles namely, enriching biological reductant as an important cofactor for metal reduction reactions such as iron and copper, as a protective

ISBN: 978-602-53420-4-2

antioxidant, reductive cofactor for hydroxylation during collagen formation, plays a role in the function of oxygenation systems, carnitine biosynthesis and increases absorption and metabolism of iron [9]. Research results Pradanti, et al show that there is a relationship between the adequacy level of vitamin C and Fe with hemoglobin levels [10]. Zulaekah results showed that iron supplementation, combined with vitamin C was more effective in raising hemoglobin levels to reduce the prevalence of anemia [11].

Responding to the above, the Ministry of Health of the Republic of Indonesia created a Nutrition Anemia Prevention Program for Young Women and Fertile Women. The prevention of nutritional anemia in this program is done by giving blood-added tablets (Fe) containing Ferro Fumarat equivalent to 60 mg Fe and 0.40 mg Folic Acid. However, this program has not included the provision of Vitamin C as part of efforts to increase hemoglobin concentrations. Therefore, this study was conducted to determine differences in protein, vitamin C, and Fe intake in adolescent girls by giving Fe and Vitamin C tablets.

METHODS

This research is an experimental study using quasy-experimental design with pre-test and post-test control group design. The population in this study were all students in class XI of SMA Negeri 1 Kediri the total is 226 people. Sampling is done by the method of non-probability sampling through purposive sampling, which is the technique of determining the sample with certain considerations as desired by researchers. The initial stage of sampling is to do initial screening. Initial screening was carried out by conducting socialization regarding the study of the addition of 50 mg vitamin C in the administration of Tablets Adding Blood (Fe) to the Increased Concentration of Hemoglobin in adolescent girls. Then a random sample was taken and those who were willing to be respondents were not ill or bleeding.

The determined sample was then divided into 2 groups, namely the treatment group (Fe and Vitamin C Tablet) and the control group (Fe Tablet). The sample size in this study were 52 people. The inclusion criteria in this study are students of class XI at SMA Negeri 1 Kediri, who have menstruated, are willing to consume Fe and Vitamin C tablets for 1 month, and are willing to be respondents and are not in a sick / bleeding condition. Exclusion criteria in this study were students who in the research process resigned from the sampling technique, and students who were suffering from chronic pain (tuberculosis, diarrhea or other diseases that required routine control).

Data used in this study were intake data obtained from the results 24-hour recall, and nutritional status data obtained from the calculation of height and weight then measured body mass index (BMI). The instruments used in this study include questionnaires, 24-hour recall form, digital weight scales, and microtoise. The data obtained were analyzed descriptively and using paired sample t-test and independent sample t-test.

FINDINGS AND DISCUSSIONS

Respondents in this study were adolescent girls in SMA Negeri 1 Kediri. Characteristics of respondents in this study include the age of respondents, namely 16 years old as many as 20 people and 17 years as many as 32 people. In this study respondents were divided into 2 groups, each group consisting of 26 people. The characteristics of respondents based on their age and parents' occupation can be seen in Table 1.

Table 1. Characteristics of Respondents

Variable	Group		Total
	Fe dan Vit C n=26	Fe n=26	
Ager (year)			
16	9 (34,3%)	11 (5,8%)	20 (38,5%)
17	17 (65,4%)	15 (57,6%)	32(61,5%)
Parents Occupation			
Entrepreneur	11 (42,6%)	9 (34,5%)	20 (38,5%)
General Employees	8 (34,6%)	9 (30,7%)	14 (26,9%)
PNS	2 (8,3%)	3 (12,5%)	5 (41,6%)
TNI	1 (4,1%)	0	1 (2,0%)
Farmer	2 (8,3%)	3 (12,5%)	5 (41,6%)
Worker	1 (4,1%)	1 (4,1%)	2 (4,1%)
Driver	1 (4,1%)	0	1 (2,0%)
Polri	0	1 (4,1%)	1 (2,0%)

Source: Primary Data, 2018

Based on the above table, it is known that the majority of respondents were 17 years old, as many as 32 people (61.5%). Most of the respondent's parents occupation as entrepreneurs, as many as 20 people (38.5%). Adolescent girls who are 17 years old and have experienced menstruation are more prone to experience anemia [12]. The factors that can affect anemia in adolescent girls are body image, diet and eating disorders, habits to limit food consumption and dietary restrictions [13].

Occupation of parents determines their socioeconomic level, individuals with low socioeconomic status tend to have difficulty in meeting their nutritional needs [14]. Parents' income influences the purchasing power of the food itself, and influences the intake of nutritious food for young women, where the amount of iron is less in influencing anemia in young women [13].

Table 2. Mean Changes in Weight (Pre-Post) of Respondents

Group	Weight		Δ mean (%)	p
	Pre mean±SD (kg)	Post mean±SD (kg)		
Fe dan Vit C	48.06±5.62	49.23±5.44	0.85 (1.76%)	0.000
Fe	48.38±5.95	48.83±5.96	0.45 (0.39%)	0.000

t-Test

Table 2 shows the mean change in body weight in the Fe and Vitamin C groups which increased by 0.85 kg (1.76%), much higher than the Fe group that only experienced changes of 0.45 kg (0.39%). Based on the results of the t-test it was found that each group experienced a significant difference with a value of p = 0.000 <0.05, which means there was a change in body weight before and after the intervention.

Table 3. Mean IMT (pre-post) change between treatment groups

Group	Status Gizi		Δ mean (%)	p
	Pre mean±SD (kg/m²)	Post mean±SD (kg/m²)		
Fe dan Vit C	19.37±1.58	20.1±1.80	0.73 (3.77%)	0.013
Fe	19.24±1.89	19.26±1.89	0.02 (0.10%)	0.649

t-Test

Table 3 shows that the mean change in nutritional status in the Fe and Vitamin C groups increased by 0.73kg / m2 (3.77%), which is higher than the group given Fe which was 0.02kg / m2 (0.10%). T-test results showed that there were significant changes in the Fe and Vitamin C groups, with a p value = 0.013 <0.05, which means there were differences in nutritional status before and after the intervention. Meanwhile, in the Fe group there was also a change in BMI but did not experience a significant difference marked by the value of p = 0.649> 0.005.

Vitamin C is a water soluble vitamin that helps the body absorb iron. Vitamin C functions as an antioxidant in maintaining endurance and can provide important benefits in supporting normal body growth [15]. Teenagers who have good immune system will not be easily affected by infectious diseases, because infectious diseases can reduce appetite in adolescents [16]. Food intake in adolescents affects the increase in body weight, weight gain during adolescence accounts for about 50% of the ideal adult body weight. Food intake contains at least fat, in adolescent girls the peak of body fat increase occurs between the ages of 15-17 years. Percent of body fat affects the maturity of adolescent girls' reproductive stages so that it affects weight at adolescence, weight gain affects the nutritional status of adolescents. [17].

Table 4. Comparison of Nutrient Intake Between Treatment Groups Before and After Intervention

Intake	Pre		Post		Δ mean	p
	Fe and Vitamin C (n=26) mean±SD	Fe (n=26) mean±SD	Fe and Vitamin C (n=26) mean±SD	Fe (n=26) mean±SD		
Protein	43.98	39.99	45.99	43.53	1^a. 2.01	1^c. 0.202
					2^b. 3.54	2^d. 0.008
Fe	10.56	9.95	69.14	69.00	1^a. 58.58	1^c. 0.000
					2^b. 59.05	2^d. 0.000
Vitamin C	22.76	17.10	65.85	20.83	1^a. 43.09	1^c. 0.000
					2^b. 3.73	2^d. 0.038

Note : 1^a = the results of the average nutritional intake of Fe and Vitamin C groups
2^b = the results of the average nutritional intake of the Fe group
1^c = t-Test results for Fe and Vitamin C groups
1^d = t-Test results for Fe groups

Based on Table 4, it is known that in the intervention group with Fe + Vitamin C, there were significant differences in the intake of Fe and Vitamin C which were marked by p = 0.000 <0.05, whereas the protein intake did not experience significant changes before and after the intervention. In the Fe group there was a significant difference in protein intake marked by p = 0.008 <0.05, and Fe intake was marked by p = 0.000 <0.05, whereas in vitamin C intake there was no difference at the time before and after the intervention.

The results of intake measurements in the Fe group carried out before and after the intervention experienced a significant difference compared to the Fe + Vitamin C. Group. According to the nutritional adequacy rate (RDA), the Fe's need for adolescents was 26 mg per day and 75 mg daily for vitamin C. In this study found that Fe intake in both groups after the intervention was seen to increase significantly. Before the intervention the intake of Fe in both groups was very less, but after being given the intervention of Fe tablets for 1 month there was an increase of 58.58 mg in the Fe + Vitamin C group and 59.05 mg in the Fe group. This is because they are given Fe tablets as well as other food intake such as water spinach and eggs that contain iron. Iron in the body can combine with protein so that it can receive and release oxygen and carbon dioxide. Iron is an essential mineral. Good sources of iron include meat, nuts, grains, soybeans and dark green vegetables [18]. Absorption of iron in the body occurs in the small intestine duodenum, whose settings depend on the body's needs. After being absorbed by the small intestine, Fe is transported by blood and distributed throughout the body bound to transferrin proteins. Iron (Fe) is used among other things for respiratory enzymes, Fe in blood plasma, production of hemoglobin and red blood cells in bone, in the liver, lymph and others [19]. Iron has a number of important roles for the body, namely as a carrier of O2 and CO2, formation of red blood cells, and part of enzymes. Iron when combined with vitamin C can accelerate the absorption of iron in the body [19]. In the research that has been done, there was an increase in vitamin C intake in the Fe + Vitamin C group because this group was given vitamin C 50 mg once a week for 1 month. Provision of Fe + Vitamin C can increase hemoglobin concentrations higher than administration of Fe alone [20].

Iron intake in accordance with the nutritional adequacy rate (RDA) can certainly affect a person's hemoglobin concentration and the body still has iron deposits in the liver which can be used at any time when intake of iron from food is lacking [21]. Ferritin deposits in the form of ferritin and ferritin stabilization are influenced by vitamin C. The hydroxylation process of vitamin C in iron can facilitate the absorption of iron and distributed throughout the body [19].

Non-heme iron sources derived from plants (vegetable protein) cannot influence the concentration of hemoglobin because the absorption rate of non-heme iron is lower than that of heme iron derived from animals [22]. In addition, there are several substances that can inhibit the absorption of iron in the body from food that is phytate (found in soybeans, milk, chocolate and nuts), polyphenols and tannins (found in tea, coffee, spinach, beans), calcium and phosphate (found in milk and cheese) [23].

CONCLUSION

The results showed that in the intervention group with the administration of Fe + Vitamin C there were significant differences in the intake of Fe and Vitamin C ($p <0.005$), but in the protein intake there was no significant difference ($p> 0.005$). In the control group with Fe administration, there were significant differences in protein and Fe intake ($p <0.005$), but in Vitamin C intake there was no significant difference ($p> 0.005$).

REFERENCES

[1] Yusuf, S. 2011. *Psikologi Perkembangan Anak dan Remaja*. Bandung: PT. Remaja Rosdakarya.

[2] Fikawati, S, Syafiq, A, Veratamala, A. 2017. *Gizi Anak dan Remaja.* Jakarta : Raja Grafindo Persada.

[3] Marni, S. 2014. Gizi dalam Kesehatan Reproduksi.Yogyakarta : Pustaka pelajar.

[5] WHO. 2011. *Prevention of Iron Deficiency Anemia in Adolescent : Role of Weekly Iron and Folic Supplementation.* New Delhi : South East Asia Regional Office.

[6] Dillon, D. H. 2005. *Nutritional Assesment*.Universitas Indonesia. Jakarta

[7] Gleason G, NS Scrimshaw. 2007. *An overview of the functional significance of iron deficiency*. Didalam Nutritional Anemia, Edited by Klaus Kraemer & Michael B. Zimmermann.Switzerland : Sight and Life Press.

[8] Kemenkes RI. 2013. Riset Kesehatan Dasar; RISKESDAS. Jakarta: Balitbang Kemenkes RI.

[9] Jacobs, L.C. Ary, D.& Razavieh, A. 2005. Introduction to Research in Education.3rd. New York: Holt, Rinerhart and Winston.

[10] Pradanti, C M, Wulandari M, Hapsari S K. 2015. *Hubungan Asupan Zat Besi (Fe) dan Vitamin C dengan Kadar Hemoglobin Pada Siswi Kelas VIII SMP Negeri 3 Brebes*.Jurnal Gizi Universitas Muhammadiyah Semarang. April 2015, Volume 4, Nomor 1.

[11] Zulaekah, S .2007. *Efek Suplementasi Besi, Vitamin C dan Pendidikan Gizi Terhadap Perubahan Kadar Hemoglobin Anak Sekolah Dasar Yang Anemia Di Kecamatan Kartasura Kabupaten Sukoharjo*. Semarang : Tesis Program Pasca Sarjana Universitas Diponogoro.

[12] Paryanti I, Widajanti L, & Nugraheni SA. 2017. Perbedaan Kecukupan Besi, *Enhancer Factor* (Protein, Vitamin C) dan Kadar Hemoglobin Pada Remaja Sebelum dan Sesudah Suplementasi Besi Selama 1 Bulan (Studi pada Siswi kelas XI SMA MTA Kota Surakarta Tahun 2017). Jurnal Kesehatan Masyarakat : Vol. 5 No.3

[13] Akib, A. 2016. *Food Consumption Habits of Female Adolescents Related to Anemia: A Positive Devicience Approach*. Prodi Ilmu Gizi, Fakultas Kesehatan Masyarakat Universitas Airlangga

[14] Santrock, Jhon W. 2006. *Life-Span Development*. Jakarta : Erlangga

[15] Fikawati, S, Syafiq, A, Veratamala, A. 2017. *Gizi Anak dan Remaja.* Jakarta : Raja Grafindo Persada.

[16] Gilbert. C. 2013. Xeropthalmia The eye signs of vitamin A deficiency. *Community Eye Health Journal* Vol. 26. Issue, 84

[17] Brown, T. E., H. E. LeMay, & E. Bruce. 2011. Chemistry: *The Central Science. New York: Pearson Prentice Hall*.

[18] Almatsier, S. 2003. Prinsip Dasar Ilmu Gizi.Jakarta : PT. Gramedia Pustaka Utama

[19] Gropper, Sareen S.; Smith, Jack L.; dan Groff JL. 2009. *Advanced Nutrition and Human Metabolism*. In: 5 ed. Wadsworth: Cengange Learning.

[20] Intiyati, A. 2013.Pengaruh Suplementasi Fe + Vitamin C Terhadap Peningkatan Kadar HB Dan Produktifitas Tenaga Kerja Wanita Di PT Mayangsari Jember. *The Indonesia Journal Of Health Science* Vol. 2 No. 2. 2013

[21] Gibson, R. S. 2005. *Principles of Nutritional Assessment*. *Second Edition*. Oxford University Press Inc, New York.

[22] Bulkis, A. St. dan Nurhaedar, J. AS. 2013. Hubungan Pola Konsumsi Dengan Status Hemoglobin Pada Ibu Hamil Di Kabupaten Gowa Tahun 2013. Universitas Hasanuddin Makassar.

[23] Gibney, Michael J.; Margaretts, Barrie M,; Kerney JM dan LA. 2008. *Gizi Kesehatan Masyarakat*. 1 ed. Jakarta.

INTAKES OF CALCIUM, IRON, FIBER, AND NUTRITIONAL STATUS OF ADOLESCENTS

Resti Kusumarini Samben[1], Adella Kumala Dewi[2], I Gede Mustika[3]
[1,2,3]Department of Nutrition Universitas Dhyana Pura
restisamben@undhirabali.ac.id

ABSTRACT

Adolescence (10-18 years old) is the age that is very vulnerable of nutritional status. This is because in adolescence, growth and development during the ages need more requirement on nutrition. This study is to analyze the intakes of calcium, iron, fiber, and the nutritional status of adolescence foster children of LKSA Widhya Asih Badung. This research was conducted using crossectional design. Sampling is done by nonprobability sampling through saturation sampling totaling 32 people. The data of nutritional status was analyzed based on body weight and height by calculating Body Mass Index (BMI) according to age. In the other hand, the data of calcium, iron and fiber intakes were obtained by interview using questionnaire and FFQ-SQ form (Food Frequency Questionnaire-Semi Quantitative). The result of this study shows that most of the respondent have less calcium and iron intakes, while the fiber intake is sufficient with their normal nutritional status. There is a relationship between calcium and fiber intake with the nutritional status of adolescence in LKSA Widhya Asih Badung.

Keywords: *Nutritional intake, nutritional status, adolescence*

INTRODUCTION

Adolescent is a key phase of human development. It is a transition period from childhood to adulthood. Such period occurs between twelve to nineteen years of age. All adolescent must enjoy good health and well being. Adolescent girls are the vital bridge between the present and future generation. Therefore adolescent nutrition and health care is a major concern all over world. In South Asia, a high prevalence of under-nutrition among adolescents has been observed. Under-nutrition and overweight is a global problem, especially overweight and obesity spreading even to developing world, where it is an increasing threat to health. One third of all deaths globally already stem from ailments linked to excess weight and low consumption of food [1].

Globally, there are 1.8 billion children and adolescents ages 5–19 years; nearly 90 percent live in low- and middle-income countries (LMICs). The prevalence and consequences of malnutrition and inadequate intake of nutrients leading to increased risk of morbidity and mortality are well studied for children in their first 1,000 days. Little information about the prevalence and consequences of malnutrition is available for children and adolescents ages 5–19 years, although they constitute 27 percent of the population in LMICs [2].

Based on the data of Baseline Health Research 2013, the prevalence of wasting in adolescents at the age of 16–18 nationally is 9,4% (1,9% severe thin and 7,5% wasting) and the prevalence of overweight is 7,3% (overweight 5,7% and obesity 1,6%). Bali is one of the provinces with the obesity prevalence is above the national prevalence. Overweight prevalence is 11,2% (overweight 8,6% and obesity 2,6%) and the prevalence of wasting is 5,6% (severe thin 0,3% and wasting 5,3%) [3].

Based on Baseline Health Research 2013, Denpasar city is the region with the lowest prevalence of normal nutritional status in adolescent at the age of 16–18 accounted for 75,6% [4]. The number of adolescents in the city of Denpasar is 13.600. The number of adolescents who take part in nutrition screening activity is 13.269 people. The result of nutrition screening of adolescent in the city of Denpasar in 2018, showing

ISBN: 978-602-53420-4-2

that adolescent with overweight nutritional status numbered 599 people, obesity 87 people, severe thin 6 people, and wasting 343 people [5].

LKSA Widhya Asih Badung was founded in 1981. The number of adolescent in LKSA Widhya Asih Badung 32 people, consisting of Men = 11 people and women = 21 people. Based on preliminary test, all of orphanage children of LKSA Widhya Asih Badung categorized as adolescent at the age of 15-18 years old, and shows that the number of overweight adolescent is 21,8%, wasting: 6,25% and obesity 3,2%. Economic factor of the orphanage is the reason why the children experience malnutrition as the orphanage depends on funding from donors which is impact to food supply for the children. Comparison of the number of Children greater than the number of caregivers and childcare about nutrition and health for each child is still lacking.

METHODS

Type of this research is observational research with cross sectional approach. Subject of the research was adolescents age 15–18. The research was done in LKSA Widhya Asih Badung. The sampling in this research was used *non probability sampling techniques* with saturation sampling of all the population totaling 32 people. The data of calcium, iron and fiber intake was obtained by recall interview of food intake 3 x 24 hours. The characteristic data was obtained from questionnaire, the data of nutritional status was obtained by body weight measurement using weight scales and height using mikrotoa. Kolmogorof Smirnov was used for normality test data in this method, while the data analysis was used *kendall tau b* correlation test to identified how big the relationship between two variables.

FINDINGS AND DISCUSSIONS

Age and gender can affect the education level, eating habits, amount of food intake, so that it can affect the nutritional status. According to Amiruddin, 2013, if the income rises, the amount and type of food will tend to improve. The income level also determines what types of food can be purchased. The higher the income the greater the percentage from the income used to buy fruit, vegetable, and various types of food. The effect of income improvement also affects the family access to adequate and quality health services.

Table 1 shows that 53,1% of female respondent at the age of 15 is 65,5%. Mostly the education level of parents of the respondent is Senior High School. 46,9% of respondent with father's profession as a farmer/planters and mother as housewife with the income less than Rp. 1,5 million / month.

Majority of the parent of respondent work as farmer and only a small portion are entrepreneurs, so this is also affect to the knowledge about nutrition. As a result, the society do not spend their wealth according to nutritional needs. Lack of nutritional knowledge cause low food expenditure budget and food quality and diversity. Many families buy more goods because of the influence of habits, advertisement, and the environment [7].

Tabel 1. Adolescent Characteristic of LKSA Widhya Asih Badung

Variable	n	Percentage
Age (Year)		
15	17	53,1%
16	1	3,1%
17	4	12,5%
18	10	31,3%
Total	**32**	**100%**
Gender		
Male	11	34,4%
Female	21	65,5%
Total	**32**	**100%**

Father's Education Level		
Elementary School	2	6,3%
Junior High School	6	18,7%
Senior High School	20	62,5%
Diploma/Bachelor	4	12,5%
Total	**32**	**100%**
Mother's Education Level		
Elementary School	7	21,9%
Junior High School	7	21,9%
Senior High School	16	50%
Diploma/Bachelor	2	6,3%
Total	**32**	**100%**

Variable	n	Percentage
Father's Profession		
Entrepreneur	9	28,1%
Labor	2	6,3%
Farmer/Planters	15	46,9%
Private Worker	1	3,1%
Merchant	2	6,3%
Unemployment	3	9,4%
Total	**32**	**100%**
Mother's Profession		
Entrepreneur	8	25%
Merchant	2	6,3%
Housewife	15	46,9%
Labor	0	0%
Farmer/Planters	7	21,9%
Total	**32**	**100%**
Parent's Income (Rp)		
< Rp. 1,5 million	21	46,9%
1,5 million – 2 million	8	31,3%
2 million – 3 million	2	18,7%
>3 million	1	3,1%
Total	**32**	**100%**

Primary Data, 2019

Nutritional status assessment was done based on the result of body weight and height measurement adjusted for Body Mass Index (BMI) based on age, then obtained that distribution of nutritional status of orphan children with wasting category 2 persons (6,3%), normal category 22 persons (68,7%), overweight category 7 persons (21,9%), and obesity category 1 person (3,1%), as shown in Table 2. Nutritional status of a person is determined by nutritional consumption and body's ability to absorb these substances. Normal nutritional status shows that food quality and quantity has fulfilled the body's needs. A person who has less nutritional status or underweight has a risk of infectious diseases, while someone with overweight condition has a risk of degenerative diseases [8].

Tabel 2. Adolescent Nutritional Status in LKSA Widhya Asih Badung

No	Nutritional Status	N	%
1	Wasting	2	6,3%
2	Normal	22	68,7%
3	Overweight	7	21,9%
4	Obesity	1	3,1%
Total		**32**	**100%**

Primary Data, 2019

Calcium intake of all adolescent included in the category of deficient, for the iron intake 78,1% of adolescent also in deficient category, while the fiber intake of adolescent included in the category of sufficient (Table 3). Calcium intake of the foster children included in the category of deficient due to lack of consumption of food source that contain of calcium such as milk, cheese, yolk, green vegetable, nuts, and prawn. Calcium deficiency in infancy can cause growth disruption especially the growth of abnormal bones, bent and brittle bone. If this continues and there is no attempt to improve the food sources that contain calcium, it will have an impact on osteoporosis dan osteomalation [9].

Tabel 3. Calcium, Iron, and Fiber Intake of Adolescents in LKSA Widhya Asih Badung

Micro Nutrient	**Category**	N	%
Calcium	Deficient	32	100
	Sufficient	0	0
	Total	**32**	**100**
Iron	Deficient	25	78,1
	Sufficient	7	21,9
	Total	**32**	**100**
Fiber	Deficient	0	0
	Sufficient	32	100
Total		**32**	**100%**

Primary Data, 2019

Deficient of iron intake is cause by lack of consuming the source of animal proteins, nuts, green vegetable, and some fruits. Generally, people who have adequate protein intake also have sufficient iron intake. Low and poor bioavailability of iron intake results in iron anemia especially for female adolescent [10]. Fiber intake of all adolescents is sufficient. This is because almost every day they consuming various types of vegetables such as cabbage, spinach, and swamp cabbage (Table 4).

Table 4. Asossociate of Ca, Fe, and Fiber Intake With The Nutritional Status of Adolescent in LKSA Widhya Asih Badung Based On IMT/U

Nutritional Intake	**Nutritional Status**												**p-value**	**Correlation coefficient**
	Severe thin		**Wasting**		**Normal**		**Over-weight**		**Obesity**		**Total**			
	n	**%**	**N**	**%**	**N**	**%**	**n**	**%**	**n**	**%**	**n**	**%**		
Ca														
Deficient	0	0	2	6,3	22	68,8	7	21,9	1	3,1	32	100	0,040	0,357
Sufficient	0	0	0	0	0	0	0	0	0	0	0	100		
Fe														
Deficient	0	0	2	8	17	68	6	24	0	0	25	100	0,502	0,116
Sufficient	0	0	0	0	5	71,4	1	14,3	1	14,3	7	100		
Fiber														
Deficient	0	0	0	0	0	0	0	0	0	0	0	100	0,004	0,497
Sufficient	0	0	2	6,3	22	68,8	7	21,9	1	3,1	32	100		

There is an association between the calcium intake with nutritional status with the value $p = 0{,}040 < 0{,}05$ and with correlation coefficient 0,357, which mean that the relationship between calcium intake and nutritional status of foster children in LKSA Widhya Asih Badung is weak. Parama Research, 2018 shows that 78,7% of children have normal nutritional status and 60,7% of them have insufficient calcium intake [11]. In line with Davies's research, there is a negative relationship between calcium intake and body weight in all age groups. The calcium which is the micro nutrient plays an important role in regulating cell functions such as cell transmission, muscle contraction, and maintaining cell membrane permeability. Furthermore, calcium also regulates the work

ISBN: 978-602-53420-4-2

of hormones and growth factor and plays a role in the formation of bones and teeth. Therefore, lack of calcium intake can cause interference from the cellular level. If there is a lack of calcium intake in its infancy, it can cause growth disorder [12]

There is no relationship of iron intake and nutritional status with the value p = 0,502> 0,05 with correlation coefficient 0,116. Iron (Fe) is not directly related to nutritional status. 65,3% of adolescent respondent have normal nutritional status and 89,8% with less Iron (Fe) intake. The effect of iron deficiency will be seen over a long period of time on nutritional status anthropometrically. It is different with energy and protein intake [13].

There is a correlation between fiber intake with the nutritional status with the value p = 0,004< 0,05 with the correlation coefficient 0,497, it means that there is strong relationship between fiber intake with the nutritional status of orphan children of LKSA Widhya Asih Badung. In line with Dewi's research (2009), shows that there is a significant relationship between fiber consumption with nutritional status with *p-value* 0,000 (p < 0,05) [14]. In other research shows there is a relationship between fiber intake with nutritional status of adolescent with the value p = 0,01 and r = 0,340 [15]. Fiber is included in complex carbohydrates called non-starch polysaccharides. Vegetables intake which is included in complex carbohydrates which is often consumed by foster children can produce adequate fiber intake for the body [16].

CONCLUSION

Calcium and iron intake in micro nutrient of orphanage of LKSA Widhya Asih Badung categorized as insufficient namely < 70 % and sufficient fiber intake > 70%. There is a relationship between calcium and fiber intake with the nutritional status of orphanage of LKSA Widhya Asih Badung. Suggestion: high protein and iron menu modification is needed on menu program of LKSA Widhya Asih, also laboratory test for biochemical value of ferritin and calcium levels for the prevention of anemia and other growth disorders.

REFERENCES

[1] Vidyavihar, S. 2015. Prevalence of Malnutrition among Adolescent: The Socio Economic Issues and Challenges in Mumbai Metropolitan Region 15(8):14
[2] World Bank. 2015. Child and Adolescent Health and Development. Cetakan 3. World Bank.doi:10.1596/978-1-4648-0426-7. License: Creative Commons Attribution CC BY 3.0 IGO. Washington, DC
[3] Riset Kesehatan Dasar Indonesia., 2013. Badan Penelitian dan Pengembangan Kesehatan Kementrian RI. Jakarta
[4] Riset Kesehatan daerah., 2013. Riset Kesehatan Dasar Dalam Angka. Bali:Riskesdas
[5] Riset Kesehatan Daerah.2013.Profil Kesehatan. Bali : Dinas Kesehatan
[6] Permatasari, E. 2018. Hubungan Antara Kecukupan Energi dan Protein dengan Status Gizi pada Anak di Panti Asuhan Keluarga Yatim Muhammadiyah Surakarta. Skripsi. Universitas Muhammadiyah. Surakarta
[7] Amiruddin, M. 2014. Hubungan antara Pendapatan Orang Tua dengan Status Gizi pada Siswa SDN II Tenggong Rejotangan Tulungagung: Jurnal Pendidikan Olahraga dan Kesehatan 02 (3):564 – 568
[8] Rahmawati, T. 2017. Hubungan Asupan Zat Gizi dengan Status Gizi Mahasiswa Gizi Semester 3 Stikes PKU Muhammadiyah.Jurnal Profesi. Vol 14 No (2).
[9] Marmi. 2013. Gizi Dalam Kesehatan Reproduksi. Yogyakarta : Pustaka Pelajar
[10] WHO. 2011. World Health Statistics 2011. France. https://www.who.int/gho/publications/world_helath_statistics/EN_WHS2011_Full.pdf. Diakses pada tanggal 20 Februari 2019.
[11] Parama, C.2018. Hubungan Antara Kecukupan Asupan Kalsium dan ZAT BESI Terhadap Status Gizi Pada Anak di Sekolah Negeri Pabelan 01Kartasura.Skripsi. Program Studi Ilmu Gizi Universitas Muhammadiyah. Surakarta

[12] Davies KM, Heaney RP, Recker RR, et al. 2000. Calcium Intake and Body Weight.Jclin Endocrinal Metab. Vol 85:4635-8
[13] Devi, N. 2012."Gizi Anak Sekolah".Penerbit Buku Kompas. Jakarta.
[14] Dewi, E. 2009.Hubungan Antara Konsumsi Lemak dan Serat dengan Status Gizi (Tinjauan Masalah Kecenderungan Obesitas di SD Hj. Isriati Semarang.Semarang : Skripsi Universitas Muhammadiyah Semarang.
[15] Widyastuti, Nurmasari., Fillah Fithra Dieny, Deny Yudi Fitranti. 2016. Asupan Lemak Jenuh dan Serat Pada Remaja Obesitas Kaitannya Dengan Sindrom Metabolik.Semarang : Fakultas Kedokteran Universitas Diponegoro.
[16] Arisman MB. 2010. Buku Ajar Ilmu Gizi Dalam Daur Kehidupan Ed 2. Buku Kedokteran EGC. Jakarta.

SODIUM INTAKE IN HYPERTANSIVE PATIENTS IN RSUD dr. M. YUNUS BENGKULU

Ravi Masitah
Universitas Dhyana Pura
ravimasitah@undhirabali.ac.id

ABSTRACT

Hypertension is increased year by year and it is a major risk factor for cardiovascular diseases. Controlling of blood pressure in hypertensive patients can be done by limiting the consumption of sodium adjusted by the severity of salt retention or hypertension. The aim of this study was to determine the amount of sodium intake in hypertensive patients. This study was quantitative research. The technic used purposive sampling technique with 33 patients. Retrieval of sodium intake data used recall 3 x 24 hours. Data analysis was done descriptively. The results showed 50% of subjects with low salt diet therapy I and II and 77,8% of subjects on low salt diet therapy III had consumed sodium based on the recommended limits. The results also showed that there were still 50% of subjects on low salt diet therapy I and II and 22,2% of subjects on low salt diet therapy III consumed sodium more than the recommended limit. The Changing of healthy eating by limiting sodium intake can help to control blood pressure in hypertensive patients.

Keywords*: Sodium intake, blood pressure, hypertension*

INTRODUCTION

Hypertension is the main cause of cardiovascular diseases such as heart disease and stroke [1]. Hypertension is a cause of morbidity and death worldwide and is increasing every year [2]. Hypertension is called a silent killer because it often does not show the indications, individuals with hypertension do not understand they are suffering this disease and do not consider hypertension as a serious problem [3]. The individual is called hypertension if the systolic/diastolic blood pressure is ≥ 140 / ≥ 90 mmHg [4].

Data from the World Health Organization (WHO) in 2011 showed that 1 billion people in the world suffer the hypertension, 2/3 of them are in developing countries with low to moderate incomes. The prevalence of hypertension will increase and it is predicted that in 2025 there will be 1,15 billion, which is about 29% of the total world population suffer the hypertension [5]. Based on Riset Kesehatan Dasar (Riskesdas) data, the prevalence of population aged ≥ 18 years who suffering the hypertension in Indonesia in 2007 was 31,7%, in 2013 was 25,8% and was increased to 34,1% in 2018 [6].

The prevalence of hypertension in the population aged ≥ 18 years in Bengkulu Province in 2013 was 21,6% [7]. Based on the medical record data of RSUD dr. M. Yunus Bengkulu there was an increase in the number of inpatient hypertension patients from 2009 to 2011. Inpatients hypertension in 2009 were 187 people consisting of 93 male patients and 94 female patients, in 2010 increased to 198 people consisting of 86 male patients and 112 female patients, and in 2011 also increased with 321 patients consisting of 142 male patients and 179 female patients [8].

The risk factors of hypertension are overweight, unhealthy eating patterns such as high consumption of sodium, physical activity, and alcohol consumption. The restriction of sodium consumption is known as an effective approach to control blood pressure in hypertensive patients [9]. Sodium causes the body to retain water with the level that exceeds the body's normal limit, so it can increase blood volume and cause blood pressure is rising. Animal food ingredients contain more sodium than vegetable. Sodium is also easily found in everyday foods such as soy sauce, seafood, fast food, and snacks [10].

Hypertension patients who receive treatment in hospital are given low-salt dietary therapy, namely limiting the consumption of sodium adjusted to the severity of salt retention or hypertension. Hypertension patients should adhere to do low-salt dietary therapy in order to prevent further complications [11]. The fact is hypertension patients often do not consume food provided by the hospital during treatment due because of saturation, are not accustomed to do a low salt diet and are accustomed to consuming salty and savory foods with high sodium levels [12]. The aim of this study was to determine the amount of sodium intake adjusted by whether or not the heavy of salt retention or individual hypertension.

METHODS

The type of this study is a *qualitative study*. The study was conducted at the Kenanga and Lotus In patient Hospital dr. M. Yunus Bengkulu in January to February 2013. The selection of research subjects used a *purposive sampling* which is 33 patients. The primary data consist of sodium identity and intake, while the secondary data is the blood pressure of research subjects. Sodium intake is obtained by doing recall 3 x 24 hour. Research subjects who do Low Salt diet I with blood pressure ≥ 180 / ≥ 110 mmHg their maximum sodium intake were ≤ 400 mg Na / day, Low Salt diet II with blood pressure 160-179 / 100-109 mmHg their maximum sodium intake were ≤ 800 mg Na / day and Low Salt diet III with blood pressure 140-159 / 90-99 mmHg their maximum sodium intake were ≤ 1200 mg Na / day. Blood pressure data was obtained through data on medical records which was recorded in the medical register. Data analysis was done descriptively to determine the amount of sodium intake based on salt retention or individual hypertension.

FINDINGS AND DISCUSSIONS

General characteristics of research subjects can be seen in Table 1.

Table 1. General Characteristics of Research Subjects

Characteristics	n	%
Age		
40-49	12	36,4
50-59	21	63,6
Total	33	100
Gender		
Man	14	42,4
Women	19	57,6
Total	33	100
Education		
Primary school	10	30,3
Junior high school	13	39,4
Senior high school	9	27,3
College	1	3
Total	33	100

Based on Table 1, most of the research subjects were 50-59 years old (63,6%), female (57,6%) and junior high school level (39,4%).

Table 2. Blood Pressure Research Subjects

Blood pressure	n	%
≥ 180 / ≥ 110 mmHg	6	18,2
160-179/100-109 mmHg	18	54,5
140-159/90-99 mmHg	9	27,3
Total	33	100

Table 2 shows that most of research subjects had blood pressure of 160-179 / 100-109 mmHg (54,5%).

Table 3. Low Salt Diet Therapy Research Subjects

The kind of diet	n	%
Low Salt diet I (200-400 mg Na/day)	6	18,2
Low Salt diet II (600-800 mg Na/day)	18	54,5
Low Salt diet III (1000-1200 mg Na/day)	9	27,3
Total	33	100

Based on Table 3, most of research subjects received low-salt diet therapy II (54.5%) with a limitation of sodium intake from 600 to 800 mg Na / day.

Table 4. Sodium Intake of Research Subjects

Sodium Intake	n	%
Research subject withLow Salt diet I		
> 200-400 mg Na/day	3	50
< 200-400 mg Na/day	3	50
Total	6	100
Research subject with Low Salt diet II		
> 600-800 mg Na/day	9	50
< 600-800 mg Na/day	9	50
Total	18	100
Research subject with Low Salt diet III		
> 1000-1200 mg Na/day	2	22,2
< 1000-1200 mg Na/day	7	77,8
Total	9	100

Table 4 shows that research subjects with low salt I and low salt II diet therapy that have sodium intake > 200-400 mg Na / day and > 600-800 mg Na / day were 50% of each. Research subjects with low salt III diet therapy that has sodium intake > 1000-1200 mg Na / day were 22,2% of each.

The results showed that 50% of subjects with low salt diet therapy I and II and 77,8% of subjects on low salt diet therapy III had consumed sodium in accordance with the recommended limits. The results also showed that there were still 50% of subjects on low salt diet therapy I and II and 22,2% of subjects on low salt diet therapy III consumed sodium more than the recommended limit.

The relationship of sodium consumption with the hypertension occurs through the increasing of blood volume, cardiac output, and blood pressure. The excessive sodium consumption caused the concentration of sodium in the extracellular fluid increased to normalize, the intracellular fluid was pulled out, so that the extracellular fluid volume increased. The increased volume of extracellular fluid caused an increase in blood volume. In addition, high consumption of sodium can reduce the diameter of the arteries, so the heart must pump harder to push the increased blood volume through narrow spaces and have an impact on hypertension [13]. The higher sodium intake, the systolic and diastolic blood pressure will increase [14].

Patients who consume sodium exceeds the recommended limit giving the reason that hospital food tastes bland, appetite decreases and the menus were served repeatedly so that they feel bored. They prefer to eat food brought by their families or bough food from outside. This is because of the habit of research subjects consuming foods that have high sodium levels such as salted fish, instant noodles, bread, biscuits, snacks and always use salt or seasoning every day in every dish with the reason if no salt it will taste bland and not tasteful. Favorite, taste or enjoyment of food can affects the selection of food ingredients. Salty and fast foods can increase person's appetite because of its savory taste, so if someone likes and is accustomed to consuming sodium foods such as salted fish, it will tend to consume them continuously [15].

Based on the general characteristics data of the research subjects, most of them were aged 50-59 years (63,6%), female (57,6%) and junior high school level (39,4%). High hypertension is in line with increasing age caused by structural changes in large blood vessels, so that blood vessels become narrower and blood vessel walls become stiff [16]. Womenentering premenopausal period are more likely to experience an increase in blood pressure because of loss of the hormone estrogen which protects blood vessels from damage [17]. The high risk of developing hypertension in patients with low education, is caused of lack of healthy knowledge and difficult or slow to receive information provided by officers. The higher a person's education, the more information is obtained so that patients know more about the disease and how to control blood pressure and healthy lifestyles [18].

The prevalence of hypertension continues to increase and the level of control in people with hypertension is still low. There has also been an increase in complications related to blood pressure, especially strokes, heart attacks and kidney failure. Dietary modifications such as reducing sodium intake, weight loss in overweight and obesity, increasing calcium intake from vegetables and fruits and grain intake have been proven as effective strategies for controlling blood pressure [19].

CONCLUSION

The results showed that 50% of subjects with low salt diet therapy I and II and 77,8% of subjects on low salt diet therapy III had consumed sodium in accordance with the recommended limits. The results also showed that there were still 50% of subjects on low salt diet therapy I and II and 22,2% of subjects on low salt diet therapy III consumed sodium more than the recommended limit. The changing of healthy eating by limiting sodium intake can help to control blood pressure in hypertensive patients.

REFERENCES

[1] Steinberg, D., Kay, M., Burroughs, J., Svetkey, LP., Bennett, GG. 2019. The Effect of a Digital Behavioral Weight Loss Intervention on Adherence to the Dietary Approaches to Stop Hypertension (DASH) Dietary Pattern in Medically Vulnerable Primary Care Patients: Results from a Randomized Controlled Trial. *Journal Of The Academy Of Nutrition And Dietetics*, vol. 119, no. 4, pp. 574-584.

[2] Laatikainen, T., Nissinen, A., Kastarinen, M., Jula, A., Tuomilehto, J. 2016. Blood Pressure, Sodium Intake, and Hypertension Control. *Global Heart*, vol. 11, no. 2, pp. 191-199.

[3] Kim, H & Andrade, F. 2016. Diagnostic Status of Hypertension on the Adherence to the Dietary Approaches to Stop Hypertension (DASH) Diet. *Preventive Medicine Reports*, vol. 4, pp. 525-531.

[4] Yoo, MG., Park, KJ., Kim, HJ., Jang, HB, Lee, HJ., Park, SI. 2019. Association between Alcohol Intake and Incident Hypertension in the Korean Population. *Alcohol*, vol. 77, pp. 19-25.

[5] Febrianti, T & Mustakim. 2019. Analisis Hubungan Faktor Usia, Aktivitas Fisik dan Asupan Makan dengan Kejadian Hipertensi di Puskesmas Wilayah Kerja Tanggerang Selatan. *Collaborative Medical Journal,* vol. 2, no. 2, pp. 57-67.

[6] Kemenkes RI. 2018. *Hasil Utama Riskesdas 2018*. Jakarta : Balai Penelitian dan Pengembangan Kesehatan.

[7] Kemenkes RI. 2013. *Riskesdas dalam Angkas Provinsi Bengkulu 2013*. Jakarta : Balai Penelitian dan Pengembangan Kesehatan.

[8] RSUD dr. M. Yunus Bengkulu. 2011. *Besar Pasien Hipertensi Rawat Inap Tahun 2011*. Bengkulu : RSUD dr. M. Yunus Bengkulu.
[9] Wicaksana, AL & Wang, ST. 2018. Psychometric Testing of the Indonesian Version of Dietary Sodium Restriction Questionnaire Among Patients with Hypertension. *Asian Nursing Research*, vol. 12, pp. 279-285.
[10] Abdurrachim, R., Hariyawati, I., Suryani, N. Asupan Natrium, Frekuensi Dan Durasi Aktivitas Fisik Berdampak Terhadap Tekanan Darah Lansia di Panti Sosial Kota Banjarbaru. *Jurnal Riset Pangan dan Gizi*, vol. 1, no 1, pp. 1-7.
[11] Kurniawati & Widiatie, W. 2016. Pengaruh Pendidikan Kesehatan terhadap Kepatuhan Diet Pada Penderita Hipertensi. *The Indonesian Journal of Health Science*, vol. 7, no. 1, pp. 1-7.
[12] Palimbong, S., Kurniasari, MD., Kiha, RR. 2018. Keefektifan Diet Rendah Garam I pada Makanan Biasa dan Lunak terhadap Lama Kesembuhan Pasien Hipertensi. *Jurnal Keperawatan Muhammadiyah,* vol. 3, no. 1, pp. 74-89.
[13] Ponto, LW., Kandou, GD., Mayulu, N. 2016. Hubungan antara Obesitas, Konsumsi Natrium, dan Stres Dengan Kejadian Hipertensi pada Orang Dewasa di Puskesmas Tompaso Kabupaten Minahasa. *Paradigma*, vol. 4, no. 2, pp. 115-129.
[14] Fitriani., Marlina, Y., Roziana., Yulianda, H. 2018. Gambaran Asupan Natrium, Lemak dan Serat pada Penderita Hipertensi di Kelurahan Tanjung Gading Kecamatan Pasir Penyu Kabupaten Indragiri Hulu. *Jurnal Proteksi Kesehatan*, vol. 7, no. 1, pp. 1-8.
[15] Libri, O., Abdurrachim, R., Mariana, D. Hubungan Tingkat Pengetahuan dan Konsumsi Natrium terhadap Tekanan Darah Penderita Hipertensi di Wilayah Kerja Puskesmas Cempaka Tahun 2015. *Jurnal Publikasi Kesehatan Masyarakat Indonesia*, vol. 6, no. 1, pp. 20-25.
[16] Anjani, NMD., Sulendri, NKS., Laraeni, Y., Jaya, IKS. 2017. Pengaruh Pemberian Jus Mentimun Air Kelapa Muda terhadap Penurunan Tekanan Darah Lansia Hipertensi di Panti Sosial Tresna Werdha "Puspakarma" Mataram. *Jurnal Gizi Prima*, vol. 2, no. 2, pp. 127-136.
[17] Adriaansz, PN. 2016. Hubungan Konsumsi Makanan Dengan Kejadian Hipertensi Pada Lansia di Puskesmas Ranomuut Kota Manado. *ejournal Keperawatan*, vol. 4, no. 1, pp. 1-6.
[18] Ramadi, RV. 2017. Hubungan *Psychological Well Being* Dengan Derajat Hipertensi Pada Pasien Hipertensi di Puskesmas Bahu Manado. *e-Journal Keperawatan*, vol. 5, no. 1, pp. 1-9.
[19] Hardinsyah & Supariasa IDN. 2016. *Teori dan Aplikasi.* Jakarta: EGC.

ISBN: 978-602-53420-4-2

THE EFFECTS OF CHITOSAN IN MACKEREL TUNA (Euthynnus affinis) BRINE SHREDDED AGAINTS HALOPHILIC BACTERIA

Purwaningtyas Kusumaningsih[1], Ni Made Ria Sanistya Kusuma[2], Luh Eka Rahayu Ambarawati[3] and Chrissanti Banimema[4]
[1,2,3,4]Department of Nutrition Universitas Dhyana Pura
purwak.05@undhirabali.ac.id

ABSTRACT

*Mackerel tuna (*Euthynnus affinis*) brine salting has short shelf life because consist of high protein and water. Shredded fish is food technology to prolong shelf life of mackerel tuna brine. Addition of chitosan in mackerel tuna brine shredded has functioned as antibacterial. Halophilic bacteria, is bacterial resource from salinity environment and can lived in high temperature, likes seafood. The aim of this research is to investigate if chitosan can against the growth of halophilic bacteria. The samples were mackerel tuna brine salting, mackerel tuna brine shredded non-chitosan and mackerel tuna brine shredded adding with 50 mg chitosan, were enriched in Triptyc Soy Broth (TSB) media and streaked on Thiosulfate Citrate Bile Salts Sucrose (TCBS) agar plates, incubate at 37°C for 24 hours. Mackerel tuna brine shredded's chitosan agar plate was negative. Total two TCBS strains were isolated from TCBS of mackerel brine salting and mackerel brine shredded non-chitosan agar plates. All strains were indentifying using gram staining and 20E API kit. The result shows, two strains were classified as Proteus vulgaris and Pseudomonas luteola. The conclusion is to process mackerel tuna brine into shredded fish by adding 50 mg chitosan makes result in inhibit the growth of halophilic bacteria.*

***Keywords**: chitosan, halophilic bacterial, mackerel tuna (*Euthynnus affinis*), brine salting, mackerel tuna (*Euthynnus affinis*), brine shredded*

INTRODUCTION

Indonesia surrounded by the ocean makes Indonesia has lots of fish potential as protein resource beside meat. Mackerel tuna or "tongkol" (*Euthynnus affinis*) is usually processed as mackerel tuna brine-salting [1]. This seafood for Balinese people is very popular and becoming daily consumption for family [2]. Because of mackerel tuna brine salting high in protein and water, bacteria can growth easily [3]. Shredded fish is one of food technology to make mackerel tuna has long shelf life. Pan frying method of processing shredded fish, showed can prolong the shelf life until 40 days [5].

The contamination of bacteria could give impact on reducing of nutrition value and the quality of the shredded fish. Seafood with high contamination of bacteria also makes diseases to the consumer. Some of bacteria which classify as halophilic and thermophilic bacteria have characteristic can survive in salinity environment and high temperature, common found in seafood [6]. Bali as one of tourist visit, has to improve the service of culinary tour and ensure the seafood is safety to eat [7].

Chitosan known as antibacterial made from natural product crustacea shell. It can inhibit the growth of gram positive and negative bacteria including fungus [8]. In this research we have added 50 mg chitosan inside the mackerel tuna shredded. The aim on this research by adding chitosan can inhibit the growth of bacterial and will prolong the shelf life of shredded fish, in case chitosan can use as alternative antimicrobial without side effect in seafood.

ISBN: 978-602-53420-4-2

METHODS

The mackerel tuna (*Euthynnus affinis*) brine salting bought from Badung market. The mackerel tuna process to shredded fish by adding 50 mg of chitosan in 100 gr shred mackerel tuna and left for 15 minutes before cooked. The seasoning such as shallot, garlic, kencur, lengkuas, tumeric, cumin, and coriander blended and fried. Palm sugar, bay leaves and lime leaves adding into the fried seasoning until the color became brownish. The shred mackerel tuna was entered into the seasoning fried and added coconut milk powder. Then continued fried the shredded mackerel tuna in 1 liter coconut oil until brownish. Other shredded mackerel tuna cooked without chitosan.

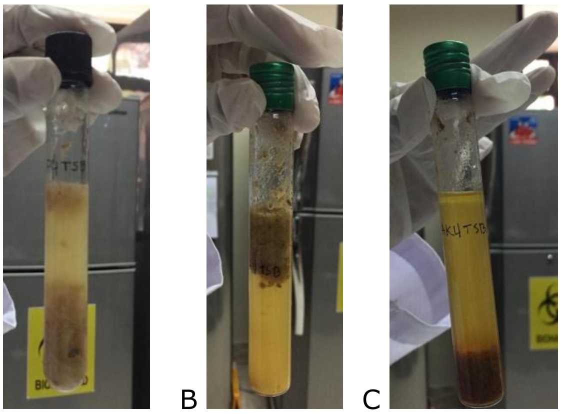
Three samples consist of mackerel tuna brine salting, mackerel tuna shredded chitosan and mackerel tuna shredded non-chitosan, respectively was taken 10 gr and enriched in 10 ml Tryptic Soy Broth (TSB) media, incubated in 37°C for 24 hours. All samples were streaked on selective media Thiosulfate Citrate Bile Salts Sucrose (TCBS), incubated in 37°C for 24 hours. One colony was taken and subculture in TCBS, incubated in 37°C for 24 hours. Taken only one colony bacteria and indentify by gram stain. The gram-negative bacteria will continue identified by API 20E kit.

The methods section describes detailed actions, instruments, techniques of analysis utilized in the study in order to investigate the research question(s), and explains the rationale for the application of specific procedures or techniques used to identify, process, and analyze information applied to understanding the problem. The writing should be direct and precise; it should be written in the past tense.

FINDINGS AND DISCUSSIONS

Bacteria Culture

Samples are mackerel tuna brine salting (P), mackerel tuna shredded brine non-chitosan (A) and mackerel tuna shredded brine chitosan (AK). The samples were weight 10 gram respectively, and enriched into TSB media. Halophilic bacteria, has to be enrich in media capable for anaerobes, aerobes, micro-aerophilic, and fastidious organisms. Tryptic Soy Broth (TSB) has content with NaCl between 0-30percent which tolerances to halophilic bacteria growth [9]. All samples were incubating for 24 hour in 37°C. The next day, each samples cultured on TCBS media by streak method and continued incubate in 37°C for 24 hour. The halophilic bacteria can grow in TCBS media by alkalinity resource in the media [10].

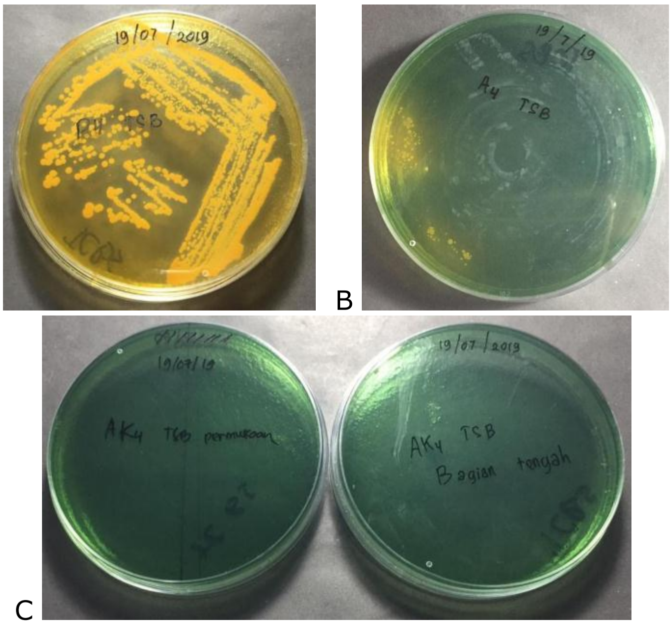


A B C

Figure 1, A: sample mackerel tuna brine salting (P). B: sample mackerel tuna brine shredded non-chitosan (A), C: mackerel tuna brine shredded chitosan (AK), enriched in TSB media.

All the bacteria colonies which had grew on TCBS media taken only one colony and subculture on new TCBS media and incubate. The colonies have been growing identified by gram staining. If the bacteria were gram-negative, it will continue to API E20 kit to classify the species. It is showed on Figure 1.

After incubating for 24 hour, each sample were culture on TCBS media selective for halophilic bacteria and incubated in 37°C for 24 hour. Some bacteria colonies were growing on TCBS media were from mackerel tuna brine-salting and mackerel tuna brine shredded non-chitosan. It wasn't found bacteria grew on TCBS media from mackerel tuna shredded chitosan (Figure 2). The yellow zone formed of bacteria able to metabolize sucrose and reduce the pH. Other halophilic can grow but cannot metabolize sucrose, it makes the color's bacteria's colonies won't be yellow. Proteus strains can grow to form yellow, vibrid-likes colonies [10].

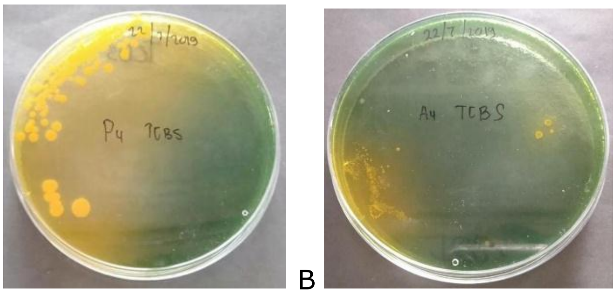


A B C

Figure 2. Culturing samples A: mackerel tuna brine-salting (P). B: mackerel tuna shredded non-chitosan (A). C: mackerel tuna shredded chitosan (AK) on TCBS media.

Bacteria Subculture and Gram Staining

Subculture needed to make sure the purity of the colonies bacteria. One colony was taken and streak on new TCBS media (Figure 3). The colonies were growing on the next day after incubated. First step to identify the morphology from the gram class of bacteria is by gram staining (Figure 4).

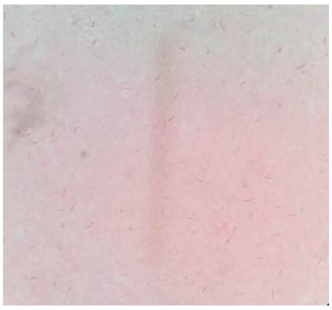


A B

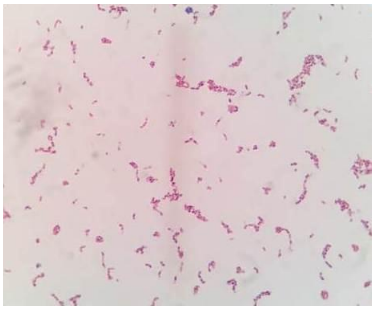
Figure 3. Subculture colonies grew on TCBS media: A. Mackerel tuna brine-salting (P); B. Mackerel tuna shredded non-chitosan (A)

The result based on gram staining from mackerel tuna brine-salting and mackerel tuna brine shredded were found that both bacteria were gram-negative. All the bacteria can classify the species using API 20E kit. One colony from mackerel tuna brine-salting shows %ID 99.2% is *Proteus vulgaris* and mackerel tuna shredded non-chitosan %ID 98.1% is *Pseudomonas luteola*.

Both are halophilic bacteria which can grow in salted environment. These bacteria have produced specific protein that can active in salted condition. It because in the cytoplasm, it has Na+, K+ and Cl+ to reduce osmotic movement, it can avoid the damage of cell walls [9]. In the present of salt, the halophilic bacteria can grow. *Pseudomonas luteola* is micro flora on fish but if the growth is not in control can cause strawberry disease on fish's skin [11]. In people, known can cause pneumonia. The bacteria as mesophilic can found frequently in soil, water or damp environment [12]. The presence of *P. luteola* in mackerel tuna brine shredded it can be growth during cooling process.



A



B

Figure 4. Bacteria gram-negative. Sample A: mackerel tuna brine-salting (P) and B: mackerel tuna shredded brine non-chitosan (A).

Proteus vulgaris is bacteria present in water and soil. In this case show as indicator of fecal pollution in marine water. Water animals such as fish absorbs the bacteria because of marine chain food and transferred to human after consumed animals water contaminated with *P. vulgaris*. In spoiled fish product like sardines, *P. vulgaris* can produce histamine [13]. These two bacteria can produce biogenic amines such as histamine and tyramine [14]. These biogenic amines can cause allergic reactions in humans [15].

CONCLUSION

The conclusion on this research the halophilic bacteria still can grow in mackerel tuna brine-salting and mackerel tuna brine shredded non-chitosan. This contamination can arise due to salted environment during selling in market and the capability of thermophilic bacteria survives in extreme temperature. Addition of 50 mg of chitosan in mackerel tuna brine shredded have been capable to inhibit the growth of halophilic bacteria such as *Proteus vulgaris* and *Pseudomonas luteola* in mackerel tuna (*Euthynnus affinis*) brine shredded.

REFERENCES

[1] Pandit, G. S. 2016. Teknologi Pemindangan Ikan Tongkol. Warmadewa University Press. Jln. Terompong No. 24 Tanjung Bungkak Denpasar-Bali 80235.

[2] Widnyana DGAW, Budhi MKS and Saskara IAN. 2017. Penentu Kesejahteraan Pengusaha "Pemindangan" di Kabupaten Tabanan. Jurnal Ekonomi Kuantitatif Terapan. Vol. 10 No. 2. pISSN : 2301-8968; eISSN : 2303-0186.

[3] Thaheer H, Hasibuan S and Mumpuni FS. 2015. Model Resiko Keamanan Pangan Produk Pindang pada UMKM Pengolahan Ikan Rakyat. J. PASTI Vol. VII (2). ISSN : 2085 –5869.

[5] Dewi EN, Parmawati M and Ibrahim R. 2012. Kualitas Abon Ikan Tongkol (*Euthynnus affinis cantor*) yang Diproses Secara Deep Frying dan Pan Frying Selama Penyimpanan pada Suhu Kamar. SEMINAR NASIONAL KE-II : HASIL-HASIL PENELITIAN PERIKANAN DAN KELAUTAN. FAKULTAS PERIKANAN DAN ILMU KELAUTAN UNIVERSITAS DIPONEGORO.

[6] Guli MM. 2016. Patogenesis Penyakit Kolera pada Manusia. Biocelebes,Vol.10 No. 2 hlm. 18-24; ISSN : 1978-6417.

[7] Widyastana WY, Kawuri R and Dalem AAGR.. 2015. Keberadaan Bakteri Patogen *Vibrio Cholerae* Pada Beberapa Hasil Perikanan Yang Dijual Di Pasar Tradisional Kota Denpasar. Jurnal Metamorfosa II (1): 16-22. ISSN : 2302-5697.

[8] Safaa AME. 2018. A Review on Chitosan: Ecofriendly Multiple Potential Applications in the Food Industry. International Journal of Advancement in Life Sciences Research Online ISSN: 2581-4877. Journal homepage http://ijalsr.org.

[9] Adamiak, J, Anna O, Beata G and Anna P. 2016. Halophilic microorganisms in deteriorated historic buildings: insights into their characteristics. Acta Biochimica Plonica. Vol. 63, No 2/2016 335–341.

[10] Mustapha S, Mustapha EM and Nozha C. 2013. *Vibrio Alginolyticus*: An Emerging Pathogen of Foodborne Diseases. International Journal of Science and Technology Volume 2 No. 4.

[11] Pekala-Safinska A. 2018. Contemporary threats of bacterial infections in freshwater fish. *J Vet Res 62, 261-267.*

[12] Cicek M, Hascelik G, Mustak HK, Diker KS and Sener B. 2016. Accurate Diagnosis of Pseudomonas luteola in Routine Microbiology laboratory: on The Occasion of Two Isolates. Microbiology Buletine.

[13] Drzewiecka D. 2016. Significance and Roles of Proteus spp. Bacteria in Natural Environments. Microb Ecol (2016) 72:741–758.

[14] Houicher A, Esmeray K, Badis B and Fatih O. 2013. Histamine and tyramine production by bacteria isolated from spoiled sardine (*Sardina pilchardus*). African Journal of Biotechnology. Vol. 12(21), pp. 3288-3295. ISSN 1684-5315. Academic Journals. http://www.academicjournals.org/AJB.

[15] Comas-Baste O, Maria LL, Sonia S, Maria TV and Maria CV. 2019. Histamine and Other Biogenic Amines in Food. From Scombroid Poisoning to Histamine Intolerance. Licensee IntechOpen. (http://creativecommons.org/licenses/by/3.0).

DESCRIPTION OF CHILDREN'S DEVELOPMENT THAT EXPERIENCED SPEECH DELAY AFTER FOLLOWING BEHAVIORAL THERAPY

Ni Ketut Jeni Adhi
Psychology Study Program Universitas Dhyana Pura
ketutjeni@undhirabali.ac.id

ABSTRACT

This research is a qualitative research with case study method to see the description of the development of children who experience speech delay after participating in behavioral therapy. Research subjects are children who experience speech delay. This study aims to dig deeper into the description of the development of children who experience speech delay as well as external factors that are causing it so as to find alternatives in dealing with speech delay in children. The data collection method uses observation and interview techniques. The results showed the child experienced an improvement in speech, social, emotional, motor and cognitive development after participating in behavioral therapy consistently with play methods. External factors cause children to experience speech delays: lack of stimulus in the environment, parenting in the family, neighborhood and eating pattern. Behavioral therapy can also be done consistently at home by: parents provide exercises in the form of correct words, apply consistent rules, provide variants of eating to train mouth muscles, reduce the habit of giving gadgets and watching TV, playing roles or telling stories using picture media.

Keywords: *child development, speech delay, behavioral therapy.*

INTRODUCTION

Language development is one aspect of early childhood development. Capacity of language is one skill that is important in the overall life of the individual, not just children. Language is a means to interact with others. Language skills will be the main capital for children in communicating with friends, teachers, and also other adults [1].

Language as a communication tool is very important not only as a means of exchanging messages but also a tool to express thoughts and feelings to others which also functions to understand the thoughts and feelings of others [1].

The stages of language development in children are divided into several stages, namely: the first stage in the first month to the sixth month in which the child will start crying, laughing and screaming until from the sixth month to one year the word stage without meaning. The second stage starts from the age of one year to 2 years the child begins to express the meaning of the whole phrase, say two words, vocabulary of about 50-100 words. The third stage at 3-5 years old children can make sentences. The fourth stage of age 6-8 years is characterized by the ability to be able to combine simple sentences and complex sentences [2].

Based on the developmental stage, children aged 1-2 years should be able to say some vocabulary. However, the conditions in the field today are more and more children who experience language development disorders, especially in the aspect of delayed speech. Talking delays in children seem to increase rapidly every day. Some reports mention the incidence of speech and language disorders ranging from 2.3% - 24.6%. In Indonesia, it is mentioned that the prevalence of late speech in children is between 5% -10% in school children [3].

Children are said to experience delays in speech if the level of speech development is below the level of quality of speech development of children of the same age that can be known from the accuracy of the use of words. If when the peers talk using words while the child continues to use baby gestures and speech styles [4].

If children experience delays in talking will have an impact on children in developing their social skills with others, this is because children will find it difficult to communicate with others. Besides that, language skills in terms of speech are also highly related to children's learning abilities. If the child has difficulty conveying the message, it will also affect the child in the learning process [5].

Delay in talking to children is a serious problem that must be dealt with early on, if it is not immediately known the cause and how to handle it it will complicate the child in the process of further development. The role of parents is a person who is very responsible for the development of children's language [4].

METHODS

The approach in this research is descriptive qualitative using the case study method. Qualitative research with a case study model is a research that produces descriptive data and seeks to explore the meaning of a phenomenon accompanied by data mining in a manner [6].

Data collection techniques in this study were interviews, observation accompanied by notes on the results of child therapy. Interviews were conducted with the parents of the subjects while observation and recording of the results of child therapy was carried out at any time when the child was following behavioral therapy. Researchers take one subject, namely a child who experiences expressive late speech, ie the subject can understand an instruction but cannot express it through words only through expression or body language. Based on the results of interviews with parents, delays that occur are not caused by internal factors.

Data analysis techniques using the model of Miles and Huberman which consists of four stages that must be done. The first stage is the data collection stage, the second stage is the data reduction stage, the third stage is the *data display* stage, the fourth stage is the conclusion drawing stage, and/or the verification stage [6].

Table 1. Observation and Interview Guidelines

Domain	Item
Parenting at Home	What are the activities of children at home?
	How to take care of children at home?
Behavior Therapy with a Psychologist	What is done during therapy?
	How is the child's response during the therapy process?
	How is the child's development during the therapy process?

FINDINGS AND DISCUSSIONS

Subjects began taking behavioral therapy starting from 2017-now at the age of 2 years. Based on the results of interviews and preliminary observations conducted, subjects were not able to produce any vocabulary. The way to communicate so far is by pointing and pulling hands. In the home environment there are no peers. Subjects spend more time alone whether it's playing or watching television.

The process of behavior therapy is given by inviting subjects to play together. Introducing vocabulary things around given through toys like card to attract attention. This method is also applied at home and at the age of three the subject begins attending school in the *playgroup*. Based on behavior therapy that has been done table 2 explains the picture of child development.

Table 2: Overview of Child Development

Aspect	Development
Social	Social abilities develop well. Subjects at the beginning of therapy are still accompanied by parents, do not want to be left, are not open with the therapist and have not been able to adjust well to the therapeutic environment. Subjects need time to start adapting to the therapeutic environment. The thing done to familiarize themselves so that subjects dare to enter their own therapeutic room is by being accompanied by their parents, left for 10 minutes, starting to be left for 20 minutes until finally in the 18th therapy the subjects enter the therapy room without being accompanied again. Currently the subject is able to adapt well. Subjects have dared to enter their own therapy room, began to greet and greet the therapist. Subjects have started to say what they want and don't want. Subjects can already be invited to work together in therapy such as having to tidy up the toys given before taking another toy, take turns using toys and learn to say "ask" when wanting something. At this time what needs to be improved is the subject's interaction with peers. When there are other subjects who will be on therapy the subject is still often cool playing or running around and doesn't want to greet their peers.
Language	Early therapy subjects did not want to talk at all, do not want to imitate, the language that came out is not clear, babbling language that is not understood. The stimulation provided to train the subject's language skills, namely flash cards / pictorial cards, was also used by several toys that the subjects liked such as fruit, animal, puzzle and other replicas. At present the subject has been able to imitate what is taught, has begun to emerge several common words such as "want, no, yes, ask, sit, already, again" and other words. Pronounciation of subjects still needs to be trained again but the subject has begun to experience a rapid increase in pronounciation. At the beginning of the therapy the pronounciation of numbers and letters of the alphabet is not clear but at this time the pronunciation of subjects is increasingly clear. The subject has also begun to experience an increase in the pronunciation of words, if initially only said the final letter, but now the subject has begun to be able to pronounce it in full. The language released by the subject is now beginning to be understood by the interlocutor and the subject also understands and responds to communication from the interlocutor.
Physical	There are no problems in the physical development of the subjects, both fine motor and gross motor. But after participating in the development therapy increased. Subjects can walk, run, squat, get up, stand well. Likewise, with fine motor skills the subject can grasp, pick up small objects, hold a pencil, and scribble well. Subjects responded actively in the therapy so that the subjects often ran and wanted to quickly change toys. Subjects are still easily distracted and change toys so from that moment the subject needs to be trained in order to complete the task or game one by one.
Cognitive	Subjects have good cognitive abilities. During the therapeutic process subjects can understand the instructions given. The subject can also remember things that are taught such as color, animal names, fruit names and other surrounding objects but must be stimulated so that the subject really understands. Subjects are quick to respond to tasks given small-scale concepts, compiling puzzles can be solved well.
Emotive	Emotion develops quite well. When starting the therapy, it was clear that the subject was very moody, which was shown from the behavior of the subject who cried when he was not given the requested toy, threw the unwanted toy, away when it was forbidden. The better social ability of the subject makes the subject's emotions also develop. In the process of therapy the subject no longer cried, did not throw a toy if he didn't like it and the subject also started saying "want / don't want" if there were toys that he didn't like.

There are several factors that cause children to experience delays in speaking. In this case the child experiences delays in speaking due to lack of stimulus in the environment, parenting in the family that tends to be spoiled before the child says something and the neighborhood. This is reinforced by the results of interviews with parents that the subject of the first child lives only with parents and there are no peers in the surrounding environment. Activities that are often done by subjects are more often done alone and watch more television. This is what makes the subject less motivated in practicing their speaking ability.

Encouragement and also relationships with peers are suggested to make children more motivated to talk [7]. By inviting him to talk and encouraged responding to it will increasingly make children learn to talk. In addition, the more peers the greater the child's desire to be accepted as a peer group member which will make the child more motivated to learn to talk.

Another research suggests that watching television also greatly influences children's speech development. If the intensity of watching too much TV children become passive listeners [8]. As a result, within a certain period, which the brain should get a lot of stimulation from the environment and then give feedback again, but because more stimulation is television, then the brain cells that deal with language and speech problems will be hampered its development

Children living in a quiet environment is also one factor. Speech is a part of behavior, so its skills are through imitating [8]. If the stimulation of speech from the beginning is lacking or there is no imitation, it will inhibit the ability to speak in children.

Based on the explanation, the factors that cause delays in talking to children are psychic social or external factors. So following behavioral therapy, entering into a *playgroup* and providing a stimulus to encourage children to practice speaking is an alternative treatment that can be applied in the therapist environment, at school or at home.

In another study, it is suggested that children with speech delays require special handling, starting from stimulation in accordance with the problems experienced, intervention programs carried out both from the family and assisted by the therapist experts, parents and people around the child and care that can be applied in the environment around the child [9].

After participating in behavioral therapy the child has experienced development in every aspect. The development of the child is quite visible, now the child is independent enough to study in the therapy room without having to be accompanied. Children also want to imitate to say certain words that are exemplified, although the pronunciation is unclear. There are several names of objects, animal children already know and can say independently.

CONCLUSION

The results showed the child experienced an improvement in speech, social, emotional, motor and cognitive development after participating in behavioral therapy consistently with play methods. External factors that cause children to experience delays in speech: lack of stimulus in the environment, parenting in the family, neighborhood. Behavioral therapy can also be done consistently at home by: parents provide exercises in the form of pronouncing the correct words, applying consistent rules, reducing the habit of giving gadgets and watching TV, playing roles or telling stories using picture card media. Suggestions for further research are expected to find therapeutic methods that can be applied in the handling of children who experience speech delays due to internal factors.

ISBN: 978-602-53420-4-2

REFERENCES

[1] Wahyudi, U., & Agustin, M. (2011). *Early Childhood Development Assessment*. Bandung: PT Refika Aditama.

[2] Susanto, A. (2010). *Early Childhood Development: Introduction to Various Aspects*. Jakarta: Kencana.

[3] Suparmiati, A., Ismail, D., & Sitaresmi, MN (2016). Mother's relationship works with late talking to children. *Sari Pediatric*, *14* (5), 288-91.

[4] Yulianda, A. (2019). Factors That Influence the Delay Of Speaking In Children. *Literature: Indonesian Language and Literature Education Journal*, *3* (2), 41-48.

[5] Asrori, M. (2009). *Learning psychology*. Bandung: CV Wacana Prima.

[6] Herdiansyah.H. (2015). *Qualitative Research Methodology for Psychology*. Jakarta: Salemba Humanika.

[7] Ariyanti, A. (2010). *Differences in Development of Toddler Children in Working Mothers and Non-Working Mothers Assessment Using the Denver II Method* (Doctoral dissertation, Thesis).

[8] Anisafitri (2013). *Relationship of Television Watching Patterns with Talking Delays.* Diponogoro University. Downloaded on October 5, 2019 from http://eprints.undip.ac.id/43722/1/ANISAFITRI_G2A009074_BAB0KTI.pdf.

[9] Fitriyani, F., Sumantri, MS, & Supena, A. (2019). Language development and social emotions in children with speech delay: case study of 9 years olds in elementary school. *Journal of Counseling and Education*, *7* (1), 23-29.

ISBN: 978-602-53420-4-2

TRIPLE ROLES CONFLICT ON WOMEN'S CAREER PERFORMANCE: A LITERATURE REVIEW

Yeyen Komalasari
Universitas Dhyana Pura
yeyenkomalasari@undhirabali.ac.id

ABSTRACT

Triple roles conflict triggers to performance of women's career within the organization. Basically, this concept explains that when triple roles conflict is able to determine their performance. This research aims to examine gaps in the women's career performance within the organizational. The study analyzed findings of other conceptual and empirical studies. The result of the study demonstrates two important things. First, the role conflict of women not only comes from two domains, i.e. work-family, but also from three domains, namely Triple Roles Conflict i.e. work-family-culture. Second, the role conflict contributes to women's career performance. The practical implication of this research is to increase women's self-confidence based on the principle of gender equality for pursuing their performance. For the company, the results of this study can be used as reference in drafting a policy in the field of employment to give tolerance for barriers women on their performance.

Keywords: *triple roles conflict, women, career, performance*

INTRODUCTION

In the last two decades, research on women's career in organizations began to catch large attention. The triple roles conflict of women's career impact to employees or organization, such as individual performance, organizational performance. From the aforementioned explanations, women's career performance is significant to be given attention because of their role in realizing the organization's progress.

Women perceive their career often subjectively, based on their view on changes in the phases of life, such as getting married and having children. The changes in phases of life lead to role conflict as the most influential factor to women's career development, according to Kaleidoscope Career Model (KCM) [1]. In recent times, the studies about the role conflict of women that affects individual performance only focus on the dual role conflict, namely the conflict that occurs when running family role and economic role at the same time. Some earlier research claimed that women's career performance is influenced by family role and responsibilities [2,3,4]; domestic barriers [5]; work-family conflict and family-work conflict [6]; whereas the role of women today is very complex. Other studies suggest that women not only act on two domains, but rather on three domains of life [7,8]. Other than as a homemaker or wife, women should support the family economy and socio-culture in the religious customs. However, the additional socio-culture role is improperly defined. Therefore, this is study is important to do to enrich the literature related to the relationship of these three roles within the framework of women's career performance universally.

Given the importance of performance for women career, the organization should develop a program that is intended to minimize even eliminate barriers, including the conflict of roles. If this effort is successful, the organization will benefit in the form of increased motivation and commitment of women employees, in particular. Through the program, women are also expected to be able to maintain harmonization in the implementation of various roles.

METHODS

This paper presents a study related to triple role conflict and its contributions in influencing women's career performance. The first chapter will outline the importance of career women performance, that contribute to the performance of whole organization. At the subsequent chapters, there will be critical discussion on discourses related to triple role conflict and the linkage with women's career performance. Lastly, the study will propose future agenda for the next researchers, continued with drawing conclusions of this study.

FINDINGS AND DISCUSSIONS

Triple Roles Conflict On Women's Career Performance Multi role in the life of modern woman should be tackled with understanding how to maintain balance in work and personal life. The differences in history, structure, culture, and customs between countries require women to carry out different roles. The role conflict is the emergence of two or more role pressures that happen simultaneously [10]. Further, there are three types of role conflict. First, time-based conflict, occurs when the time required to perform work/family role reduces the time to perform the other role. Second, strain-based conflict, appears when tension of one of the roles affects the performance of the other role. Third, behavior-based conflict is related to the mismatch between patterns of behavior between work and family roles, namely the effective and proper behavior in one role might not be an effective and proper behaviour when performing the other role.

Women's career performance is influenced by how they can balance the roles on their life. When starting to have a career, women also enter a different phase of life, which is to have a family. In this phase, women are tied to the rules and norms that will affect their performance. For that reason, it takes extra effort to maintain harmony with spouses while fulfilling responsibilities in protecting and bringing up children. To have a career means playing economic role for women as breadwinners.

In addition to the dual role both in domestic life and work, women also play an important role in implementing and preserving customs and culture both inside and outside the home. Women often experience conflict in running the three roles, i.e. work-family-culture. This conflict can be psychologically disturbing, thus lowering performance of women's career. The company should pay attention to this condition because low individual performance would impact the performance of the organization as a whole.

Playing the dual role sometimes makes women come late at work, leave the office in working hours to pick up their child, take their child to the office, ask for permission to go home early to take care of the family, or leave the office to join cultural events. Career women must bear the risk of their performance, because the time to run the domestic role will be reduced, while family actually demands large attention [11].

Another study points out that women's career achievement will be obtained when they are able to balance work and family roles with the social support, for example from husbands [12]. In another study, it is argued that the more intense experience of work family conflict, the greater tendency of employees to resign from the company [13].

Criticism over the Literature Currently, most of the empirical studies specifically on female workers either through qualitative or quantitative research method, only concern the dual role (work-family). Meanwhile, it is much more complex because not only work and family roles, social life in the community also demands women to play a certain role. This can weaken the understanding on women's role; hence, no complete through information on role conflict is available in relation to women's career performance.

In addition to running the two roles, i.e. family role and economic role, women in the 21st century also contribute in socio-culture role in the community, here in after called the triple role [8]. This social role exists because, in the 21st century women generally have strong community bonds, such as in culture and religion in their neighborhood. As the embodiment of social construction, today's society demands women to play an active role in the society in addition to domestic and economic roles. The triple role that women employees perform often raise conflicts, due to the demand for the balance of work, family and culture roles. Women's extra effort to maintain balance in carrying out the triple role will affect their internal and external behavior. Discrepancy in implementing the community role will also make women get sanctions. A sanction is the attempt used by the community in assuring the proper implementation of the role to suit the expected role (ideal). It means the evaluation is a preservation of cultural identity as a social construction of society, even though it often causes conflict.

Understanding the triple role conflict experienced by women can add to knowledge about the definition of women's role, so that the parties concerned can devise policies related to women's career performance since it corresponds to actual conditions experienced by women.

The present study reveals that women not only have dual role (work-family role), but also three roles at once i.e. work-family-culture. This condition is in line with the ideas presented that women in the 21st century have three roles, namely; 1) reproductive work, the role of women in reproduction and childrearing responsibilities, 2) productive work, which deals with economic role, and 3) community managing work, i.e. to play an active role in the surrounding community [8]. Similar to the findings of the research in Western countries, one study that observed an indigenous village of Kuta, a village in Northern Bali, explains the existence of Balinese women's triple role that demands harmony in the implementation, namely: 1) the family role, as a care taker, a homemaker, a mother, wife, a daughter, or a daughter-in-law; 2) economic role, as a breadwinner in the family, even become the backbone of the family in certain circumstances, and; 3) the socio cultural role or religion that is required to maintain the social life as the actor implementing customs in families, in banjar, as well as in the indigenous village, to conform with the applicable norms and culture [9]. A woman is required to become a professional partner in an organization, but remains as a wife and mother who can protect the family, and also become an active member of society in performing religious traditions, namely Triple Roles Conflict [8,9]. Imbalance in performing those roles will lead to triple role conflict that would eventually hinder women's career performance. Therefore, the multi roles can be referred to as the triple role conflict for the next research.

CONCLUSION

Today's women have the capacity and deserve the opportunity to develop their performance in the organization. However, women are also required to perform three roles in life i.e. family, work, and culture. In an effort to revitalize the three roles, women are often confronted with multi role conflict, known as the triple role conflict. This type of conflicts is likely to affect their individual performance and would impact to whole organization. In fact, it is undeniable that female employees are capable of contributing positively to the organization as male employees.

This research aims to enrich the literature on triple role conflict of women employees and the relationship between the triple role conflict and performance. It can be said that if women want to plan for increasing their performance, it is crucial to first tackle the role conflict being encountered. If they manage to overcome the conflict, they will have a good performance. The implication of this research is to give information about women's view on respecting their dignity and striving for equal career, as well as other factors that need attention so that the organization could understand and accept the limitations of women but still support their work performance in organizational life.

Based on the results of this study, some recommendations are proposed for organization as the policy makers to provide support through specific employment program which favor women in planning their performance. The policy that gives the opportunity for women to achieve their performance advancement will encourage optimum contribution of female employees in the organization. Furthermore, the results of this study can be used as a reference for female employees in increasing tolerance of various internal barriers attached to their role.

REFERENCES

[1] Sullivan, S.E. and Mainiero, L.A. 2008. Using the Kaleidoscope Career Model to Understand the Changing Patterns of Women's Careers: Implementing Human Resource Development Programs to Attract and Retain Women. Business Faculty Publications. Fairfield University: Charles F. Dolan School of Business.

[2] Beauregard, A. 2007. Family influences on the career life cycle. Career choice in management and entrepreneurship: a research companion. Cheltenham, UK : Edward Elgar.

[3] Huang, Q. and Sverke, M. 2007. Women's occupational career patterns over 27 years: Relations to family of origin, life careers, and wellness. Journal of Vocational Behavior,70(1) p.369–397.

[4] Hakim. 2006. Women, careers, and work-life preferences. Department of Sociology, London School British Journal of Guidance & Counselling, 34 (3) p. 321-341.

[5] Mayrhofer, W. Meyer, M. Schiffinger, M. and Schmidt, A. 2008.The influence of family responsibilities, career fields and gender on career success. Journal of Managerial Psychology, 23 (3) p. 292-323.

[6] Ballout, H. I. 2008. Work-family conflict and career success: the effects of domain-specific determinants. Journal of Management Development, 27 (5) p.437-466.

[8] Moser, C. O.N. 1989. Gender Planning in The Third World: Meeting Practical and Strategic Gender Need. World Development, 17 (11) p. 1799-1825.

[9] Tirtayani, L.A. 2007. "Wanita Bali Dalam Pemaknaan Peran (Studi Fenomenologis terhadap Triple-Roles Wanita Bali, di Desa Adat Kuta)" (Tesis). Universitas Diponegoro.

[10] Greenhaus, J.H. and Beutell, N.J. 1985. Sources of conflict between work and family roles. Academy of Management Review, 10 (1) p. 76-88.

[11] Lyness, K.S. and Thompson, D.E. 2000. Climbing The Corporate Ladder: Do Female And Male Executives Follow The Same Route? Journal Of Applied Psychology, 85 (1) p.86-101.

[12] Marcinkus, W.C. Whelan-Berry, K.S. and Gordon, J.R. 2007.The relationship of social support to the work-family balance and work outcomes of midlife women. Women in Management Review, 22 (2) p. 86-111.

[13] Yavas, U., Babakus, E. dan Karatepe O. M. 2008. Attitudinal And Behavioral Consequences of Work-Family Conflict And Family-Work Conflict: Does Gender Matter?. International Journal of Service Industry Management. Vol. 19 (1). p. 1-37.

ISBN: 978-602-53420-4-2

ANALYSIS OF USER SATISFACTION TOWARDS OF DHYANA PURA UNIVERSITY WEBSITES USING THE WEBQUAL 4.0 METHOD

Gabriel Firsta Adnyana[1], Agus Tommy Adi Prawira Kusuma[2]

[1*]Department of Computer Science Universitas Dhyana Pura, [2]Department of Information Systems Universitas Dhyana Pura
*gabrieladnyana89@undhirabali.ac.id

ABSTRACT

In this day and age, electronic media that utilizes network connectivity that knows no space and time limits is Website. As an institution in education, Dhyana Pura University in Bali requires a website, teaching and learning activities (KBM) between lecturers, administrative staff and students to be posted on a Website www.undhirabali.ac.id. As time goes by, many problems are encountered, that is, there are still problems in terms of quality of use such as searching content that does not function properly, from the quality of information that is rarely updated, especially the news content, from the quality of service interactions such as the abundance of news found long time that is inaccessible as well as the appearance of a website application that is less attractive so it is less attractive from readers. In analyzing user satisfaction with the quality of a website it is necessary to do an assessment. The assessment conducted is the user's assessment of the quality of a Website using the Webqual method. In the Webqual 4.0 method, there are 4 (four) main variables, namely Usability, Information Quality, Service Interaction, and Overal Impression. The assessment of a website's quality is best done using the Webqual 4.0 method, which is the assessment of the end-user of the quality of a website. End users in this study are lecturers, administrative staff and students from Dhyana Pura University. The method of collecting data in this study is to distribute questionnaires using a random sampling method where respondents are taken at random. Therefore, this research was conducted in the environment of the University of Dhyana Pura Badung - Bali.Webqual 4.0 method is used to test the correlation between variables on the analysis of user satisfaction in this study. Testing is done through approaches with quantitative descriptive methods, namely by means of Chi Square testing. Chi Square is used to measure the four webqual variables, namely: usability quality, detailed and accurate information (Information Quality), service interaction quality (Overall Service Interaction), and overall user opinion (Overall Impression) on the quality of Dhyana Pura University website.

***Keywords**: user satisfaction, random sampling, dhyana pura university, webqual, website.*

INTRODUCTION

In this day and age, electronic media that utilizes network connectivity that knows no space and time limits is Website. Website or internet site is a collection of pages that contain and display data information in the form of text, images either static or dynamic, animation, sound, video or a combination thereof [1]. These data form a series of forms that are interrelated with one another network of pages or hyperlinks. World Wide Web (www or web).

Higher education creates a site to introduce and promote educational institutions. The purpose of creating a university website is to provide information on profiles, academic programs, facilities and facilities, activities that have been and will take place, achievements that have been obtained and so on [2]. With the site makes it easy for users to get information without having to come directly to the location.

As an institution engaged in education, of course Dhyana Pura University in Bali requires a website, teaching and learning activities (KBM) between lecturers, administrative staff and students to be posted on a Website www.undhirabali.ac.id. As time goes by many problems encountered namely there are still problems in terms of quality of use such as search content (searching) is not functioning properly, from the quality of information that is rarely updated, especially the news content, from the quality of service interactions such as the number of news found long time that is inaccessible as well as the appearance of a website application that is less attractive so it is less attractive from readers.

Based on the statshow.com site, it records 45,260 people accessing the undhirabali.ac.id website annually [3]. Found several problems, namely the website is less popular than the websites of several universities in Bali. At present the undhirabali.ac.id website is ranked 14,320 in Indonesia far behind the websites of several other universities in Bali [4]. As a result, users or website users have difficulty getting complete information and updates related to news from any content provided, and also the management has difficulty establishing cooperation with other agencies because the website rating is still low. Then found news content that is rarely updated, as a result users / website users find it difficult to get complete information and updates related to news from any content provided, thus causing reduced interest in visitors to open the website.

Furthermore, many old stories are found that cannot be opened again, namely published news. In analyzing user satisfaction with the quality of a website it is necessary to do an assessment. The assessment conducted is the user's assessment of the quality of a Website using the Webqual method. In the Webqual 4.0 method, there are 4 (four) main variables, namely Usability, Information Quality, Service Interaction, and Overal Impression. [2] The assessment of a website's quality is best done using the Webqual 4.0 method, which is the assessment of the end-user of the quality of a website. End users in this study are lecturers, administrative staff and students from Dhyana Pura University. The method of collecting data in this study is to distribute questionnaires using a random sampling method where respondents are taken at random. Therefore, this research was conducted in the environment of the University of Dhyana Pura Bali.

Several studies have been conducted to measure the quality of website pages using the webqual method with the title of the journal "Quality Pages: Case Study on Local Government Banks and State Owned Banks in Bekasi City" [6], and "Evaluating Wap News Sites: The Webqual / M Approach "[5], research" Benchmark Page Bhineka.Com and Eleveneia.Co.Id with the Webqual Method "with a journal entitled" Analysis of Page Quality Using the WebQual Method and Importance - Performance Analysis (IPA), "Measurement of website quality using the Webqual method "[7].

Some researchers have examined the effect of the webqual method on a website, but research that has been done relating to measuring website quality only compares a quality of a web page and learns about the behavior of consumers towards the use of the website. Based on this, the researcher is interested in researching about the measurement of the quality of the Bali Dhyana Pura University website.

Definition of Quality

"Qualitiy is the totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs" [6]. This means that quality is the totality of features and characteristics that make a product capable of satisfying needs, both stated and not stated. [8] Quality is the overall description and characteristics of goods and services that show their ability to satisfy a specified or implied relationship. While the definition formulated by Goetsh and Davis (1994) states that quality is a dynamic condition related to products, services, people, processes, environments that meet or exceed expectations. [9] A complete explanation regarding the definition of quality is the opinion of David (1988), according to him quality is divided into 9 (nine) dimensions. The 9 dimensions of quality include:

1. Performance, the main characteristics of the product, for example clear image on a television screen.
2. Features, additional characteristics, facilities or additional features, for example remote control.

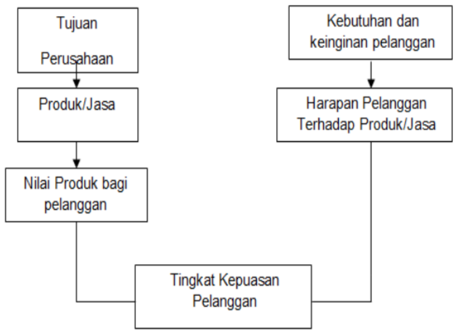
3. Conformance, industry specifications and industry standards.
4. Reliability, work consistency
5. Durability, the usefulness / durability of the product, including the warranty and repair period.
6. Service, responsibility for product problems and various consumer complaints about the product.
7. Response, producer-consumer relations, including the role of dealers.
8. Aesthetics, various characteristics related to psychological producers, distributors / dealers, and consumers.

Definition of Satisfaction

Satisfaction according to the Big Indonesian Dictionary (KBBI) is a matter (which is) satisfied; enjoyment; relief and so on. The definition is very simple, but when viewed from the perspective of management and consumer behavior, the definition changes to be so complex. Satisfaction is more defined from the perspective of consumer experience or customers after consuming or using a product or service.

Customer satisfaction is: "... a person feeling of pleasure or disappointment resulting from comparing a product's received performance (or outcome) in relations to the person's expectation" - one's feelings of pleasure or disappointment as a result of the comparison between perceived achievements or products and which he hoped [10].

Basically the notion of customer satisfaction includes the difference between the level of importance and the performance or perceived results [11]. Engel (1990) and Pawitra (1993) say that this understanding can be applied in the assessment of satisfaction or dissatisfaction with a particular company because they are closely related to the concept of customer satisfaction can be seen in the following diagram.



Sumber: Oliver dalam Engel et al. (1990) dan Pawitra (1993)

Figure 1. Concept Diagram of Customer Satisfaction

Explanation of Pages

Pages can be interpreted as a collection of web pages that are used to display text information, still or motion pictures, animation, sound, and or a combination of all, both static and dynamic that form a series of interrelated buildings, each of which connected by page networks [1]. The relationship between one page and another page is called Hyperlink, while the text used as a connecting media is called Hypertext.

Measuring Quality of a Page

There are five criteria to measure a page, namely accuracy (accuracy), source (authority), destination (objectivity), circulation (currency), and news coverage (coverage) [6]._Measuring Quality of a Page. Meanwhile, there are five criteria to measure a page, namely accuracy (accuracy), source (authority), destination (objectivity), circulation (currency), and news coverage (coverage) [6].

ISBN: 978-602-53420-4-2

WebQual

WebQual is a method of measuring page quality based on the perception of end users (the public). This method is the development of Servqual which was widely used before in measuring service quality [6]. The research instruments at WebQual were developed with a meaningful QFD method: Structured and disciplined processes that provide meaning to identify and carry the customer's voice through each stage of production or development and application (Slabey, 1990).

Page quality (WebQual) is based on the QFD method. The application of QFD starts with finding "the voice of the consumer" in other words finding the quality needs according to the wishes of the consumer. The quality demanded by these consumers then becomes an evaluation of a product or service. WebQual is made to learn the characteristics or features of a page [6].

From 12 dimensions, including appropriate information, appropriate topics, reliable information, response time, easy to understand, intuitive operation, attractive appearance, innovative, emotionally attractive, consistent, complete and useful image display [6]

WebQual began to be developed since 1998 and in its development has experienced several iterations in the compilation of dimensions and question points. WebQual is compiled based on research from four areas, namely (1) user quality, (2) information quality from information system research, (3) interaction quality and service quality from information system quality research, and (4) quality of all attributes. Metobe WebQual is currently one of the best methods used to measure the quality of a page.

WebQual 4.0 is based on research consisting of four dimensions of the area:

1. Quality of Use (Usability of human computer interaction)
   Usability is quality related to page design, for example appearance, then user, navigation and images that will be conveyed to users (Barnes and Vidgen; 2002 in Tarigan, 2008). The quality of use includes, ease of understanding, ease of tracing, ease of use, very interesting, displaying a pleasant visual form, having good competence, giving a pleasant new experience.
2. Information Quality from Information Systems Research (Information Quality)
   Information Quality is the quality of the content contained on the page, whether or not the information is suitable for user purposes such as accuracy, format and relevance (Barnes and Vidgen; 2002 in Tarigan, 2008). The quality of information includes things such as accurate information, reliable information, the latest information, information in accordance with the topic, information that is easy to understand, very detailed information, and finally the information presented in an appropriate design format (Bames, 2003).
3. Interaction Quality and Service Quality from Researchers Information System Quality (Service Interaction Quality)
   Service Interaction Quality is the quality of service interactions experienced by users when they investigate deeper web pages. For example, issues of transaction and information security, product delivery, personalization and communication with website owners (Barnes and Vidgen; 2002 in Tarigan, 2008). The quality of interaction includes the ability to provide security during transactions, have a good reputation, facilitate communication, create more personal emotional feelings, have confidence in storing users' personal information, be able to create more specific communities, be able to provide confidence that promises delivered is kept.
4. Overall Quality (Overall Impression)
   Research the quality of all three qualities above. The user's perception consists of two parts, namely the perception of perceived service quality (actual) and the level of expectation (ideal). Barnes and Vidgen (2003) conducted a study entitled "An Integrative Approach to the Assessment of E-Commerce Quality" which uses WebQual to measure page quality.

Dimention quality of web	WebQual 4.0 Items
Usability	• *I find the site easy to learn to operate* • *My interaction with the site is clear and understandable* • *I find the site easy to navigate* • *I find the site to use* • *The site has an attractive appearance* • *The design is appropriate to the type of site* • *The site conveys a sense of competency* • *The site creates a positive experience for me*
Information Quality	• *Provides accurate information* • *Provides believable information* • *Provides timely information* • *Provides relevant information* • *Provides easy to understand information* • *Provides information at the right level of detail* • *Present the information in an appropriate format*
Service Interaction/ Interaction Quality	• *Has a good reputation* • *It feels safe to complete transactions* • *My personal information feels secure* • *Creates a sense of personalization* • *Conveys a sense community* • *Makes it easy to communicate with the organization* • *I feel confident that goods/service will be delivered as promised*
Overall Impression	*My overall view of this website* (Pendapat secara keseluruhan tentang laman ini)

Source: Barnes dan Virgen, 2003

METHODS

Based on Website Quality (WebQual) modeling, there are three dimensions of website quality which will then be used as Independent Variables. Three dimensions of website quality [6], namely:

1. Variable X1 is the Usability Quality dimension.
2. Variable X2 is the dimension of Information Quality.
3. Variable X3 is the dimension of Service Interaction.

While the Bound Variable (Y) is user satisfaction (User Satisfation). Therefore, the conceptual model of this study can be seen in the following figure:

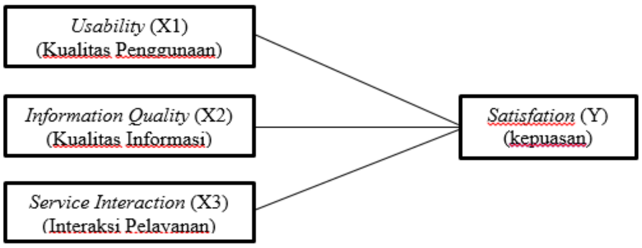


Figure 2. Conceptual Framework for Research

ISBN: 978-602-53420-4-2

Research Stage

Figure 3. Research Design

Sample Collection Techniques

In sampling from a population can be divided into two categories of sampling techniques, as contained in the picture below:

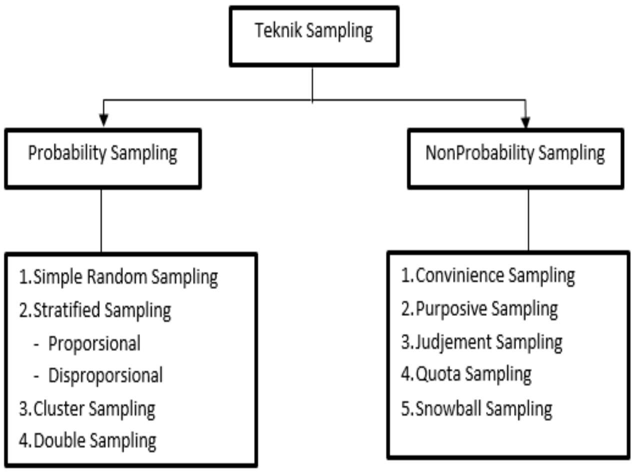


Figure 4. Sampling Technique

Probability Sampling

This is a sampling method where each member of the population has the same chance of being selected as a sample.

1. Simple Random Samples (Simple Random Sampling)
   Simple random sampling is a sampling technique that provides equal opportunities to every member in a population to be sampled [12]. The requirements to be able to do a Simple Random Sampling technique are:
   - Members of the population do not have strata so it is relatively homogeneous.

ISBN: 978-602-53420-4-2

- The existence of a sample framework that is a list of population elements that are used as a basis for sampling.

2. Stratified Sampling
   Stratified Sampling is a sampling technique with populations that have strata or levels and each level has its own characteristics [12]. Because the number of populations in each stratum is not the same, in its implementation there are two types, namely:
   - Proportional, i.e. the number of samples taken from each stratum is proportional, according to the proportional size.
   - Disproportional, i.e. the number of samples taken from each stratum is not equal in proportion to the total population with the proportion of samples in each stratum. Calculations to determine the number of samples taken from each stratum.
3. Cluster Sampling
   The sampling technique using this method is that the population is divided first into groups based on area or cluster, then some clusters are selected as samples, from the cluster can be taken in whole or in part to be sampled [12]. Members of the population in each cluster need not be homogeneous, the sample is drawn by a combination of stratified and cluster sampling techniques.
4. Double Sample
   Double sample is often referred to as sequential sampling (multilevel sample) multiphase sampling (multi-stage sample) [12]

Population and Research Samples

The population in this study were lecturers, administrative staff and students from Dhyana Pura University, Bali. The number of indicators used in this study is 24, so the number of respondents as a sample between 120 to 240 respondents. This study uses 150 respondents, while the sampling technique uses random sampling.

FINDINGS AND DISCUSSIONS [VERDANA, 11PT]

Data Reliability Test Results The reliability test was measured using SPSS software version 22 using the Cronbach Alpha method, a reliable instrument when it met the Cronbach Alpha coefficient standard greater than 0.4 (a> 0.4). From the results of reliability measurements where N = 23 (number of questions) obtained a Cronbach Alpha value of 0.481, this means that this research instrument meets the requirements to be declared reliable whose results are shown in Table 1.

Table 1. Data Reliability Test Results

Case Processing Summary

		N	%
Cases	Valid	150	100.0
	Excluded[a]	0	.0
	Total	150	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.481	23

ANOVA

		Sum of Squares	df	Mean Square	F	Sig
Between People		144.341	149	.969		
Within People	Between Items	642.907	22	29.223	58.168	.000
	Residual	1646.832	3278	.502		
	Total	2289.739	3300	.694		
Total		2434.080	3449	.706		

Grand Mean = 3.4400

Chi Square Test

Crosstab test is a table-shaped analysis mode that is used to identify and find out whether there is a correlation or relationship between one variable with another variable. It can be said that Crosstab test analysis is a method for tabulating several different variables into one matrix. The table analyzed here is the relationship between variables in rows and variables in columns.

The cross table (Crosstab) in this study was conducted on five dimensions contained in descriptive analysis where there are attributes that are part of descriptive analysis.

The chosen test is Chi Square to see whether there is a relationship [8] [9] [10] [11] [12] [13] [14] n between row and column variables, namely user characteristics and perceived level of user satisfaction.

Table 2. Test Results of Research Instrument Validity

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
U1	75.3733	20.974	.133	.199	.471
U2	75.3533	21.317	.065	.224	.483
U3	76.3000	21.487	.024	.201	.492
U4	75.2333	21.106	.099	.161	.477
U5	76.3267	20.423	.170	.253	.464
U6	76.2133	20.384	.200	.145	.458
U7	76.1133	20.222	.163	.316	.465
U8	75.3867	20.695	.190	.177	.461
IQ9	75.3800	21.123	.104	.188	.476
IQ10	75.3667	20.596	.186	.164	.461
IQ11	76.3200	22.085	-.048	.167	.502
IQ12	75.3733	22.115	-.049	.192	.501
IQ13	75.3867	20.816	.156	.183	.467
IQ14	76.2800	21.505	.028	.203	.490
IQ15	75.2067	20.876	.154	.168	.467
SI16	75.4200	21.306	.091	.067	.477
SI17	75.4000	20.779	.160	.107	.466
SI18	75.5000	21.326	.092	.145	.477
SI19	75.3133	19.787	.308	.316	.439
SI20	75.2533	20.794	.169	.265	.465
SI21	76.2467	20.737	.125	.165	.472
SI22	76.2667	20.318	.196	.170	.458
OI23	75.6267	19.148	.455	.389	.415

Source: Questionaire Analysis

ISBN: 978-602-53420-4-2

From the output analysis in the reliability test above, when viewed the Corrected Item-Total Correlation column is the calculated r value for each question item for each variant. The value of r count for each item is positive and the value is greater than rtable, then it is computed rcount> rtabel alias item statement is said to be valid.

Table 3 Summary Cross Table (Crosstab) for the Usability dimension

Dimensi Usability	Hasil Tabel Silang (Uji Crosstab) & Uji Chi Square	Hasil Analisis
Pendidikan	Asymptot signifikan, yaitu 0,124 > 0,04	H0 Diterima
Kelamin	Asymptot signifikan, yaitu 0,798 > 0,04	H0 Diterima
Usia	Asymptot signifikan, yaitu 0,952 > 0,04	H0 Diterima
Pekerjaan	Asymptot signifikan, yaitu 0,086 < 0,04	H1 Diterima (H0 Ditolak)

From table 3 it can be concluded that for Education, Sex, Age, and Occupation there is no influence or relationship to the Usability (HO Accepted) dimension.

Table 4 Summary of the Crosstab for the Interaction Quality dimension

Dimensi *Information Quality*	Hasil Tabel Silang (Uji Crosstab) & Uji Chi Square	Hasil Analisis
Pendidikan	Asymptot signifikan, yaitu 0,318 > 0,04	H0 Diterima
Kelamin	Asymptot signifikan, yaitu 0,477 > 0,04	H0 Diterima
Usia	Asymptot signifikan, yaitu 0,403 > 0,04	H0 Diterima
Pekerjaan	Asymptot signifikan, yaitu 0,737 > 0,04	H0 Diterima

From Table 4 it can be concluded that for Education, Sex, Age, and Occupation there is no influence or relationship to the dimensions of Interaction Quality (HO Received).

Table 5 Summary of the Crosstab for the Services Interaction dimension

Dimensi *Services Interaction*	Hasil Tabel Silang (Uji Crosstab) & Uji Chi Square	Hasil Analisis
Pendidikan	Asymptot signifikan, yaitu 0,904 > 0,04	H0 Diterima
Kelamin	Asymptot signifikan, yaitu 0,914 > 0,04	H0 Diterima
Usia	Asymptot signifikan, yaitu 0,468 > 0,04	H0 Diterima
Pekerjaan	Asymptot signifikan, yaitu 1,000 > 0,04	H1 Diterima (H0 Ditolak)

From Table 5 it can be concluded that for Education, Sex, Age, and Occupation there is no influence or relationship to the Services Interaction dimension (HO Received).

Table 6 Summary of the Cross Table (Crosstab) for Overall Impression dimensions

Dimensi *Overall Impression*	Hasil Tabel Silang (Uji Crosstab) & Uji Chi Square	Hasil Analisis
Pendidikan	Asymptot signifikan, yaitu 0,168 > 0,04	H0 Diterima
Kelamin	Asymptot signifikan, yaitu 0,702 > 0,04	H0 Diterima
Usia	Asymptot signifikan, yaitu 0,050 > 0,04	H0 Diterima
Pekerjaan	Asymptot signifikan, yaitu 0,000 < 0,04	H1 Diterima (H0 Ditolak)

From Table 6 it can be concluded that for Education, Sex, Age, and Occupation there is no influence or relationship to the Overall Impression dimension (HO Received).

Table 7. Test results for One Sample t-Test for Research Instruments

One-Sample Test

Test Value = 0

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
U1	66.770	149	.000	3.74667	3.6358	3.8575
U2	63.422	149	.000	3.76667	3.6493	3.8840
U3	43.920	149	.000	2.82000	2.6931	2.9469
U4	66.186	149	.000	3.88667	3.7706	4.0027
U5	42.937	149	.000	2.79333	2.6648	2.9219
U6	47.786	149	.000	2.90667	2.7865	3.0269
U7	41.917	149	.000	3.00667	2.8649	3.1484
U8	69.051	149	.000	3.73333	3.6265	3.8402
IQ9	65.504	149	.000	3.74000	3.6272	3.8528
IQ10	65.285	149	.000	3.75333	3.6397	3.8669
IQ11	47.397	149	.000	2.80000	2.6833	2.9167
IQ12	65.841	149	.000	3.74667	3.6342	3.8591
IQ13	66.083	149	.000	3.73333	3.6217	3.8450
IQ14	45.741	149	.000	2.84000	2.7173	2.9627
IQ15	71.013	149	.000	3.91333	3.8044	4.0222
SI16	69.415	149	.000	3.70000	3.5947	3.8053
SI17	65.432	149	.000	3.72000	3.6077	3.8323
SI18	69.100	149	.000	3.62000	3.5165	3.7235
SI19	64.689	149	.000	3.80667	3.6904	3.9229
SI20	70.447	149	.000	3.86667	3.7582	3.9751
SI21	44.167	149	.000	2.87333	2.7448	3.0019
SI22	45.274	149	.000	2.85333	2.7288	2.9779
OI23	63.569	149	.000	3.49333	3.3847	3.6019

In this section an analysis of the One Sample t-Test Test consists of:

1. Analysis:
   - Hypothesis
     H0: There is no gap between the end user / end user page on Undhirabali.ac.id.
     H1: There is a gap between the end user / end user of the Undhirabali.ac.id page.
   - Decision-making
     1. Based on comparison of t arithmetic with table: Conditions:
   - H0 received: If tcount is in between-table and + ttable values
   - H0 is rejected: If t arithmetic is not between the values of table and + table.

   From the results of the table above, with a significant level of (a) 5% with df (degrees of freedom) = n-1, compared to the Tcount seen from the results of the t value.

ISBN: 978-602-53420-4-2

2. Based on the probability value Provisions:
   - If the probability is> 0.05 then H0 is accepted
   - If the probability is <0.05 then H1 is rejected

CONCLUSION

The The results of the evaluation of the study of the quality measurement of the Dhyana Pura University website on user satisfaction that have been carried out from this study can be concluded that in general it is satisfactory with an average score of 3.49, but there are several instruments in the 4 dimensions of the Webqual method that are less satisfying namely:

1. U3 (3. The Dhyana Pura University website page has clear instructions)
2. U5 (Dhyana Pura University website has an attractive design / feature)
3. U6 (The website page of Dhyana Pura University has a design according to the type of page (academic website)
4. IQ11 (Dhyana Pura University website page provides timely and up-to-date information)
5. IQ14 (page of Dhyana Pura University website provides detailed and complete information)
6. SI21 (page of the Dhyana Pura University website makes it easy to communicate with the organization from that page)
7. SI22 (Website of Dhyana Pura University website gives confidence that the service will be as good as promised).

REFERENCES

[1] R. Hidayat, Cara praktis membangun website gratis, Jakarta: Elex Media Komputindo, 2010.

[2] I. Sanjaya, "Pengukuran Kualitas Layanan Website Kementrian KOMINFO dengan Menggunakan Metode Webqual 4.0," vol. 14, p. 1, 2012.

[3] "statshow.com," [Online]. Available: www.statshow.com. [Accessed 20 Agustus 2018].

[4] "Alexa," [Online]. Available: www.alexa.com. [Accessed 20 Agustus 2018].

[5] H. Mediyawati. [Online]. [Accessed 18 September 2017].

[6] R. Vidgen and S. Barnes, "Assessing the Quality of a Cross-National eGovernment A Case study of the Forum on Strategic management knowledge exchange," in *Hawai International Conference on System Sciences*, Hawaii, 2003.

[7] S. and D. O. Soemantri, "Pengukuran kulitas website dengan menggunakan metode webqual 4.0 (Studi Kasus : CV Zamrud Multimedia Network)," *Jurnal Rekayasa dan Manajemen Sistem Informasi,* vol. 2, 2016.

[8] S. J., Pengukuran Tingkat Kepuasan Pelanggan untuk Menaikkan Pangsa Pasar, Jakarta: PT. Rineka Cipta., 2006.

[9] A. L. B. a. V. Z. Parasuraman, "“Refinement and Reassesement of the SERVQUAL Scale”," *Journal of Retailing,* Vols. Vol. 67, No 4, pp. 420-450., 1991.

[10] A. L. B. a. V. Z. Parasuraman, "A Conceptual Model of Service Quality and its Implications for Future Research," *Journal of Marketing,* Vols. Vol.49, , pp. 41-50., 1985.

[11] A. L. B. a. V. Z. Parasuraman, "SERVQUAL: A Multiple Item Scale for Measuring Cunsumer Perceptions of Service Quality," *Journal of Retailing,* vol. Vol.64, pp. 12-40, 1988.

[12] S. Siregar, Statistika Deskriptif Untuk Penelitian : Dilengkapi perhitungan Manual dan Aplikasi SPSS Versi 17, Jakarta: Raja Grafindo Persada., 2011.

ISBN: 978-602-53420-4-2

[13] D. Sunyoto, Statistika Deskriptif dan Probabilitas, Yogjakarta: CAPS (Centre for Academic Publishing Service)., 2016.

[14] F. Tjiptono, Service Management Mewujudkan Layanan Prima. Edisi Kedua., Yogyakarta.: Andi, 2012.

[15] S. .. A.S Rossa, Rekayasa Perangkat Lunak,, Bandung: Modula, 2011.

[16] L. D. B. K. C. Jeffrey L. Whitten, System Analysis and Design Methods 5th Ed, New York: DittmanMcGraw-Hill, 2001.

[17] 2. Kotler Philip, Manajemen Pemasaran, Edisi Milenium, Jakarta.: Prehallindo, 2006.

[18] P. Kotler, Manajemen Pemasaran Edisi 11, Jakarta: PT. Indeks, 2006.

A QUANTITAVE PRESPECTIVE OF DIVERS PERCEPTION AS INPUT FOR MANAGING TULAMBEN DIVING TOURISM DESTINATIONS IN BALI INDONESIA

Rahmadi Prasetijo
Department of Biology Universitas Dhyana Pura
rahmadiprasetyo@undhirabali.ac.id

ABSTRACT

Bali marine tourism development is tend to increase significantly since 2009 after the second Bali bombing incident. However, the total numbers of diving site destination in Bali are not comparable with number of divers, both of domestic and non-domestic. Recently, the total number of diving site in Bali are 16 sites whereas the numbers of dive operator are 330 companies. These phenomena cause heavy competition amongst businesses to survive as well as the careless attention of marine environment and the degrade of satisfaction in diving experiences. This paper aims to study the effects of site access, sea water condition, the marine beautiness, and the underwater diversity of Tulamben, the most famous dive site in Bali, toward divers' satisfaction as well their willingness to pay (WTP) for the entrance and dive fee. Covariance-based structural equation modeling (CB-SEM) was applied to analyze the causal relationship among variables with data were collected from 200 divers in the period January to March 2018. The CB-SEM showed, positioned as the exogenous variables, the sea water condition is the only factor that affects divers' satisfaction while the others demonstrated insignificant influences. In addition, divers' satisfaction, in turn, showed significantly effect to their WTP in paying the fees. The recommendations of this result are implement visitor management as like a one- gate system to entering Tulamben diving site (to change the mass tourism concept to quality tourism concept), involving the divers and the other stake holders to creating and supplying the others under water attraction, make an agreement to manage a transparent financial management and Training the DM or Dive Instructor about marine environment

***Keywords**: Bali, diving site, SEM, Tulamben, WTP*

INTRODUCTION

Since the 1990s, tourism has been the main pillar of Bali's economic growth. Nearly 30 percent of Bali's regional gross domestic product comes from the tourism sector and the agricultural sector in a broad sense. The dominant role of tourism in Bali's economic growth has led to the development of various tourist attractions offered to tourists. One of them is diving attractions which are classified as attractions on marine tourism.

During this time, Bali is very famous as one of the favorite destinations for foreign tourists because the beauty of its culture as well the customs of its Hindu residents. Various types of Hindu religious rituals can be enjoyed by tourists during their visit in Bali. Unfortunately, only a small portion of those who know the underwater world of Bali also offer a tour experience that is hard to forget. At present, Bali at least has five very attractive dive sites, namely Tulamben, Jemeluk, and Padangbai in Karangasem Regency; Nusa Penida Island area in Klungkung Regency; and Pemuteran in Buleleng Regency.

Judging from its popularity, Tulamben seems to outperform four other dive sites in Bali. This is inseparable from the existence of the ruins of USAT Liberty, United States warships that served in the Asia Pacific during World War II and sank at this location in January 1942, and dive sites that can be reached directly without divers must use a boat to reach it as they observed in the Nusa Penida Island Region where divers have to rent a fishing boat to the dive site. The Statistics Office of Bali noted that the number of tourists in Tulamben diving tourism in 2003 was 15,235 divers, in 2004 there were 22,825 divers, then jumped consecutively to 2012 reaching 71,802 divers, in 2013 there were 73,135 divers and in 2014 reached 77,842 divers, which means during the period from 2003 to 2014 or 11 years, the number of divers increased by about 5 times.

Despite of the economic benefits for local people, diving attraction at Tulamben underwater also raises some negative impacts. According to United Nations of Environment Program of 2012, there are at least five negative impacts of tourism, namely the increase in greenhouse gas emissions due to the high utilization of transportation and accommodation, the consumption of clean water as a basic need, the amount of waste and damage to the environment of flora and fauna, conflicts with and/or within local communities due to issues of money and power, and the threat of cultural integration due to cultural differences, insights, perspectives and spirituality. All of these negative impacts are significant to the sustainability of tourism. For Tulamben, the negative impact of diving tourism was also observed, especially in the reduction the quality of coral reefs. It has long been known, damage to coral reefs is generally caused by two things, namely, first by natural factors such as rising sea temperatures, earthquakes, tsunamis and by storms, and the second factor is damage caused by human activities [1].

The number of tourists who enjoy diving tourism in Tulamben, may not be the main factor that directly contributes to the destruction of coral reefs or shipwreck attractions, but the number that continues to increase can be a distinctive pressure for the conservation of underwater biota in Tulamben. The uncontrolled or under-controlled tourism industry is a major cause of damage to coral reefs. Some of the activities that cause it include pollution of hotel and restaurant waste that can cause eutrophication, physical damage to corals by boat anchors, damage to corals by divers and collections and diversity of coral biota as their souvenirs. Related to the rapid development of diving visits to Tulamben accompanied by competition between dive operators who tend to pay less attention to the underwater carrying capacity, this paper is aimed at:

1. Knowing the level of satisfaction of diving tourists in Tulamben caused by four exogenous variables, namely (a) access to the dive sites; (b) the beauty of underwater panoramas; (c) water conditions; and (d) underwater diversity;
2. Find out the effect of the satisfaction of diving tourists in Tulamben on their willingnes to pay (WTP) the entrance fee to the dive site.

LITERATURE REVIEW

Related to tourist activity during diving, a previous research stated that 73.9 percent of divers at least touched the reef once in each dive activity at a diving destination in Saint Lucia, Venezuela, in the Caribbean Sea [2]. At this location, contact divers are equipped cameras on corals were higher than those without cameras (on average 0.4 compared to 0.1 contacts per minute). In addition, the contact of divers on the reef with flat topography is higher than the slope topography as well as 97.9 percent of divers who start diving from shore are more often in contact with divers who use ship to the dive site (on average 0.5 compared to 0.2 contacts per minute). Night dive is more likely to damage than day dive (1 compared to 0.4 contacts per minute). If there are instructions or supervision from the dive master, the damage can be reduced from 0.3 to 0.1 contacts per minute.

Related to the contact that occurred between diving tourists and corals, a previous research found about 97 percent of divers in Thailand made contact in the first 10 minutes [3]. Two-thirds of them have been proven damaged corals with their fin. Furthermore, is also revealed that professional divers with photographic expertise are less damaging than the amateur photographers as well as male divers are less damaging the corals than female [3]. Another research conducted stated that divers who lack mastery of buoyancy techniques also has the potential to damage the corals [4].

The characteristics of marine tourists, especially diving, in Bali show that diving activities attract as much as 90.8 percent of the market for divers with beginner qualifications (picnikers). Tourists in this group are categorized to young divers, have limited diving experiences between 1-5 years, and are educated. In addition, they can be classified as repeater tourists with a length of stay in Bali as much as 4-5 days and their time spent for diving on average for 1-2 hours per day [5]. He also stated that the background of divers with relatively very limited diving experience has a great potential to the damage of coral reefs when diving. Other triggering factors are the ocean currents at the dive sites that are impossible to avoid as well as the possibility of repeated dives in a day that leads divers to experience fatigue and use corals as a medium to protect him/herself against currents and to maintain his buoyancy.

A study that examined the relationship between the level of satisfaction and loyalty of diving tourists found a very significant relationship between the satisfaction of diving tourists with their loyalty to return to enjoy diving activities in Bali [6]. In addition, the results of their research also found a very strong correlation between intrinsic and extrinsic motivation of marine tourists, especially diving. Referring to the results of this study, it can be hoped that if divers to be involved in coral reef management activities, they will be enthusiast.

Meanwhile, willingness to pay (WTP) is defined as the amount a consumer could pay to obtain an item or service. WTP are prices at the consumer level that reflect the value of goods or services and efforts to obtain them. In addition, some literatures suggest that WTP is determined by the interest and experience in consuming goods and/or services that is reflected in the level of customer satisfaction.

Divers in conservation areas around the world are willing to pay additional fees as conservation costs as long as their money is solely intended to preserve the area [8]. Furthermore, they justified that a decentralized payment system in an area had a positive effect on willingness to pay. In a research conducted in the Philippines, divers were willing to pay more to be able to enjoy the beauty of corals and reef fish in a watershed area where reef fishing is prohibited in the area [9]. In estimating the factors that affect the WTPs, age, education, income, and occupation factors to be very influential on the value of the WTP paid, while the sex factor was not proven to influence it [10]. The range values of WTP that divers are willing to pay after seeing the coral damage due to bleeching in South Trang Province in Thailand varies from 7 to 15 $ USD.

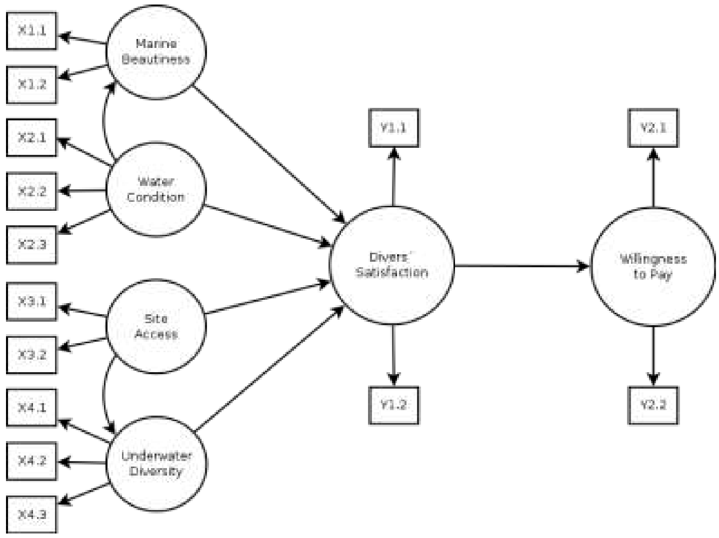
Related to the development plan of sustainable marine tourism in the Nusa Penida region, located at the southern of Klungkung regency in Bali, although the rules and/or ethics in diving at this area has not been well socialized as well as the level of coral damage is not yet known by the divers, but as many as 45 percent of them expressed willingness to pay additional costs as conservation fee with a range of Rp. 5,000 - Rp. 150,000 per person per visit (average IDR 20,000 or approximately $ 1.5 USD), and 67 percent said they were willing to pay conservation fees in the range of USD $ 5 - $ 15 per person per one visit (an average of US $ 7.5) [11]. Previously, in a research at Nusa Penida and Nusa Lembongan (small island on the west of Nusa Penida), stated that 83 percent of diving tourists have a willingness to pay ranging Rp. 53,000 – Rp 95,000 per arrival (4 USD– 7.5 $) [12].

METHODS

This research was designed using a quantitative approach. A set of questionnaire was designed at the beginning of the research and was tested before data collection conducted through guided surveys. After the questionnaire was proven to be suitable as a research instrument, primary data was collected by distributing it to tourists as soon as they completed their diving activities at the research location located in Tulamben Village, Kubu District of Karangasem regency, Bali. This marine tourism area has been designated as a natural tourist attraction with an area of 26 km^2. Data is collected from June to August 2018 by distributing questionnaires to 200 dive tourists.

Before being used as a data collection instrument, the questionnaire designed in this study was tested on 40 dive tourists at the site in March 2018. The trial was intended to determine the validity of each indicator and the reliability of each latent variable in the model. An item or reflective indicator is considered valid if the correlation value of items with all items on the same latent variable ≥ 0.30, and a concept represented as a latent variable on the model is considered reliable if the Cronbach's α coefficient value is at least 0.60 [13,14,15]. To elaborate the causal relationship between the determinants of the level of satisfaction of dive tourists with their WTP, a covariance- based structural equation model (covariance-based SEM) is developed with an operational model is shown on Fig. 1 with the operational variables is listed on Table 1. The data is analyzed using AMOS [16].

Figure 1. The Operational Model



FINDINGS AND DISCUSSIONS

The Assessment of Research Instrument

To assess the quality of designed questionnaire, validity and reliability test is conducted using SPSS for Windows. The result is listed on Table 1. The analysis shows that all indicators in each construct have a correlation value above the lower limit required, so it can be concluded that the construct indicators are valid. The same finding goes for construct reliability. The six constructs are proven to have alpha values above 0.60 which are required. Noting the results of both tests, the questionnaire is concluded appropriate to be used as an instrument for collecting research data.

Table 1. Validity and Reliability Test

Construct	No. Item	Alpha Value	Note	Indicators		
				Code	Description	Correlation
Marine Beautiness	2	0.838	Reliable	X1.1	Coral condition	0.891
				X1.2	Supporting objects	0.896
Water Condition	3	0.815	Reliable	X2.1	Water is relatively clear	0.818
				X2.2	Calm water	0.840
				X2.3	Water is not dangerous	0.814
Site Access	2	0.887	Reliable	X3.1	Direct access to site	0.896
				X3.2	Availability of transport	0.818
Underwater Diversity	3	0.846	Reliable	X4.1	Coral diversity	0.840
				X4.2	Fish diversity	0.814

ISBN: 978-602-53420-4-2

				X4.3	Others diversity	0.896
Divers' Satisfaction	2	0.867	Reliable	Y1.1	Dive master services	0.818
				Y1.2	Comfort level of diving	0.840
Willingness to Pay (WTP)	2	0.862	Reliable	Y2.1	Divers' income	0.814
				Y2.2	Cost to pay for diving	0.814

Source: Primary Data (2019)

Profiles of Respondents

Profiling the gender of dive tourists selected as respondents shows 134 men and 64 others women (67 percent vs. 33 percent). This fact is similar to the findings of gender divers in different places. Australians who love diving are dominated by men as much as 67 percent, obtained 71 percent of divers on Perhentian Island, Malaysia, were male [17]. These findings are consistent with data from the PADI diving organization which in its annual report states that of the 900,000 numbers of PADI certified divers, over the past 20 years, 62.8 percent were male and 37.2 percent female [18].

In terms of origin, tourists who dive in Tulamben are dominated by divers from European countries such as France (19.7 percent), Germany (10.4 percent), United Kingdom (5.7 percent), and the Netherlands (5.2 percent). Other countries that also contributed significantly were Australia (7.3 percent), China (4.7 percent), as well Indonesian domestic divers (9.4 percent). Generally, the diving tourist market from European countries is quite dominant in the Tulamben as much as 65 percent, Asia 24.6 percent, America 2.6 percent and Australia and New Zealand 7.8% percent. The European market is indeed very potential for diving tourists as is the case in Australia's Great Barrier Reef destination, which ranks first in the category of foreign tourists [19].

In the perspective of the age category, diving tourists aged 21-25 years reached 25 percent, aged 26-30 years reached 24.48 percent, aged 31-35 years reached 17.71 percent, and aged 36-40 years reached 10.94 percent. The age range is dominated by the 21-40 years age which reaches 78.18 percent. In addition, divers have at least a high school education to a master level with a percentage of around 88.1 percent, even the percentage of divers who have a master education level of 33.9 percent, which shows the qualifications of diving tourists are already very adequate to master various theories about diving, as well as an understanding of conservation is excellent.

Related to the diving tourist profession that enjoys the underwater of Tulamben, some prominent professions are as professionals or managers as much as 27.6 percent, while other professions that are equitable are private sector workers (16.7 percent), business people (16.7 percent), and other sectors. These figures show that the market for diving activities is young people who are educated and successful in their careers.

The SEM's Result

Briefly, SEM is a statistical method commonly utilised in social as well tourism research to study the causal relationship among constructs. According to [20] and Tenenhaus et al. (2005), SEM is an ultimate method to study the causal relationship among latent variables or constructs, variables that can not be measured directly and is mostly measured by their indicators or manifests. Basically, SEM is composed of 2 sub-models, namely the outer and inner models. The outer model is intended to check the quality of construct measurements through its indicators, and the inner model is used to check the causality formed between constructs. Before the influence of exogenous constructs on endogenous ones is examined in the inner model, an outer model analysis must be carried out [20,21,22]. Table 2 showed the outer or measurement model of all construct in this study.

ISBN: 978-602-53420-4-2

Table 2. The Outer Model Test

Construct and Its Indicators		Loading Estimate	Standard Error	Critical Ratio	P-Value
Marine Beautiness	X1.1	0.839	0.215	6.291	0.000
	X1.2	0.628	–	–	–
Water Condition	X2.1	0.795	0.103	9.693	0.000
	X2.2	0.840	0.098	10.337	0.000
	X2.3	0.808	–	–	–
Site Access	X3.1	0.806	0.073	11.126	0.000
	X3.2	0.918	–	–	–
Underwater Diversity	X4.1	0.968	–	–	–
	X4.2	0.908	0.047	19.033	0.000
	X4.3	0.536	0.080	6.763	0.000
Divers' Satisfaction	Y1.1	0.859	–	–	–
	Y1.2	0.888	0.074	14.617	0.000
Willingness to Pay (WTP)	Y2.1	0.860	–	–	–
	Y2.2	0.826	0.118	7.594	0.000

Source: Primary Data (2019)

Table 2 shows except for X4.3, all of indicators have a loading estimate greater than 0.60 → as suggested. In addition, the critical ratio also greater than 1.65 as the lowest threshold to claim the indicator is a valid measure for its respective construct. From this finding, we eliminate the X4.3 as an indicator of underwater diversity construct.

The inner model after X4.3 is eliminated, known as the full model, is conducted by applying AMOS software from [16]. The result showed some of the goodness of fit (GoF) criteria did not demostrate the the full model is good to make inferences. Noting this situation, we follow Arbuckle's suggestion to look at the modi- fication index (MI) of the model. This index suggests which indicator must be kept in the model as well as to add or eliminate one or more path diagram among indicators in the model. After three iterations, we found the accepted model for our study is making a correlation line between some error components. The GoF of final model and the regression weight between the exogenous and the endogenous constructs is listed on Table 3.

Table 3. The Inner Model and Its GoF Criteria

Construct			Regression Weight	Standard Error	Critical Ratio	P-Value	Note
Exogenous		Endogenous					
Marine Beautiness	⇒	Divers' Satisfaction	0.062	0.237	0.261	0.794	Not Significant
Water Condition	⇒	Divers' Satisfaction	0.475	0.233	2.039	0.041	Significant
Water Condition	⇒	Marine Beautiness	0.651	0.103	6,312	0.000	Very Significant
Site Access	⇒	Divers' Satisfaction	0.290	0.185	1.567	0.117	Not Significant
Site Access	⇒	Underwater Diversity	0.821	0.073	11.250	0.000	Very Significant
Underwater Diversity	⇒	Divers' Satisfaction	0.072	0.102	0.706	0.480	Not Significant
Divers' Satisfaction	⇒	Willingness to Pay (WTP)	0.893	0.137	6.536	0.000	Very Significant

ISBN: 978-602-53420-4-2

GoF Criteria	Cut-off	Result	Note	GoF Criteria	Cut-off	Result	Note
χ^2	Small	69.892	Good	CMIN/df	≤ 2.00	1.271	Good
p-Value	> 0.05	0.085	Good	TLI	≥ 0.90	0.983	Good
RMSEA	< 0.08	0.135	Moderate	CFI	≥ 0.90	0.988	Good
GFI	≥ 0.90	0.948	Good	NFI	≥ 0.90	0.948	Good
AGFI	≥ 0.90	0.948	Good				

Source: Primary Data (2019)

Discussion

Considering the criteria commonly used in CB-SEM, it can be decided that the model is worth interpreting. In addition, of the seven causal relationships in the model, three of them have a regression coefficient that is not significant at the 5 percent test-level. These three insignificant relationships were observed in the determinants of the level of diving satisfaction, i.e. marine beautiness, site access, and underwater diversity. The only factor that is proven to have a significant effect on the satisfaction of divers is a calm and harmless water condition.

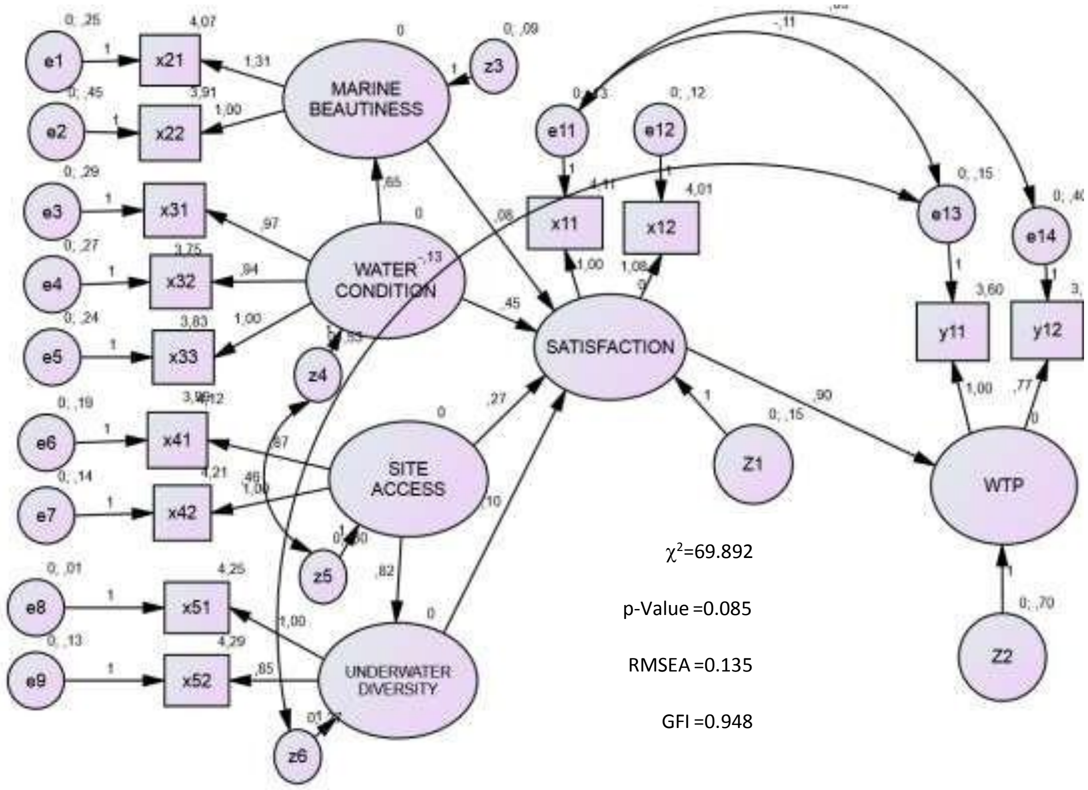


Figure.2. The Result of Structural Equation Modelling

The results of the study that found the water condition as the single most important determinant factor for the level of satisfaction of divers in Tulamben proves that diving tourists in this destination are novice divers. Safe and comfortable diving activities in Tulamben can not be separated from the coastal landscape due to the eruption of Mount Agung in 1963, so that the beach is filled with coarse sand and rocky. This rocky substrate is one of the causes of good water clarity, and the contours

ISBN: 978-602-53420-4-2

of the bathymetry of the coast increasingly sharper make the circulation of water masses relatively maintained, even though the wind and big waves. The clarity of the waters and the depth of these waters which can be reached only a few tens of meters from the beach, making this location an excellent place for beginner divers tourists to practice and do activities.

Related to the significant influence of the level of diving tourists' satisfaction with the PAPs, they considered Tulamben as a dive tourism destination should be managed and improved in quality, so that if they had to pay, the divers were willing as long as they had the opportunity to enjoy the beauty of Tulamben's underwater panorama. Satisfaction is a real cause in determining the willingness of tourists to pay. Specifically, the new findings obtained by this research using SEM are that diversity influences the willingness to pay by mediating endogenous variables of satisfaction.

The recommendations of this result are implement visitor management as like a one- gate system to entering Tulamben diving site (to change the mass tourism concept to quality tourism concept), involving the divers and the other stake holders to creating and supplying the others under water attraction, make an agreement to manage a transparent financial management and Training the DM or Dive Instructor about marine environment.

CONCLUSION

Research on perceptions, satisfaction levels, and willingness to pay from diving tourists in Tulamben, Karangasem Regency concluded as follows:

1. About two-thirds of dive tourists in Tulamben are male tourists. In addition, the divers on this beach are beginner divers belonging to the young and educated age group;
2. As a beginner diver, safety and comfort become important causes in determining the level of satisfaction. Access to dive sites, diversity of underwater panoramas, and beautiful beaches are not the dominant determining factors;
3. Tourists who are satisfied with their diving activities do not mind contributing to coral and fish protection efforts in Tulamben. Their satisfaction has a significant effect on the WTP.

REFERENCES

[1] Supriharyono. 2000. Pengelolaan ekosistem Terumbu karang. Djambatan. Jakarta.

[2] Barker., N, H, L and Roberts.,C,M., 2004. Scuba Diver Behavior and management of Diving Impacts on Coral Reefs. Biological Conservation. Elseiver. doi :10.1088/1755-1315/116/1/012097

[3] Worochananant, S., Carter., R,W., Hocking., M and Reopanichkul., P. 2008. Managing the Impact of Scuba Divers on Thailand’s Coral Reef. Journal of Sustainable tourism. Vol.16. 6 (2008). Pp 645-663.

[4] Ong, T.,F and Musa., G. 2011. Scuba Diver’s Underwater responsible behaviour: can environmental concern and divers’ attitude make a difference?. Current Issues in Tourism, 15:4, 329-351, DOI:10.1080/13683500.2011.604407.

[5] Suardana, W. 2014. Motivasi, Kepuasan, Kepercayaan, Dan Loyalitas Wisatawan Diving Di Bali. Disertasi Program Pasca Sarjana Pariwisata, Universitas Udayana

[6] Wiranatha, A. S., Suryawardani, I.G.A.O., Bendesa, I.K.G and Antara, M., 2016. Model Of Foreign Tourists’ Loyalty On Marine Tourism to Visit Bali. Interna- tional Journal Of multidisciplinary Educational Research ISSN: 2277-7881; Volume 5, Issue 3(1), March 2016.

[7] Nababan., T.S., 2008. Aplikasi Willingness To Pay Sebagai Proksi Terhadap Variabel Harga: Suatu Model Empirik Dalam Estimasi Permintaan Energi Listrik

Rumah Tangga. Jurnal Organisasi dan Manajemen, Volume 4, Nomor 2, September 2008, 73-84.

[8] Wielgus., J., Westmacott, S., K. Teleki, S. Wells dan J. West. 2000. Pengelolaan Terumbu Karang yang Telah Memutih dan Rusak Kritis. IUCN, Gland, Swiss, dan Cambridge.

[9] Airin., T and Kramer., R.A., 2002. Divers' willingness to pay to visit marine sanctuaries: an exploratory study. Ocean & Coastal Management 45 (2002) pp 171–183

[10] Papilaya.,R.L. 2018. Effect of Tourist Characteristic, Marine Tourism Demand, and Number of Visits to the Value Perceptions and Willingness to Pay to Environmental Marine Tourism in Ambon City. IOP Conf. Series: Earth and Environmental Science 116 (2018) 012097.

[11] Wiranatha., A, S., Satriawan., I.K., Antara, M.,Pujaastawa, I,B,G., Raka Dalem, A.A.G., Sudiarta, I.K., 2010. Perencanaan Pengembangan Wisata Bahari Berkelanjutan di Kawasan Nusa Penida. Lembaga Penelitian Universitas Udayana dan Conservation International. Jakarta.

[12] Tania., C. Welly, M and Mulyadi, A.H. 2011. Willingness to Pay Study, Kawasan Konservasi Perairan Nusa Penida, Kabupaten Klungkung, Bali. USAID and CTC Bali.

[13] Dwipayana, N. P., E N Kencana and Ni Ketut T. Tastrawati. 2018. Memodelkan Dampak dan Keberlanjutan Pariwisata Pesisir di Kabupaten Badung, Provinsi Bali. 2018. E- Jurnal Matematika 7(2), pp 111-121.

[14] Hair, Joseph F., Rolph E. Anderson, Ronald L. Tatham, and William C. Black. Multivariate Data Analysis with Readings. Prentice-Hall, Inc., 4th edition, 1995.

[15] Kencana, Eka N and T Manutami. 2017. Structural model to evaluate the effect of participation and satisfaction on ecotourism sustainability. Journal of Physics: Conf. Series (893) 012030. doi :10.1088/1742-6596/893/1/012030

[16] Arbuckle, James L. 2010. "IBM SPSS Amos 19: User"s Guide". Chicago: Amos Development Corporation.

[17] Salim., N, Bahauddin, A. and Mohamed, B. 2012. Influence of Recreation Specialization On Underwater Behavior: A Case Of Perhentian Island. 4th Asia-Euro Conference 2012 in Tourism, Hospitality & Gastronomy.

[18] PADI. 2017. Professional Association Diving International Worldwide Diving Certifi- cation Trend by Gender Data for 2011 to 2016. PADI Global Certification & Membership Statistics. www.padi.com.

A QUANTITAVE PRESPECTIVE OF DIVERS PERCEPTION AS INPUT FOR MANAGING TULAMBEN DIVING TOURISM DESTINATIONS IN BALI INDONESIA

I Wayan Wardita[1], Komalawati[2*]
Department of Management Universitas Dhyana Pura
komalawati@undhirabali.ac.id

ABSTRACT

Loyalty can be used as a means to lure and retain employees in an organization or company. The purpose of this study was to determine the effect of compensation and empowerment on employee loyalty through job satisfaction at Bali Palms Resort Hotel Candidasa Bali. The data analysis technique used is path analysis and Sobel analysis. The number of samples used was 93 employees, using the population method. The results of the H1 study show a value of 0.00 this value is smaller than 0.05, this means that compensation for job satisfaction influences directly. The results of the H2 study show a value of 0.00 this value is smaller than 0.05, which means that empowerment of job satisfaction has a direct and significant effect. The results of the H3 study indicate a value of 0.00 this value is smaller than 0.05, this means that compensation for employee loyalty has a direct and significant effect. The results of the H4 study indicate a value of 0.00 of this value is smaller than 0.05, this means that empowerment towards to has a direct and significant effect. The results of the H5 study show a value of 0.06 this value is smaller than 0.05, this means there is no direct and significant influence between job satisfaction on employee loyalty through job satisfaction. The results of the H6 study indicate that the value of 1.752 is smaller than 1.98, this means there is no direct and significant influence between compensation for employee loyalty. The results of the H7 study show that the value of 1,720 is smaller than 1.98, this means there is no direct and significant influence between empowerment on employee loyalty through job satisfaction.

Keywords: *Compensation, Empowerment, Job Satisfaction, Employee Loyalty*

INTRODUCTION

Each company needs resources to achieve its objectives. Human resources are the most valuable and most important asset of an organization, because the success of the organization is determined by men [1]. Human resources in a company must have competence and high performance in order to carry out its management functions.

Loyalty can be used as a means to lure and retain employees in an organization or company. In fact, to improve job loyalty to employees is not an easy thing because many factors can affect the high level of loyalty in an employee's self. Among the factors that affect the loyalty of these employees include the influence of compensation, empowerment and work satisfaction of each employee. The loyalty of every employee is required to reduce the rate of labor turnover and suppress the costs incurred to recruit new employees. Timeshare concept is the Palms Resort Candidasa Hotel’s concept, is located on the coast of Candidasa that is famous for its panoramic aspecialy views of Sunrise in the day and Sunset in the afternoon, moreover visitors can see some of boats.

Hotel Bali Palms Resort Candidasa Bali consists of 93 employees, loyalty of employees at Hotel Bali Palms Resort Candidasa Bali can be seen from obedience to the hotel rules, responsibility to the company/organization, willingness to cooperate, sense of owning, inter-personal relationships, pleasure to work. The loyalty of employees at Bali Palms Resort Candidasa can be seen from review data from TripAdvisor, as shown in Figure 1.

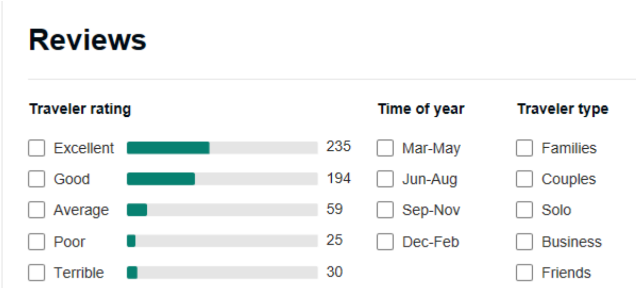


Figure 1. Rating Reviews on Trip Advisor

Table 1. Review Trip Advisor Data

No.	Name	Review
1	Rozivh	*Thye staff were really helpful.*
2	Elisabeth	*The reception staff were so very kind, and quickly settled us in a upgraded appartement.*
3	Dragonfly602015	*Every one of the resort staffare fantastic.*
4	Lemish	*The staff could not be more attentive and good mannered, as we were there over Christmast it was great credit to all.*
5	Pengilld	*All staff were were helpful an attentive.*

Figure 1 shows that the rating given by the visitors of Hotel Bali Palms Resort Candidasa Dominant is Excellent and Good. And from Table 1 shows that the service provided by the hotel staff is very good. Job satisfaction is one of the things that can affect employee loyalty. At Hotel Bali Palms Resort Candidasa Bali, the work satisfaction of its employees in this case can be seen from a good working atmosphere. And good teamwork in addressing the problem.

To keep the work satisfaction Hotel Bali Palms Resort Candidasa Bali gives appropriate compensation, timely and employee empowerment are important. Compensation provided.

Empowerment is a broader granting of authority and responsibility and opportunities to employees to develop their potential to better carry out their work. The empowerment of Hotel Bali Palms Resort Candidasa is the granting of authority and responsibility to the employees in working according to the SOP that has been set.

The problems statements in this research are as follows:

1) Is there a direct influence on compensation for work satisfaction at Hotel Bali Palms Resort Candidasa Bali?
2) Is there an immediate influence on the empowerment of work satisfaction at Hotel Hotel Bali Palms Resort Candidasa Bali?
3) Is there a direct influence on employee loyalty at Hotel Hotel Bali Palms Resort Candidasa Bali? And is there a direct influence on the compensation of employee loyalty through the satisfaction of the Hotel Hotel Bali Palms Resort Candidasa Bali?
4) Is there a direct influence on the empowerment of employee loyalty at Hotel Hotel Bali Palms Resort Candidasa Bali? And is there any direct empowerment influence on employee loyalty through work satisfaction at Hotel Hotel Bali Palms Resort Candidasa Bali?
5) Is there a direct influence of job satisfaction on employee loyalty at Hotel Hotel Bali Palms Resort Candidasa Bali?

Research objectives

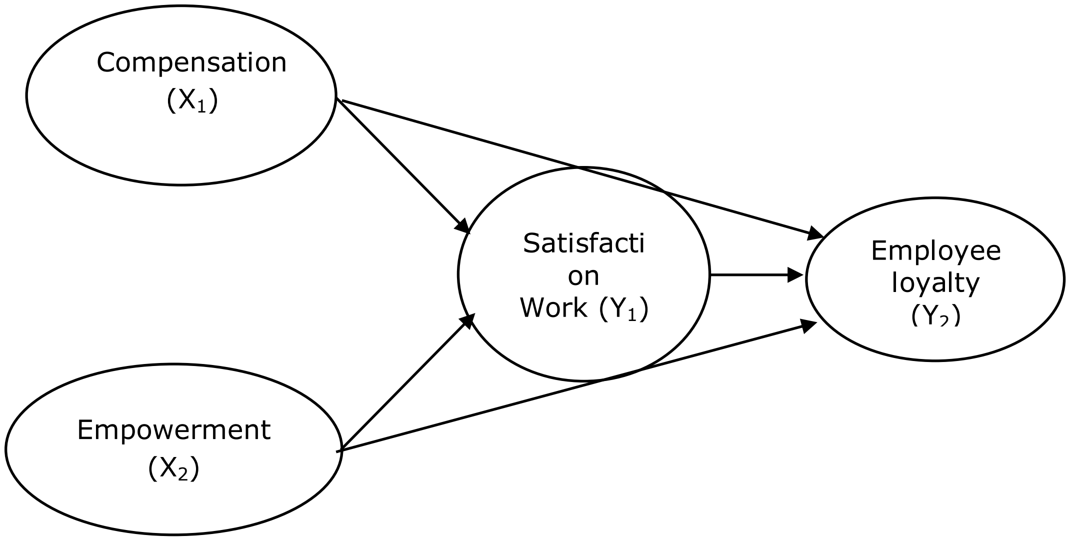
The objectives to be achieved in this research include:

1) To find out if there is an influence directly compensation for work satisfaction at Hotel Hotel Bali Palms Resort Candidasa Bali
2) To find out if there is a direct influence on the empowerment of work satisfaction at Hotel Hotel Bali Palms Resort Candidasa Bali
3) To find out if there is a direct influence on employee loyalty at Hotel Hotel Bali Palms Resort Candidasa Bali. And to find out if there is a direct influence on employee loyalty through job satisfaction at Hotel Hotel Bali Palms Resort Candidasa Bali
4) To find out if there is direct influence on employee loyalty at Hotel Hotel Bali Palms Resort Candidasa Bali. And to find out if there is a direct influence on employee loyalty through work satisfaction at Hotel Hotel Bali Palms Resort Candidasa Bali
5) To find out if there is any direct employment satisfaction to employee loyalty at Hotel Hotel Bali Palms Resort Candidasa Bali

LITERATURE REVIEW

To make it easier to understand the idea of research, authors give a picture of research presented through the framework as shown in Figure 2.

Figure 2. Conceptual framework Research



Each company needs resources to achieve its objectives. Human resources are the most valuable and most important asset of an organization, as the success of the organization is determined by its human resources [1]. Among the factors that affect the loyalty of these employees include the influence of compensation, empowerment and work satisfaction of each employee. The loyalty of every employee is indispensable to reduce the rate of labor turnover and suppress the costs incurred to recruit new employees.

Definition of Loyalty

Loyalty is reflected by the willingness of employees to keep and defend the organization inside and outside the work of the irresponsible people [2]. It is also argued that loyalty is an attitude arising as a result of desire to be faithful and devoted to the work, group, superiors, and on the place that cause a person to cause employees to sacrifice to satisfy other parties or communities [3]. Employee loyalty can be said to have loyalty to his organization, so employees feel the awareness of their obligations and use the facilities provided and the resources they have for the advancement of the organization.

Definition Job Satisfaction

Job satisfaction can be reviewed from two sides, from the employee side, job satisfaction will bring out the pleasant feeling of work, while from the company side, job satisfaction will increase productivity, improvement of attitudes and behavior of employees in providing excellent service [4]. Job satisfaction is the attitude or feeling of employees to the fun or unpleasant aspects of the work in accordance with the assessment of each worker. Job satisfaction is a set of employee feelings about the fun or absence of their work [5].

Definition of compensation

Compensation is received by employees either in the form of money or not money in return for the employee's efforts to the organization [6]. Compensation is also defined as a counter-achievement of the use of manpower or services that have been provided by the workforce [7]. Compensation is the number of packages offered by the Organization to workers in exchange for their work of use. The total compensation of all prizes is awarded to employees in exchange for the service [8]. Compensation is often also called an award and can be defined as any form of appreciation given to employees in response to the contribution they provide to the organization [9]. Compensation is all income in the form of money, direct or indirect goods received by the employee in return or service provided to the company [10].

Definition of Empowerment

Empowerment is sharing of power and authority with suborninates to increase their confidence and effectiveness [11]. Empowerment also gives employees the responsibility and authority to make decisions about all aspects of product development or customer service [12]. Empowering is granting permission to employees to make decisions to compile timely workloads [13].

Empowerment is required of employee involvement in decision making so that employees are more innovating in doing their job and able to make decisions independently. Employee empowerment is an employee technique that engages in their work thinking the inclusion process [14]. Empowerment encourages workers to become innovators and managers of their own work, and it makes it difficult for them in their work in a way that gives them more control and autonomous decision-making skills. In this study using two variables indipendent X1 compensation, X2 empowerment, Y1 job satisfaction, and Y2 loyalty, here the following variables as well as each variable in the indicators and indicators captions.

Table 2. Variables and Indicators

Variabel	Code	Indicators	Variable Indicator Captions
Compensation	$X_{1.1}$	Wages and salaries	The employee receives wages and salary on time.
Simmamora (2008:445)	$X_{1.2}$	Incentives	Employees receive appropriate incentives.
	$X_{1.3}$	Allowances	Employee give allowences such as assurance
	$X_{1.4}$	Facilities	Employees can get decent facilities.
Empowerment	$X_{2.1}$	Meaning	Employee has a sense of purpose or a personal relationship about his work.
Kahn (Arifin, et,al 2014)	$X_{2.2}$	Competence	Employees have the skills and

			abilities necessary to do their job well
	$X_{2.3}$	Self-determination	Employees have a sense of freedom about how individuals do their work within the company;
	$X_{2.4}$	Impact	Employees believe in being able to influence the organizational system in the workplace.
	$X_{2.5}$	Communication	Employees are free to express their opinions
Job Satisfaction Hasibuan (Putra, 2012)	$Y_{1.1}$	Loyalty	The willingness of employees to safeguard and defend the organization in and out of the work of irresponsible people.
	$Y_{1.2}$	Ability	Employees are able to work both based on quality and quantity values that can result from their job descriptions.
	$Y_{1.3}$	Honesty	Employees are honest in carrying out their duties, fulfilling covenants both for themselves and against others.
	$Y_{1.4}$	Creativity	Employees are able to develop their creativity to finish their work, so they will be able to work better.
	$Y_{1.5}$	Leadership	Employees have the ability to lead, have a strong, respected, authoritative, and can motivate others to work effectively.
	$Y_{1.6}$	Salary Level	The number of salaries that the company offers to employees according to what the employee provides to the company
	$Y_{1.7}$	Indirect compensation	Employees feel indirect compensation such as raising the spirit and employee productivity awards.
	$Y_{1.8}$	Working environment	Employees feel a healthy and good work environment.
Loyaly	$Y_{2.1}$	Obey the Rules	Employees obey the rules.
	$Y_{2.2}$	Responsibilities to the company/ organization	Employees are responsible for the work given.
Siswanto (Soegandhi et,al. 2013)	$Y_{2.3}$	Willingness to cooperate.	Employees are able to cooperate in team
	$Y_{2.4}$	Sense of having	Employees have a sense of owning against the company.
	$Y_{2.5}$	Inter-personal relationships	Employees can socialize
	$Y_{2.6}$	Passion for work	The employee enjoyed his work and worked happily. (Enjoy)

Research Hypotheses

H1: There is suspected direct influence between compensation to work satisfaction at Hotel Bali Palms Resort Candidasa Bali.

H2: There is suspected direct influence between empowering to work satisfaction at Hotel Bali Palms Resort Candidasa Bali.

H3: There is suspected direct influence between compensation to employee loyalty at Hotel Bali Palms Resort Candidasa Bali. And there is suspected influence directly between compensation towards employee loyalty through job satisfaction at Hotel Hotel Bali Palms Resort Candidasa Bali.

H4: Alleged influence directly between empowerment of employee loyalty at Hotel Bali Palms Resort Candidasa Bali and, suspected of direct influence between empowerment of employee loyalty through work satisfaction in Hotel Hotel Bali Palms Resort Candidasa Bali.

H5: There is suspected immediate influence between job satisfaction on employee loyalty Hotel Bali Palms Resort Candidasa Bali.

METHODS

Data Collection Techniques

1. Questionnaire: questionaiers as a data collection tool in the non-test assessment, in the form of a series submitted to the respondent (students, parents or community).
2. Interview: Interview technique, is a meeting of two people to exchange information and ideas through the question and answer, so that it can be contracted to the meaning of a particular topic [15].
3. Documentation. The document is an event record that has elapsed [15]. Documents can be in the form of writings, drawings, or monumental works of a person. Documents are written in the form of a diary, History of Life (Life Histories), stories, biographies, rules, policies. Documents that form images such as photographs, live images, sketches and others. Documents are shaped like artwork, which can be pictures, sculptures, films and others. Document studies complement observation and interview methods in qualitative research.

Sample Determination Method

Number of employees at Hotel Bali Palms Resort Candidasa Bali as many as 93 employees, so the population samples are used.

FINDINGS AND DISCUSSIONS

Descriptive Research Results

From the class interval value, the criteria are obtained with the following categories of assessments [15]:

1.00 – 1.80 = very good
1.81 – 2.60 = Not good
2.61 – 3.40 = good enough
3.41 – 4.20 = good
4.21 – 5.00 = very good

Compensation Variable

The following will be given an overview of the variable descriptions of the compensation variable in accordance with the respondent's opinion as seen in table 3.

Table 3. Descriptive Research Results Based on Variables

Variable Compensation

No	Statement	STS	TS	N	S	SS	Average
1	The employee receives wages and salary on time.	0	0	7	63	23	4.17
2	Employees receive appropriate incentives.	0	1	6	60	26	4.19
3	Employees receive insurance benefits.	0	0	3	60	30	4.29
4	Employees can get decent facilities.	0	0	6	71	16	4.11

Description of Empowerment Variables

No	Statement	STS	TS	N	S	SS	Average
1	An employee has a sense of purpose or a personal relationship about his work;			8	60	21	4.05
2	Employees have the skills and abilities necessary to do their job well;		2	7	60	24	4.14
3	Employees have a sense of freedom about how individuals do their work within the company;		2	7	61	23	4.13
4	Employee has their way how to work		2	7	61	23	4.13
5	Employees believe to be able to influence the organizational system in the workplace			8	61	24	4.17
6	Employees are free to express their opinions			7	60	26	4.20

Description of Work Satisfaction Variables

No	Statement	STS	TS	N	S	SS	Average
1	The willingness of employees to safeguard and defend the organization in and out of the work of irresponsible people.		3	6	58	26	4.15
2	Employees are able to work both based on quality and quantity values that can result from their job descriptions.		3	8	64	18	4.04
3	Employees are honest in carrying out their duties, fulfilling covenants both for themselves and against others.		2	5	60	26	4.18
4	Employees are able to develop their creativity to finish their work, so they will be able to work better.			6	67	20	4.15
5	Employees have the ability to lead, have a strong, respected, authoritative, and can motivate others to work effectively.			9	68	16	4.08
6	The number of salaries that the company offers to employees according to what the employee gives to the company.			6	57	30	4.26
7	Employees feel indirect compensation such as raising the spirit and employee productivity awards.			6	62	25	4.20
8	Employees feel a healthy and good work environment.			9	66	18	4.10

Description of Work Loyalty Variables

No	Statement	STS	TS	N	S	SS	Average
1	Employees obey the rules.			5	60	28	4.25
2	Employees are responsible for the work given.			4	65	24	4.22
3	Employees are able to cooperate in team			3	66	24	4.23
4	Employees have a sense of owning against the company			4	68	21	4.18
5	Employees can socialize			4	70	19	4.16
6	The employee enjoyed his work and worked happily. (Enjoy)			6	63	24	4.19

ISBN: 978-602-53420-4-2

Path Analysis Results

Table 4. Coefficients Structure I

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	-.571	1.685		-.339	.736		
	Compensation	.369	.123	.185	3.008	.004	.812	1.231
	Empowerment	1.274	.100		12.745	.000	.812	1.231

A. Dependent variables: Job satisfaction

Equation of Structure I

Y1 $= \beta_1 X_1 + \beta_2 X_2 + e_1$

Y1 $= 0.369\ X_1 + 1.274\ X_2 + \varepsilon_1$

$\varepsilon_1\ (error_1) = \sqrt{1 - R^2}$

$= \sqrt{1 - 0{,}771}$

$= 0{,}479$

Thus Model I line diagram depicted in Figure 3 is obtained.

Figure 3. Model Line Diagram I

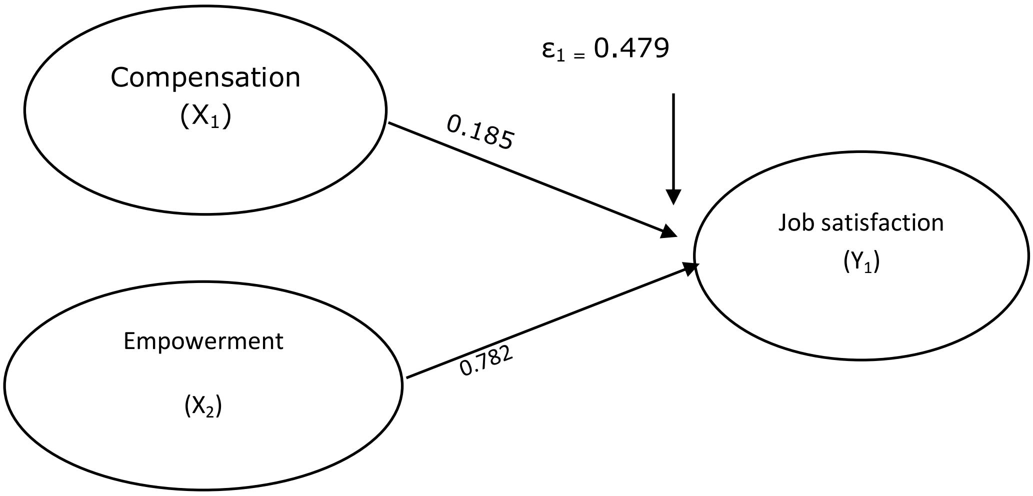


Table 5. Table *Coefficients* Structure II

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	4.365	1.188		3.675	.000		
	Compensation	.495	.106	.418	4.656	.000	.560	1.787
	Empowerment	.311	.075	.368	4.152	.000	.576	1.737
	Job satisfaction	.121	.064	.212	1.910	.060	.368	2.716

B. Dependent variables: Employee loyalty

Equation of Structure 2

Y2 $= \beta_1 X_1 + \beta_2 X_2 + \beta_3 Y1 + e_2$

Y2 $= 0.495\ X_1 + 0.311\ X_2 + 0.121\ Y1 + \varepsilon_2$

$e_2\ (error2) = \sqrt{1 - R^2}$

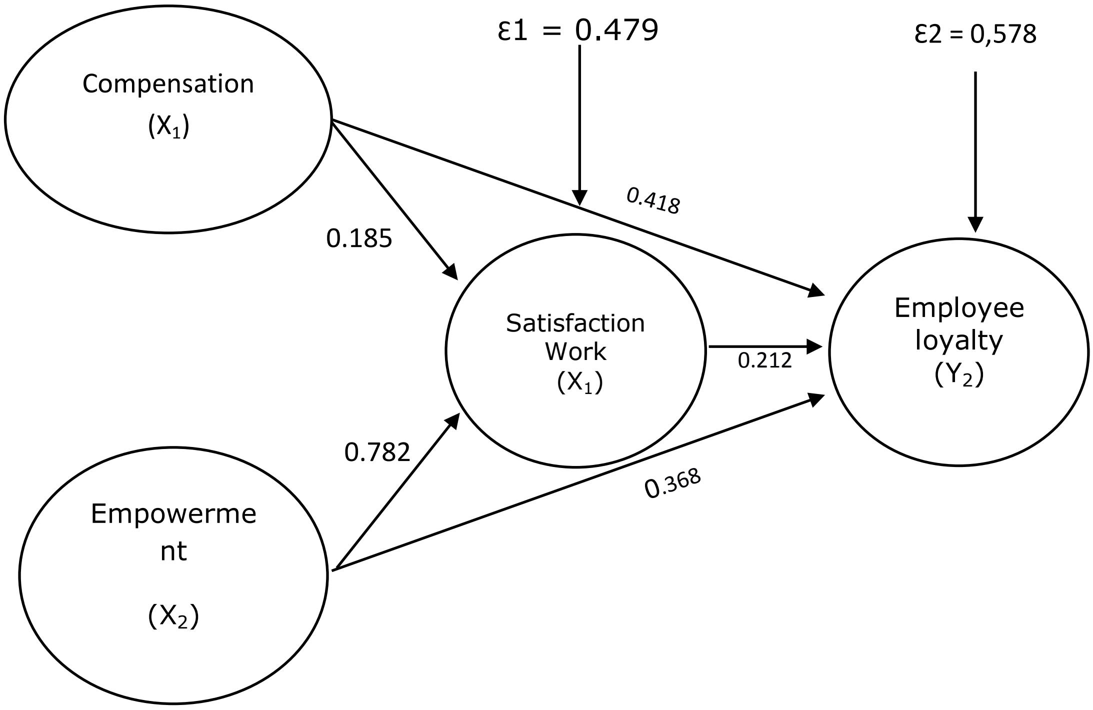
$= \sqrt{1 - 0{,}666}$

$= 0{,}578$

ISBN: 978-602-53420-4-2

Thus Model II line diagram depicted in Figure 4 is obtained.

Figure 4. Model II Line Diagram



Based on the results of the analysis ε1 and ε2 it can be calculated coefficient of total determination as follows:

$$R^2_m = 1 - (\varepsilon_1)^2 (\varepsilon_2)^2 = 1 - (0{,}479)^2 (0{,}578)^2$$
$$= 1 - (0{,}229)\ (0{,}666)$$
$$= 0.847$$

The total determination value of 0847 has the meaning that the 84.7 percent of employee loyalty variables are influenced by compensation, empowerment and job satisfaction, while the remainder of 15.3 percent is explained by other factors not included into a model or research.

Sobel Test Results

To test a variable mediator mediate the relationship between variables tied to a free variable can be done with the technique of Sobel analysis using an online calculator,

1. Sobel Test effect of compensation (X1) through job satisfaction (Y1) on employee loyalty (Y2) earned result z = 1,752. It is known that Z counts < 1.98 Then there is no significant influence between compensation through job satisfaction on employee loyalty.
2. Empowerment (X2) through job satisfaction (Y1) towards employee loyalty (Y2) earned results z = 1.720. Note that it is known that Z counts < 1.98 Then there is no significant influence between empowerment through job satisfaction on employee loyalty.

CONCLUSION

Based on the results of analysis and discussion, several conclusions can be taken:

1) There is a direct and significant influence between compensation to job satisfaction. The results of the study on table Coefficients showed that the significance value of

0.000 This value is smaller than 0.05, then the conclusion is H0 rejected and H1 accepted.

2) Based on the results of analysis and discussion, the conclusion is expressed:There is a direct and significant influence between empowerment of job satisfaction. The results of the study on table Coefficients showed that the significance value of 0.000 This value is smaller than 0.05, then the conclusion is H0 rejected and H2 received.
3) There is a direct and significant influence between the compensation of employee loyalty. The results of the study on table Coefficients showed that the significance value of 0.000 This value is smaller than 0.05, then the conclusion is H0 rejected and H3 is acceptable. And there is no direct and significant influence between compensation towards employee loyalty through job satisfaction. Results of research on Sobel test showed that Bilai significance Z count 1,752 < 1.98 and direct influence compensation against employee loyalty greater than indirect influence, then the conclusion H0 received and H6 rejected.
4) There is a direct and significant influence between the empowerment of employee loyalty. The results of the study on table Coefficients showed that the significance value of 0.000 This value is smaller than 0.05, then the conclusion is H0 rejected and H4 accepted. And there is no direct and significant influence between empowerment towards employee loyalty through job satisfaction. Results of research on Sobel test showed that Bilai significance Z count 1,720 < 1.98 and Direct influence empowerment of employee loyalty greater than indirect influence, then the conclusion is H0 accepted and H7 rejected.
5) There is no direct and significant influence between the job satisfaction of employee loyalty. The results of the study on table Coefficients showed that the significance value of 0.060 this value is greater than 0.05, then the conclusion is H0 received and H5 rejected.

Based on the results of analysis and discussion, the suggestions are:

1) Based on the results of the compensation variable study, obtained the lowest rating on the "employees are getting decent facilities" indicator. With a value of 4.11. From this, the management of the hotel is expected to provide adequate facilities for employees such as canteen or catering facility to improve the comfort of working employees.
2) Based on the results of the empowerment research, obtained the lowest rating on the indicator "employees are free to convey their opinions". Therefore, the hotel management is expected to give employees the opportunity to be more open in presenting their opinions or holding meetings and inviting representatives of each department to make meeting decisions acceptable to everyone.
3) Based on the research results of the work satisfaction variable, obtained the lowest rating on the indicator "employees are able to work both based on quality value and quantity that can result from the job description". Therefore, the hotel management is expected to create an optimal division of tasks for employees so that they can improve their performance for the company.
4) Based on the results of the employee variable study, obtained the lowest rating on the "Employees can socialize" indicator. Therefore, the hotel management is expected to add an activity that can strengthen the sense of socialization between employees or to conduct outhing activities more than once during the year and joint activities (Gathering) to improve Togetherness.

REFERENCES

[1] Ardana, IK. 2012. *Manajemen Sumber Daya Manusia*. Yogyakarta: Graha ilmu.
[2] Hasibuan, M. 2003. Manajemen Sumber Daya Manusia. Jakarta : Bumi Aksara. Imam, Abeer., F. Tehseen Shah, and Aiman Raza. 2014. "*Mediating Role of Job Stress Between Workplace Discrimination (Gender DiscriminationGlass Ceiling)*

and Employee Attitudinal Outcomes(Job Satisfaction and Motivation) in Banking Sector of Pakistan". Middle-East Journal of Scientific Research 19 (3): 401-411.

[3] Jusuf, Husain. 2010. *Tingkatkan Loyalitas Guna Peningkatan Prestasi Kerja dan Karir.*

[4] Badriyah, M. (2015). Manajemen Sumber Daya Manusia, Cetakan 1. Bandung : CV Pustaka Setia.

[4] Suwatno. & Priansa, D. 2011. Manajemen SDM dalam organisasi Publik dan Bisnis. Bandung: Alfabeta.

[5] Alfian Ghozali, 2012, *Pengaruh Kepemimpinan Terhadap Kepuasan Kerja Dan Produktivitas Kerja Karyawan Pada PT. TASPEN (Persero) Cabang Yogyakarta*, Jurnal Ilmu Manajemen, http://eprints.uny.ac.id (diakse pada tanggal 28 Mei 2018).

[6] Gaol, CHR. Jimmy L, 2014. A to Z *Human Capital* (Manajemen Sumber Daya Manusia) Konsep, Teori, dan Pengembangan dalam Konteks Organisasi Publik dan Bisnis, PT. Gramedia Widiasarana, Jakarta.

[7] Wibowo. 2016. Manajemen Kinerja. Jakarta : PT. Rajagrafindo Persada.

[8] Mondy, R. Wayne dan Judy Bandy Mondy. *Human Resource Management. Global Edition.London*: Pearson Education Limited, 2014.

[9] Panggabean, Mutiara. 2004 *Manajemen Sumber Daya Manusia*. Bogor: Ghalia Indonesia.

[10] Hasibuan, Malayu. 2011. *Manajemen Sumber Daya Manusia Edisi Revisi.* Jakarta : Bumi Aksara.

[11] Ivancevich, John M., *Robert Konopaske dan Michael T. Matteson, Organization Behavior & Management. Tenth Edition. New York: McGraw-Hill International Edition*, 2014.

[12] Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2016). *Fundamentals of Human Resource Management.*

[13] Gibson, M. 2008. *Manajemen Sumber Daya Manusia*. Cetakan ke dua. Jakarta: Erlangga.

[14] Bohlander, W. George, Scott A. Snell, *Principles of Human Resource Management*. 16th edition. Canada: Nelson Education, 2013.

[15] Sugiyono. 2012. Metode Penelitian Bisnis. Bandung: Alfabeta.

THE DESIGN OF INTEROPERABILITY MEDICAL RECORD INFORMATION SYSTEM AS PART OF HOSPITAL ADDITIONAL SERVICE

Kadek Ayu Cintiya Marditayanti[1], Gerson Feoh[2*], Bambang Hadi Kartiko[3]
[1,2,3]Universitas Dhyana Pura
*gerson.feoh@undhirabali.ac.id

ABSTRACT

This study aims to design an interoperability medical record information system between hospitals in Bali and the police, the insurance party, and the health department about the exchanging information of visum et repertum, medical resume, hospital services indicator report, emergency visits report, and mouth and dental hygiene activity report. The hospital faces several problems including the process of exchanging information between hospital and outside party that need data related to medical record such as insurance party or police where almost in every hospital in Bali, has not been computerized yet. This research took case study at BRSUD Tabanan. The paper discusses the interoperability system designed using system development life cycle (SDLC) with waterfall approach. The purpose and benefits of designing this information system are the design of interoperability medical record information system as part of hospital additional service. With the development of interoperability of medical records into this information system, it can help the police, the insurance party, and the health department easier to get medical information from the hospital in Bali. The result of this study are the design of interoperability medical record information system with the police about exchanging information of visum et repertum, with the insurance party about exchanging information of medical resume, and with the health department about exchanging information of hospital services indicator report, emergency visits report, and mouth and dental hygiene activity report as part of hospital additional service.

***Keywords**: Interoperability Medical Record, Health Insurance, Police, Health Department, SDLC*

INTRODUCTION

Interoperability can be interpreted as a system characteristic that has the ability to communicate and cooperate with other systems without any restrictions on information access [1]. The interoperability term usually used in information technology to define data exchange services and information between system having difference technically on both the operating system used, a programming language and technology database [2]. Interoperability system was needed to the process of increasing hospital care because it can ease the process of exchange of information between hospitals with the police, the health department and the insurance party. Interoperability service used to fasten process of shipping and acceptance of data patients. In this research, interoperability system used by police, health department and insurance party.

The process of exchanging information between the hospital with police, insurance party, and the health department, this moment in almost every hospital in Bali was only are recorded in the expedition without include identity detailed patients and identity of the applicant namely insurance or police, this caused data patients and the applicant medical information isn't completely noted. The exchange of information from the hospital to the insurance party or police at the moment is not computerized the insurance party or the police come to the hospital by bringing a demand, after that was given a receipt and then noted in the book the registration request, after that medical record searched and conducted according to patient identity, next medical records is borrowed in the medical records room and medical certificate is made, after it finished, and then the doctor signs and the medical record officer calls the insurance party or the police to take out the medical certificates at the hospital. Interoperability design information system in the hospital intended to ease exchange of information to insurance party, police, and the health department need information concerning certificates and medical reports from the hospital.

The interoperability medical record information system is using Structure Query Language (MySQL) database structure with Hyper Text Markup Language (HTML), Hypertext Preprocessor (PHP), Cascading Style Sheets (CSS), Bootstrap and JavaScript programming language. Medical record officers input the medical certificates data and the reports that needed by the health department in the system, and then the data is processed on the system and the data is protected by username and password before the outside party can access the medical record information. Only the police, the insurance party, and the health department who already have a username and password who can submit the request letter to the hospital. From this interoperability medical record, is expected to be a part in supplementary services, hospital in Bali especially on the discharge medical information.

METHODS

Conceptual Framework

Problem found in almost every hospital in Bali is in releasing medical information, those are the medical certificate data is not computerized yet, the service process need a long time because the officers are still have to come to the hospital to take out the finished medical certificate and the medicl certificate data proses pelayanan yang memerlukan waktu lama karena petugas masih harus datang ke rumah sakit untuk mengambil surat keterangan medis yang sudah selesai, dan is in the expedition is not detailed and systematic. In this research, the author is using system development life cycle (SDLC) with waterfall design to produce the web-design of interoperability medical record information system. Waterfall Approach [3] is used extensively in system development, the steps consisting of:

1. Requirement Gathering and analysis, collecting needs to complete and then analyzed and defined needs to be protected by programs to be built. This phase is to be able to get a complete result.
2. System Design, design that worked after the needs completely gather.
3. Implementation, program design is translated to codes using the right programming language. The program built directly tested both in a unit.
4. Integration and Testing, the union of program units then tested as a whole (system testing).
5. Deployment of system, is operates on its turf repairs and maintenance, like compliance or adapt to change because the whole situation.
6. Maintenance, is the maintenance system process that has been built.

In this system, input that needed is medical resume data are processed and summarized to be medical resume report, visum et repertum data are processed and summarized to be visum et repertum report, indicator of hospital services data are processed and summarized to be indicator of hospital services report, emergency visits data are processed and summarized to be emergency visits report, and mouth and dental hygiene activity data are processed and summarized to be mouth and dental hygiene activity report. After that, the result is a interoperability medical record information system that hoped to make the exchange of information can be faster, upgrading public service quality, resource efficiency and costs, and providing information is stored. The conceptual framework in this study can be seen in Figure 1.

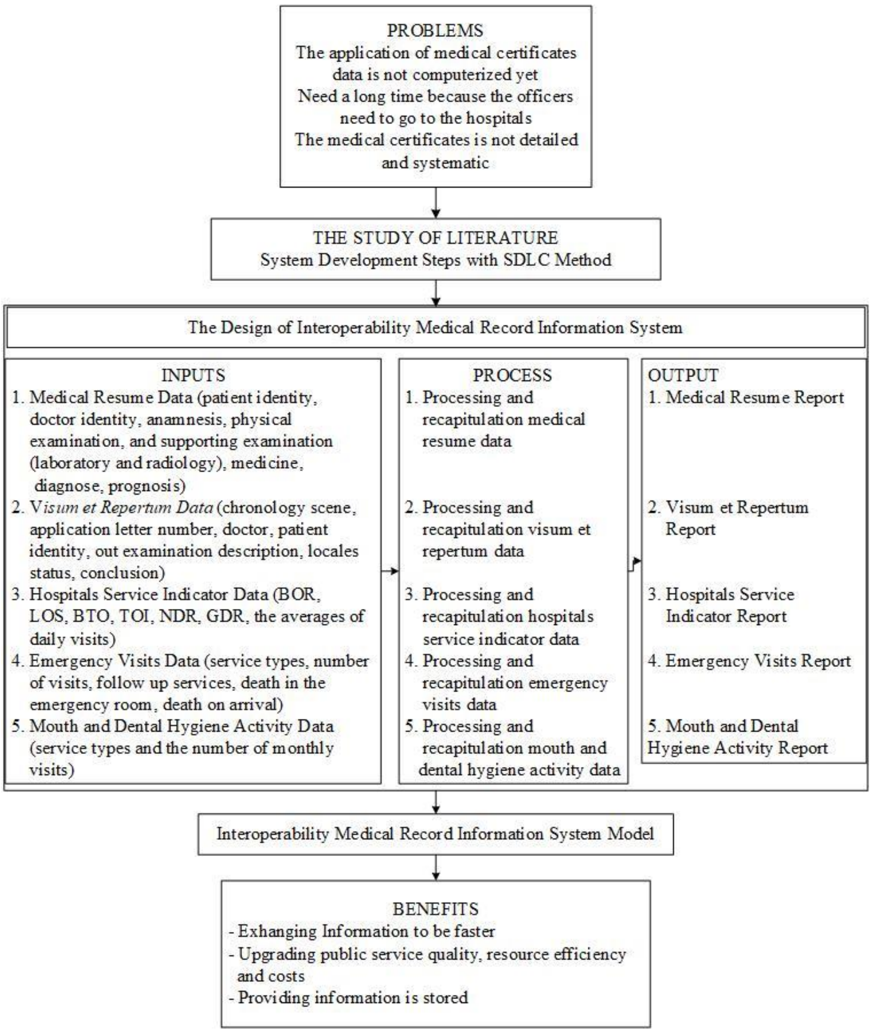


Figure 1. Conceptual Framework

Usability Instrument

Intruments to test usability aspects is using USE Questionnaire (*Usefulness, Satisfaction, Ease of use*). This test is a checklist table that is filled directly by users after using the design of interoperability medical record information system in the hospitals. The questionnaire is consisting of a number of questions that is divided into 4 those are *usefulness*, *ease of use*, *ease of learning*, and *satisfaction*. Likert Scale is used in this study. The choices of answer on the questionnaire are as follows:

1. Strongly Agree (SS) = is worth 5 points
2. Agree (S) = is worth 4 points
3. Hesitated (RG) = is worth 3 points
4. Disagree (TS) = is worth 2 points
5. Strongly Disgaree (SS) = is worth 1 point

After get the result in the form of calculation the percentage the score is compared with the criteria for interpretation of the score are:

1. 0% - 20% = Inadequate / Low
2. 21% - 40% = Less / Low
3. 41% - 60% = Enough
4. 61% - 80% = Good / High
5. 81% - 100% = Very Good / High

Usability aspects said to be better if the result shows a high percentage[4]. USE Questionnaire has 30 questions. Instrument table of USE Questionnaire can be seen on Table 1.

Table 1. Use Questionnaire

No	Instrument	STS	TS	RG	S	SS
Usefulness						
1.	It helps me be more effective					
2.	It helps me be more productive					
3.	It is useful					
4.	It gives me more control over the activities in my life					
5.	It makes the things I want to accomplish easier to get done					
6.	It saves my time when I use it					
7.	It meets my needs					
8.	It does everything I would expect it to do					
Easy of Use						
9.	It is easy to use					
10.	It is simple to use					
11.	It is user friendly					
12.	It requires the fewest steps possible to accomplish what I want to do with it					
13.	It is flexible					
14.	Using it is effortless					
15.	I can use it without written instructions					
16.	I don't notice any inconsistencies as I use it					
17.	Both occasional and regular users would like it					
18.	I can recover from mistakes quickly and easily					
19.	I can use it successfully every time					
Easy of Learning						
20.	I learned to use it quickly					
21.	I easily remember how to use it					
22.	It is easy to learn to use it					
23.	I quickly became skillful with it					
Satisfaction						
24.	I am satisfied with it					
25.	I would recommend it to a friend					
26.	It is fun to use					
27.	It works the way I want it to work					
28.	It is wonderful					
29.	I feel I need to have it					
30.	It is pleasant to use					

FINDINGS AND DISCUSSIONS

According to the methods that is used, that is using System Development Life Cycle (SDLC), the result is the design of interoperability medical record information system by put the system to be ready to operate by the users. Login page view in this system in a figure 2 and display the main menu in Figure 3.

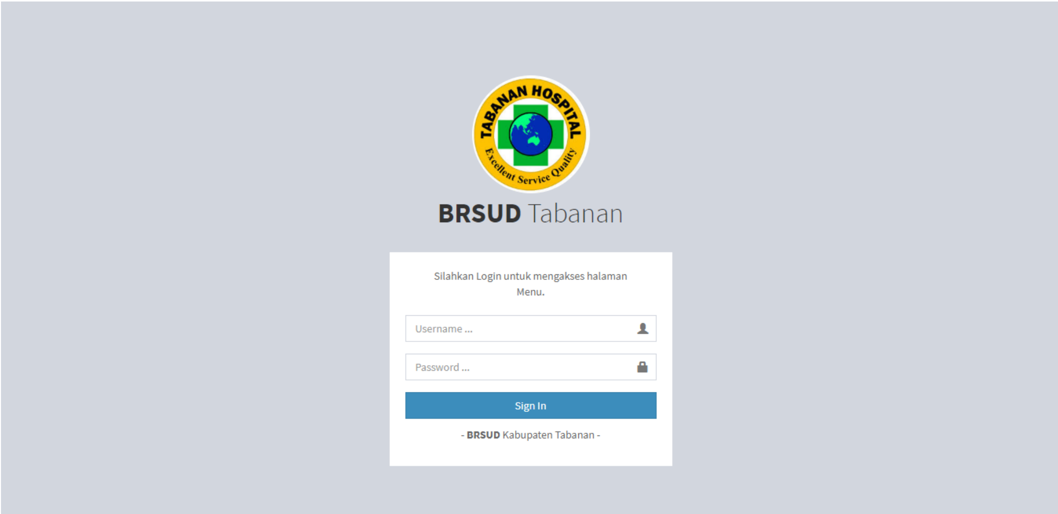


Figure 2. Login Page View

Figure 3. Home Page View

Then the author does the black box testing [5] to know the functions, inputs, and outputs from the software is compatible to the specifications required. In this study, the login page, user home page, admin home page, application letter page, application letter verifying page, visum et repertum page, medical resume page, hospital services indicator page, emergency visits page, and mouth and dental hygiene activity page are tested as a whole in accordance with the results desired by the author.

CONCLUSION

The result of this study are the design of interoperability medical record information system with the police about exchanging information of visum et repertum, with the insurance party about exchanging information of medical resume, and with the health department about exchanging information of hospital services indicator report, emergency visits report, and mouth and dental hygiene activity report as part of hospital additional service.

REFERENCES

[1] Bannister, F and Connoly, R. 2014. "ICT, Public Values and Transformative Goverment: A Framework and Programme For Research," *Goverment Information Quarterly*, vol. 31, pp. 119-128.

[2] N. C. O. I. Consortium, "What is Interoperability?," Network Centric Operations Industry Consortium, 2015. Viewed 2 February 2019. <https://www.ncoic.org/what-is-interoperability>.
[3] Murtopo, A and Angesti D. 2017. “Sistem Informasi Pelayanan Tagihan Rekening Dan Pengaduan Pelanggan Berbasis Sms Gateway Di PDAM Kota Tegal,” Jurnal SIMETRIS. Vol. 8, pp. 457-468.
[4] Riduwan. 2013. Skala Pengukuran Variabel-variabel Penelitian. Bandung: Alfabeta.
[5] Pressman, Roger S. 2001. Software Engineering : A Practioners Approach Fifth Edition. McGraw Hill. United States Of America.

ISBN: 978-602-53420-4-2

SPATIAL ANALYSIS OF CASES OF HIV/AIDS BALI IN THE YEAR 1987 - 2018

Nyoman Ngurah Adisanjaya[1], Ni Kadek Dwipayani Lestari[2]
[1,2]Universitas Dhyana Pura
adisanjaya@undhirabali.ac.id

ABSTRACT

Based on data from the Bali Provincial Health Office in 2019 shows that people with cumulative HIV/AIDS is likely to increase in every year, with a total of 7,107 cases. This requires the handling of related parties to take steps to prevent that this case does not continue to rise. One effort to map the incidence of HIV/AIDS in Bali, the risk factors that influence and that data can be displayed using Geographic Information System (GIS). From this background, further research is needed on the spatial analysis of cases of HIV/AIDS in Bali using GIS. The method of research used descriptive method with the research subjects across the case of HIV/AIDS in Bali in 1987 - 2018. The data were collected using observation and documentation. Analysis of the potential distribution data using clustering techniques and methods of regression and mapping the spread of cases using spatial analysis with ArcView 3.3 software. Results showed the high potential areas Denpasar spread of HIV/AIDS, followed Badung and Jembrana. Based on the age group, the most vulnerable are aged 30-39 years were the highest spread through heterosexual amounted to 73.25%. In conclusion the spread of cases in Denpasar supreme because some districts are Hot Spots such as South Denpasar in Sanur Danau Tempe, East Denpasar in Pasiran and Padang Galak as well as a significant link HIV/AIDS with key populations that support distribution with a significant value (Sig) < 0:05.

***Keywords**: SIG, Clustering, Regression, HIV/AIDS, Spatial Analysis*

INTRODUCTION

Human Immunodeficiency Virus (HIV) is a virus that spreads through certain body fluids that attacks the immune system, particularly the CD-4 cells, or often called T-cells In the development of this virus can destroy immune cells in the human body so that the body will experience health problems, such as body unable to fight off infection from diseases that attack it. HIV can’t be cured and until now some experts are still doing research to find drugs that can deal with this virus. In contrast to HIV, AIDS, or Acquired Immune Deficiency Syndrome is a symptom of a disease caused by the decline in immunity caused by infection with HIV that infect humans. This will certainly result in decreased immunity then that person is so very susceptible to various infections and can be fatal.

Bali is an area that became the center of world tourism. Not infrequently Bali used as a place for a vacation by tourists both domestic and foreign. Therefore, some positive and negative effects arise in people's lives in Bali, especially in the health field. Based on data from the Bali Provincial Health Office in 2019 obtained data on the spread of HIV/AIDS each year has increased significantly. With the total number of cases from 1987 to 2018 reached 7,107 cases. This of course requires the attention of the parties concerned in order to take steps to prevent early as possible.

One effort to do that is by mapping the location of which has a high spread potential, assessing factors that cause the spread, makes a database of cases that can be connected with all the relevant agencies such as the health service. It is expected to make particular information about HIV/AIDS into a door or a single source so that it becomes more effective and efficient. One method used is a Geographic Information

System (GIS), this system combines elements of technology, computerization, hardware, software, data-based spatial mapping (geography).

Thus from the above background, further research is needed to analyze the spatial mapping of HIV/AIDS in Bali using GIS.

METHODS

Data Research

The data in this study were divided into two parts:

1. Spatial Data
   a. Map of Bali Administration from the map Spatial Plan (RTRW) in 2011-2031 from the Regional Development Planning Agency (BAPPEDA) of Bali
   b. Coordinate data Hot Spot in Bali, as a potential location points the location of the spread of HIV/AIDS were analyzed kartometrik (spatial) using Google Earth Pro.
2. Non-Spatial Data
   a. Data HIV/AIDS cases in 1987 - 2018 were obtained from the BPS Bali through the data in Figures 2019 Bali Province.
   b. Data Re-estimation of the key population of HIV/AIDS cases in 2014 Bali Province

Research Support Tool

The device used in this research are as follows:

1. Hardware and specifications used:
   a. ASUS laptop x200ca
   b. OS Windows 8.1 Pro
   c. Core Intel Celeron Processor 1007U CPU @ 1.5 GHz
   d. 4:00 GB RAM
   e. 500 GB hard drive
2. Software used:
   a. ArcView GIS 3.3
   b. SPSS 17.0
   c. Microsoft Excel 2013
   d. Microsoft Word 2013
   e. Microsoft Visio 2007

Implementation Research

As seen in Figure 1, flowchart study consists of several stages including the preparation stage, the stage of data collection, data processing stage and the stage of conclusion. The explanation is the following stages:

1. Data Collection

Bali provincial administration map data containing zoning districts, the boundaries, the location of the road, the name of the city, and others that will be obtained from BAPPEDA this map will be used to analyze the spatial SCARA using GIS. While data of cases of HIV/AIDS in Bali consisting of new cases and cases accumulated from years 1987 - 2018 are analyzed cases districts, area, population, gender, age of affected cases, the causes and the important things more supported Data analysis of cases of HIV/AIDS. While the 2014 population data key linkages analyzed using SPSS regression method, data such as the location of the area of spatial nature, potential locations for distribution of cases will be searched for coordinates using of Google Earth and the results of the coordinates are stored in Microsoft Excel for use in research support.

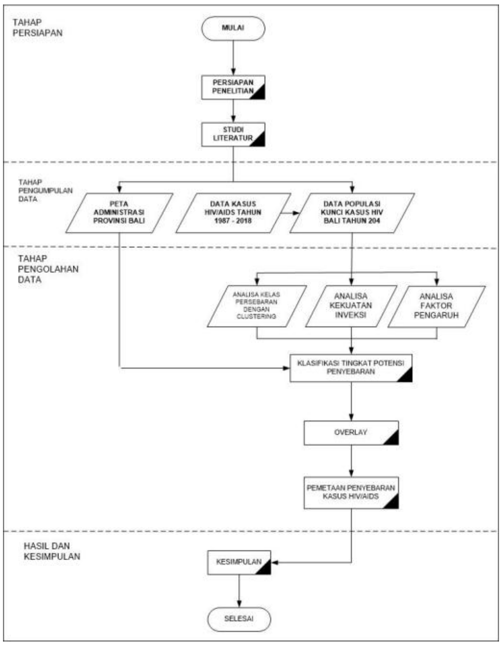


Figure 1. Flow Research

2. Data Analysis

After obtaining the necessary data followed by data analysis. The stages of the process of data analysis are as follows:

a. Mapping

Stages of mapping the spread of HIV/AIDS cases carried out after obtaining previously analyzed data with the help of ArcView 3.3 software. For factors that need to be assessed and deemed to affect the vulnerability of the potential spread of case analysis and calculation using Bivariate analysis (Regression). The factors that are considered to have a relationship, especially in the districts of the highest HIV/AIDS cases it is the data from key populations. These data will be analyzed statistically and the results are classified with the administrative map, then the results of analysis used as inputs in support overview map creation potential spread of HIV/AIDS region or districts in Bali.

b. Clustering Analysis of Potential Areas Distribution

After the process of making a map, map results are then analyzed to assess the level of potential vulnerability classification spread of HIV/AIDS cases by using the district region analysis Interval Grade determination. In determining the class interval would use a formula that looks as follows [5]:

$$Ki = \frac{Xt - Xr}{k} \quad .... \ .... \ (1)$$

Information :

Ki : Class Interval

xt : Top Data

xr : Lowest Data

k : Number of the desired class

c. Influence Factor Analysis

Analysis of influence factors used to know influence of factors - factors considered to influence the spread of a potential HIV/AIDS, especially in areas that have a high level cases. The analysis used the statistical analysis Regression. Factors thought to affect as data on the number Female Sex Workers Direct (WPSL), Female Sex Workers Indirect (WPSTL), Injecting Drug Users (IDUs), Sex and Men Love Men (MSM). The formula for Simple Linear Regression used is as follows [4]:

ISBN: 978-602-53420-4-2

Y = a + bX .... (2)

Information :

Y = Subjects who predicted the dependent variable (number of cases of HIV/AIDS)

a = constant regression to X = 0

b = coefficient regression direction

X = independent variable / Predictor (Population Lock)

The magnitude of the constants a and b searched using the equation:

$$a = \frac{(\sum Y_i)(\sum X_i^2) - (\sum X_i)(\sum X_i Y_i)}{n \sum X_i^2 - (\sum X_i)^2}$$

$$b = \frac{n\ (\sum X_i\ Y_i) - (\sum X_i)\ (\sum Y_i)}{n \sum X_i^2\ -\ (\sum X_i)^2}$$

Where n is the number of data

FINDINGS AND DISCUSSIONS

After analysis of data both primary data and secondary data obtained the following results.

Distribution of Spreading HIV / AIDS Cases between 1987 - 2018 in Bali

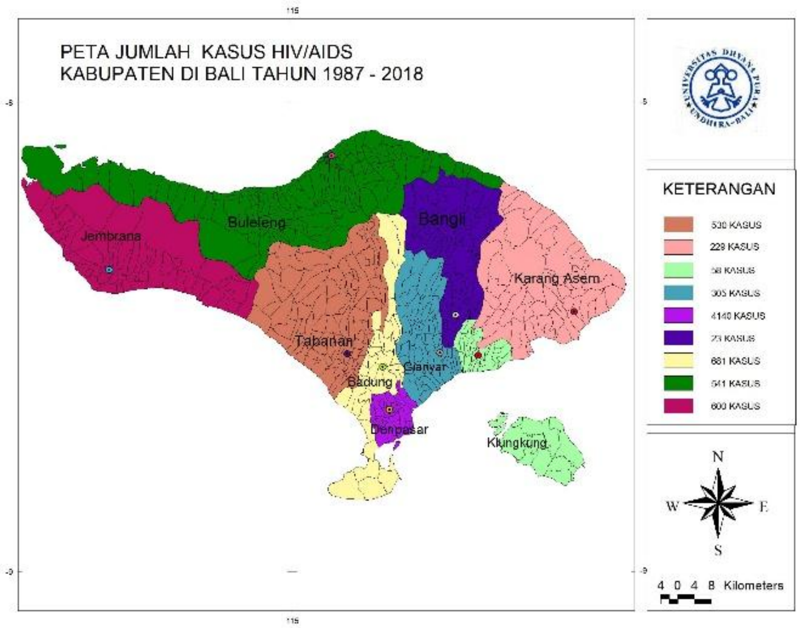


Figure 2. Mapping of HIV / AIDS cases in Bali Year 1987-2018

As seen in Figure 2. The data showed the spread of HIV / AIDS cases highest in Denpasar with 4140 cases, followed by Badung 681 cases, 600 cases Jembrana, and the lowest is Bangli with 23 cases.

Potential Areas Spreading

Determination of classification levels of potential vulnerability of the spread of HIV / AIDS cases by using the district region determination analysis Interval Grade (Formula Kingma). By using the formula (1) is obtained:

ISBN: 978-602-53420-4-2

Table I. Range of Grades

Class	Class name	Value (cases)
1	Low	≤ 1372
2	moderate	1373 - 2745
3	High	≥ 2746

The class ranges obtained from the data potential spread of HIV / AIDS County and City in Bali as shown in Table II below.

Table II. Potential Spread of HIV / AIDS cases of the Year 1987 - 2018

Class	Class name	District / City
1	Low	Bangli, Tabanan, Gianyar, Karangasem, Beleleng, Klungkung, Jembrana, Badung
2	moderate	-
3	High	Denpasar

As seen in Table II, the area that has the potential spread of HIV / AIDS into the high grade is Denpasar many as 4140 cases. The high case in Denpasar influenced by their point Hot Spot deployment location area, such as South Denpasar in Sanur Danau Tempe, Lake Poso, East Denpasar Padang Galak, as well as North Carik Denpasar and Lumintang, as seen in Figure 3. This also according to the research Lestari (2013) about the potential location of the spread of HIV / AIDS cases in Denpasar Bali. It also discussed about the number of sex workers (FSW), which reached 4,000 people who transact at the point of Hot Spot locations, either directly or indirectly.

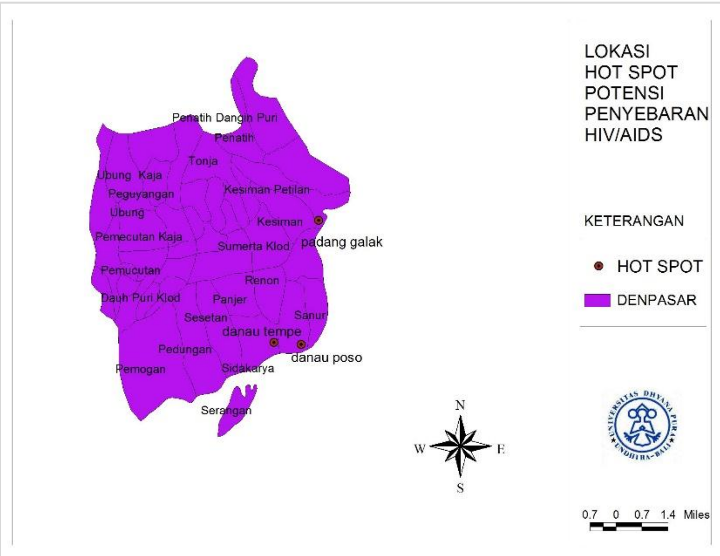


Figure 3. Location of Hot Spot in Region Denpasar

In Table III for cases of HIV / AIDS in 2019, Badung enroll in classes and Denpasar potential spread was still a high-potential region in the spread of cases.

Table III. Potential spread of new cases of HIV / AIDS 2019

Class	Class name	Value (cases)	territory
1	Low	≤ 102	Jembrana, Tabanan, Gianyar, Klungkung, Bangli, Karangasem, Buleleng
2	moderate	103-205	naughty
3	High	≥ 206	Denpasar

Based on the data obtained, the high potential for the spread of HIV / AIDS in Denpasar influenced by the spread of risk factors, as seen in Table IV below.

Table IV .Cause Risk Factors in Denpasar Bali

Estimated Risk Factor	HIV / AIDS		
	Male	Female	Total
Bisexual	25	0	0
Heterosexuals	2081	1259	3340
Homosexual	252	7	259
IDU (Injection Drug Use)	254	20	274
Perinatal (Pregnancy)	114	65	179
Not known	51	12	63
Total	2777	1363	**4140**

Heterosexual be the highest risk factor in Denpasar with a total of 3340 cases, where male and female 2081 cases in 1259 cases. This is according to research Munijaya (1999) that one of the main causes of the spread of HIV / AIDS in Indonesia is through sexual intercourse often change partners.

Age Group Cases for HIV / AIDS patients in the city of Denpasar can be seen in Table V.

Patients Age Group Table V. HIV / AIDS cases in Denpasar

Age Group (years)	AIDS		
	Male	Female	Total
<1	15	7	22
1-4	62	39	101
5-14	14	11	25
15-19	20	34	54
20-29	662	405	1067
30-39	858	364	1222
40-49	461	181	642
50-59	183	54	237
> 6 0	45	13	58
Not known	457	255	712
Total	2777	1363	**4140**

ISBN: 978-602-53420-4-2

As seen in the table above, the most vulnerable age group is aged 30-39 years with 1222 cases. This is in line with research Daughter (2018) in the field of HIV / AIDS that age who are vulnerable to HIV / AIDS are of childbearing age 25-34 years.

Influence Factor Analysis Results the Spread of HIV / AIDS in Bali

The high potential for the spread of HIV / AIDS in Denpasar based on statistical regression analysis obtained by the weak strong factors influence key populations by the spread of HIV / AIDS. By using SPSS 17.0 was obtained a summary of the simple linear regression analysis as shown the following table.

1. Key populations WPSL

Table VI. Result Simple Regression Analysis for Key Populations WPSL

variables	Koef. Regression (B)	t - count	Sig. t	Information
constants	205 622	2,782	0027	
WPSL (X1)	3,549	17 965	0000	Significant
R Square	0979			

Regression analysis results can be written above equation becomes:

$$\mathbf{Y = 205\ 622 + 3{,}549\ X1}$$

A constant value of 205 622, this means that the number of cases of HIV / AIDS will amount to 205 622 if WPSL amount equal to zero. This can be explained that the HIV / AIDS cases would be declining if no WPSL.

Variable number WPSL (X1) has a positive effect on the number of cases of HIV / AIDS, with a regression coefficient of 3549 showed that when the amount of WPSL increased by 1 percent, the number of cases of HIV / AIDS will be increased by 3,549 percent, assuming other variables constant. Significant value (sig) of 0.000, this value is much lower than 0.05, then the effect of the number of cases of HIV / AIDS on WPSL is a significant amount.

The coefficient of determination R2 of 0979, which means 97.9% of the variation in the dependent variable number of cases of HIV / AIDS can be explained by variations in the independent variable WPSL number.

2. Key populations WPSTL

Table VI. Result Simple Regression Analysis for Key Populations WPSTL

variables	Koef. Regression (B)	t - count	Sig. t	Information
constants	-1955	- 0:07	0027	
WPSTL (X2)	2,023	4894	0000	Significant
R Square	0774			

Regression analysis results can be written above equation becomes:

$$\mathbf{Y = -1955 + 2023\ X2}$$

Constant value of -1 955, this means that the number of cases of HIV / AIDS will be at -1955 if WPSL amount equal to zero. This can be explained that the HIV / AIDS cases would be declining if no WPSTL.

WPSTL number of variables (X2) has a positive effect on the number of cases of HIV / AIDS, with a regression coefficient of 2.023 indicates that if the amount of WPSL increased by 1 percent, the number of cases of HIV / AIDS will be increased by 2,023 percent, assuming other variables constant. Significant value (sig) of 0.000, this value is much lower than 0.05, then the effect of the number of cases of HIV / AIDS on WPSTL number is significant.

The coefficient of determination R2 of 0774, which means 77.4% of the variation in the dependent variable number of cases of HIV / AIDS can be explained by variations in the independent variable WPSTL number.

3. Key populations of IDU

Table VI. Result Simple Regression Analysis for Key Populations IDU

variables	Koef. Regression (B)	t - count	Sig. t	Information
constants	18 457	0050	0961	
IDU (X3)	12 712	3319	0013	Significant
R Square	0611			

Regression analysis results can be written above equation becomes:

Y = 12 712 18.457+ X3

A constant value of 18 457, this means that the number of cases of HIV / AIDS will amount to 18 457 if the number of IDUs is equal to zero. This can be explained that the HIV / AIDS cases would be declining if no IDU.

Variable number of IDU (X3) has a positive effect on the number of cases of HIV / AIDS, with a regression coefficient of 12 712 showed that when the amount of WPSL increased by 1 percent, the number of cases of HIV / AIDS will be increased by 12 712 percent, assuming other variables constant. Significant value (sig) of 0.013, this value is much lower than 0.05, then the effect of the number of cases of HIV / AIDS on the number of IDU is significant.

The coefficient of determination R2 of 0611, which means 61.1% of the variation in the dependent variable number of cases of HIV / AIDS can be explained by variations in the independent variable number of IDU.

4. Key Populations Shemale

Table VI. Result Simple Regression Analysis for Key Populations Shemale

variables	Koef. Regression (B)	t - count	Sig. t	Information
constants	-60 972	- 0.176	0865	
Shemale (X4)	11,778	3,766	0007	Significant
R Square	0670			

Regression analysis results can be written above equation becomes:

Y = 11 778 -60 972 + X4

Constant value of -60 972, this means that the number of cases of HIV / AIDS will amount to -60 972 if the number of Transgender equal to zero. This can be explained that the HIV / AIDS cases would be declining if no Shemale

Variable number Transgender (X4) has a positive effect on the number of cases of HIV / AIDS, with a regression coefficient of 11,778 showed that when the amount of Transgender increased by 1 percent, the number of cases of HIV / AIDS will be increased by 11,778 percent, assuming other variables constant. Significant value (sig) of 0.007, this value is much lower than 0.05, then the effect of the number of cases of HIV / AIDS on Transgender is a significant amount.

The coefficient of determination R2 of 0.670, which means 67% of the variation in the dependent variable number of cases of HIV / AIDS can be explained by variations in the independent variable Transvestite number.

5. Key populations of MSM

Table VI. Result Simple Regression Analysis for Key Populations MSM

variables	Koef. Regression (B)	t - count	Sig. t	Information
constants	102 143	0289	0781	
LSL (X5)	0439	3,300	0013	Significant
R Square	0609			

Regression analysis results can be written above equation becomes:

Y = 102 143 + 0439 X5

A constant value of 102 143, this means that the number of cases of HIV / AIDS will amount to 102 143 if the number of MSM is equal to zero. This can be explained that the HIV / AIDS cases will decline if there is no MSM.

Variable number of MSM (X5) has a positive effect on the number of cases of HIV / AIDS, with a regression coefficient of 0439 showed that when the amount of WPSL increased by 1 percent, the number of cases of HIV / AIDS will be increased by 0439 percent, assuming other variables constant. Significant value (sig) of 0.013, this value is much lower than 0.05, then the effect of the number of cases of HIV / AIDS on MSM is a significant amount.

The coefficient of determination R2 of 0609, which means 60.9% of the variation in the dependent variable number of cases of HIV / AIDS can be explained by variations in the independent variable number of MSM.

CONCLUSION

The conclusions obtained from this study are as follows:

1. Denpasar become a region with high potential for the spread of cases of HIV / AIDS because there are such hotspot locations in Tempe Lake, Lake Poso and Padang Galak.
2. The spread of HIV / AIDS in Denpasar majority through Heterosexual and vulnerable age are of childbearing age 30-39 years.
3. WPSL number of key populations, WPSTL, IDU, MSM Transgender and significant effect on the potential spread of HIV / AIDS with Sig value of <0.05.

REFERENCES

[1] The Central Bureau of Statistics Bali province. In Figures 2019 Bali Province. Accessed August 20, 2019. < https://bali.bps.go.id/publication.html>.

[2] Lestari, P. 2013. Control Policy HIV / AIDS in New York City. National Public Health Journal Vol. 8, No. 1. Accessed August 23, 2019. <http://journal.fkm.ui.ac.id/kesmas/article/view/341>.

[3] Daughter, DA 2018. Characteristics of Patients with HIV / Aids in the General Hospital Haji Medan Year 2015-2017. Accessed August 23, 2019. <https://pdfs.semanticscholar.org/5604/c61a344b25572e4afcd641ae8c67199cb314.pdf>

[4] Sugiyono. 2013. Quantitative Research Methods, Qualitative and R & D. Bandung: CV Alfabeta

[5] Sturges, HA (1926). "The Choice of a Class Interval". Journal of the American Statistical Association. 21, 65-66

[6] Muninjaya, AA 1999. AIDS in Indonesia, issues, policies and ways to overcome them. EGC. Jakarta.

STYLISTIC FEATURES OF TOURISM ADVERTISEMENT IN BALI

Ni Luh Desy Suari Dewi
Universitas Dhyana Pura
desysuaridewi@undhirabali.ac.id

ABSTRACT

Advertisement is a message in the form of written or visual that has function to promote. The language used in advertisement is different with the language used in daily life. The language is very persuasive in order to grab attention of the people. Therefore, the analysis of advertisement language is interesting to be discussed. This study focuses on the analysis of stylistic features found in tourism object advertisement in Bali. The aims of this study is to find out the kind of stylistic features contain in tourism object advertisement in Bali. The advertisements were taken from several magazines that published in Bali. The collected data was analysed qualitatively based on the theory of stylistic on language and rhetorical devices. From the analysis, it was found that the stylistic features contain in the advertisements; those are rhetorical devices such as schemes and tropes.

Keywords: *stylistic, rhetorical devices, advertisement*

INTRODUCTION

Stylistic defines as the linguistic study of style [1]. It is the branch of linguistic deals with determining which features of written or spoken language characterizing particular group or context. Stylistic is also seen asn the way of making a criticism on literary text by using linguistic elements [2]. The term 'style' is used in linguistics to describe the choices of language which available to user. The language choice is usually used in advertisement to provoke and atrract the people. Advertisement should have unique language that can capture consumer's attention and memorable. The language used in advertisement is different with the language used in daily life. The language is very persuasive to grab attention of the people. Therefore, the language of advertising frequently uses rhetorical devices such as figures of speech and other stylistic devices in order to persuade the consumers and to get consumers' attention.

Rhetorical devices or figures of speech are "generic terms of any artful deviations from the ordinary mode of speaking or writing" [3]. They also state that rhetorical devices are divided into two classifications, namely schemes and tropes. These features give a lot of roles to make the advertisement become more interesting. Schemes is formed by the changing of the spelling or sound of the words, phrases or clauses [3]. It deals with the arrangement of the text. It happens by adding or subtracting the letter(s) or syllable(s) in the beginning, middle or end of words, phrases or clauses, or by changing the sound of the letter(s) or syllable(s). There are 27 schemes proposed [3]. While tropes deals with the meaning of the text. Tropes create some deviation meaning on the semantic level to make it more dramatically and memorable for the audience [3].

METHODS

This research is categorized as a qualitative research. In this method, the data that have been collected are in the form of description rather that numerical data. This kind of research is also considered as document analysis in which the data can be taken from written or visual material, such as textbooks, newspapers, magazines, television, websites and etc. The data of this research were taken from some advertisements of tourism in Bali Tourism Newspaper and Api Magazine. They were chosen as the data source since they consist of many advertisements about Bali Tourism facilities, services and products. Then, the data were analyzed by using rhetorical devices theory that divide rhetorical devices into two types; schemes and tropes [3].

FINDINGS AND DISCUSSIONS

Stylistic is defined as the linguistic study of style [1]. Stylistic can be divided into lexical categories, grammatical categories, figurative language and cohesion and contexts. In this research, the analysis focuses on figurative language of the sentences in Bali Tourism Advertisement. In this analysis, stylistic was used to explain the style of the Bali Tourism Advertisement. Advertisements have power to persuade other people to give attention to one product. Therefore, advertisements need tools to give beauty and art to the message that will be delivered through advertisement. Rhetorical devices serve as a tool that can give that beauty and art to the advertisement. Rhetorical devices or figures of speech, are "generic term of any artful deviations from the ordinary mode of speaking or writing" [3]. They also divide these devices into two classifications: schemes and tropes. The analysis of this study was focused on these classifications.

Rhetorical Devices

The finding of the research showed that advertisements of tourism in Bali apply types of rhetorical devices, those are Schemes and Tropes. The more explanation will be presented as follows:

Table 1. Analysis of Advertisement 1

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
Good Food Good Price	Bebek Sungai	Anaphora	

The first data was taken from Bebek Sungai restaurant that has headline 'Good Food Good Price'. The advertisement from Bebek Sungai uses rhetorical devices which can be categorized as schemes. Schemes deal with words arrangement or structure. The words arrangement can be seen from the used of headline 'Good Food Good Price'. It is used to persuade the consumers. Based on the advertisement, there is a repetition of the word that can be seen from the use of 'good'. The word 'good' is used to describe the food that is offered by Bebek Sungai and it is repeated again when 'good' is used to describe the price of the food in Bebek Sungai. It means that when we go to the restaurant we will get delicious food with affordable price. Therefore, the type of scheme which is used in this advertisement is called anaphora. Anaphora is formed by the repetition of the same word or group of words at the beginning of the clause or sentence. By doing this technique, the advertiser tries to catch consumers' attention with the memorable words.

Table 2. Analysis of Advertisement 2

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
A New Year, A New You	W Bali Seminyak Retreat & Spa	Anaphora	

The second data was taken from advertisement that offers services from W Bali Seminyak Retreat & Spa. They apply scheme technique in their advertisment. The type of scheme which is used in this advertisement is called anaphora. Anaphora is formed by the repetition of the same word or group of words at the beginning of the clause or sentence. The repetition of the word in this advertisement can be seen from the use of 'a new'. The advertiser uses the term 'new' to describe 'year' and also it is used to describe 'you'. It means that when you do treatment at W Bali Seminyak Retreat & Spa you will not only feel about the new year but you will be ready welcoming the new year after you do the treatment at this spa. This advertisement uses rhetorical devices which can be categorized as schemes. Schemes deal with words arrangement or structure. The arrangement of the word 'new' here make the advertisement easier to be remembered by the people.

Table 3. Analysis of Advertisement 3

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
Supreme, Serene and Sacred	The Sungu Resort & Spa	Alliteration	

The third data was taken from advertisement that also offers services from The Sungu Resort & Spa. This Resort & Spa tries to atrract the readers or consumers by using schemes. It is a kind of rhetorical devices which deals with words arrangement or structure. The type of scheme which is used in this advertisement is called alliteration. Alliteration is formed by the repetition of the initial or medial consonants in two or more adjacent words. Based on this data, it can be seen that this advertisement is formed by the repetition of initial consonant 's' in the words: **S**upreme, **S**erene and **S**acred.

These words have meaning that this spa offers peace and comfortable atmosphere when the customers' do the treatment in this spa. By using alliteration, the advertiser has expectation that they will easy to grab consumers' attention and it will be easy to be remembered.

Table 4. Analysis of Advertisement 4

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
Luxurious Five Star and A New Lifestyle	The Anvaya Beach Resort - Bali	Assonance	

The fourth advertisement was taken from The Anvaya Beach Resort – Bali. Rhetorical devices which deals with words arrangement or structure is also used by The Anvaya Beach Resort - Bali in their advertisement. They used schemes which can be categorized as assonance. Assonance is formed by the repetition of the same vowels, followed by different consonants in the stressed syllables of the adjacent words. By using this kind of rhetorical devices, the advertiser wants to give vowel harmony in the words to get the consumers' attention and to be remembered for a long time. Based on this advertisement the assonance is formed by the repetition of the same vowels in the sentence 'L**u**xurious F**i**ve St**a**r and A New L**i**fest**y**le'. When you say this headline, automatically it will always appear in your memory because of the harmony of the vowels sound in the words that was created by the advertiser.

Table 5. Analysis of Advertisement 5

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
Memorable Place in Bali	Tanah Lot	-	Hyperbole

The fifth advertisement was from Tanah Lot. The advertisement of Tanah Lot tries to persuade people to visit this place. Based on the sentence we can see that it uses figurative language or rhetorical devices. It is categorized as 'tropes' which can give deviation meaning on semantic level in order to make it easily to be remembered. The advertiser claims that Tanah Lot offers a place that will be easily to be remembered because Tanah Lot has a very good or unusual object to visit. Based on this advertisement, the advertiser uses hyperbole which involves exaggeration of ideas to show the confidence and spirit of this tourism object. By using the words 'memorable place', this advertisement sounds like an overstatement which gives the consumers a very profound impression.

Table 6. Analysis of Advertisement 6

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
Best Place for Pre Wedding	Sangeh Monkey Forest		Hyperbole

The sixth advertisement was taken from one of the most popular tourism object in Bali; Sangeh Monkey Forest . A classification of figurative language or rhetorical devices which is used in advertisement of Sangeh Monkey Forest is tropes. Tropes deal with the meaning of words. The advertiser claims that Sangeh Monkey Forest offers the most excellent place for pre wedding. Based on this advertisement, the advertiser uses hyperbole which involves exaggeration of ideas to show the confidence of this object as a place for pre wedding. By using the words 'best place', this advertisement sounds like an overstatement which gives the consumers a very profound impression about this place.

Table 7. Analysis of Advertisement 7

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
For forty years the world has come to Poppies Restaurant	Poppies Restaurant		Hyperbole

The seventh advertisement was taken from Poppies Restaurant. The sentence 'For forty years the world has come to Poppies Restaurant' was chosen as the sentence to persuade the consumers of Poppies Restaurant. The analysis of this advertisement showed that hyperbole is used to attract consumers' attention. There is an exaggeration which is showed by the word 'the world' in the advertisement. It is an exaggeration because it is very impossible for all of the people in every country have visited Poppies Restaurant which is located in Bali. We know Bali is one of the best tourism destinations in the world, but not all the people in the world have visited Bali. So, it is impossible for saying that all people in the world have visited this restaurant. Therefore, this advertisement sounds overstatement. There is an exaggeration which is showed by the word 'the world' in the advertisement.

Table 8. Analysis of Advertisement 8

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
Experience tranquility of Mother Earth	Pertiwi Resort and Spa		Metaphor

ISBN: 978-602-53420-4-2

The eighth advertisement was from Pertiwi Resort and Spa. This Resort and Spa used sentence 'Experience tranquility of Mother Earth' in their advertisement to attract consumers' attention. This sentence has rhetorical devices type tropes which can be categorized as metaphor. Metaphor is a word or phrase used to describe something as if it was something else or the implication of the comparison between two things of unlike nature. By using metaphor, the advertiser tries to persuade the reader of the advertisement by comparing Pertiwi Resort and Spa to Mother Earth. So, when the people stay at Pertiwi Resort and Spa, the guests will feel tranquility like they stay in Mother Earth. These words are used to give profound impression to the readers.

Table 9. Analysis of Advertisement 9

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
Where nature meets art with romantic ambiance	The Kayon		Personification

The ninth advertisement was taken from The Kayon. In this advertisement, the advertiser tries to get attention by using sentence 'Where nature meets art with romantic ambiance'. In this sentence, it can be said that the advertiser applied rhetorical device which is called personification. According to Corbett and Connors (1999), Personification is an investing abstraction for inanimate objects with human qualities or abilities. It means that inanimate thing is given human attributes. The words 'nature, art and romantic ambiance' which are non-human objects are considered as human being. 'Nature, art and romantic ambiance' are given human attributes as it could do an action 'meets'. The sentence in this advertisement implicitly describes that The Kayon offer a great place where you can get combination of natural sense, art and intimacy.

Table 10. Analysis of Advertisement 10

Headline	Product	Types of rhetorical devices	
		Schemes	Tropes
Morning Spirit from Lumbung Where A Million of Smiles Await You Home	Hotel Vila Lumbung		Synecdoche Hyperbole

The last advertisement was taken from Hotel Vila Lumbung. Based on this headline, it can be seen that rhetorical devices used in this advertisement are synecdoche and hyperbole. They are kinds tropes which deal with the meaning of words. Synecdoche is a kind of rhetorical devices in which a term for a part of something refers to the whole of something. The word 'smiles' in this advertisement doesn't only represent the smile of the staff but also the hospitality (language choice and gesture) of Hotel Vila Lumbung's staff. Besides, hyperbole is also used in this advertisement. It can be seen by the use of exaggeration statement in the words 'A Million of Smiles'. In the reality, it is impossible to see a thousand of smiles in the villa. It means that this statement sounds like overstatement.

CONCLUSION

Based on the data, it can be concluded that tourism advertisement in Bali apply rhetorical devices in order to attract and persuade consumers. They are schemes and tropes. In which schemes deal with the arrangement of the words. In this research the types of schemes that are found can be categorized as anaphora, alliteration and assonance. Anaphora is found twice in advertisements meanwhile alliteration and assonance were only found once in the advertisement. Anaphora is formed by the repetition of the same word or group of words at the beginning of the clause or sentence. Alliteration is formed by the repetition of the initial or medial consonants in two or more adjacent words. Then, assonance is formed by the repetition of the same vowels in the sentence The other rhetorical device is tropes. Tropes deal with the meaning of the words. In this research, the types of tropes that can be found are hyperbole, personification, metaphor, and synecdoche. Hyperbole is the most popular technique that is used by the advertiser. This type are found in four advertisement. Meanwhile, personification, metaphor and synecdoche are only found once in the advertisement. Hyperbole involves exaggeration ideas in the sentence. Meanwhile, metaphor is a word or phrase used to describe something as if it was something else or the implication of the comparison between two things of unlike nature. Personification means that inanimate thing is given human attributes. And the last, synecdoche is a kind of rhetorical devices in which a term for a part of something refers to the whole of something.

REFERENCES

[1] Leech, Geoffrey and Michael H. Short. 1981. *Style in Fiction*. Longman: London Geroup Limited.
[2] Barry, Peter. 1995. Beginning Theory: An Introduction to Literary and Cultural Theory. New York: Manchester University Press.
[3] Corbett, E. P. J.; Connors, R. J. (1999). *Classical rhetoric for the modern student.*
[4] Cockroft, R. & Cockroft, S. (2014). *Persuading people*. An Introduction to
[5] Ding, X. (2003). Stylistic Features of the Advertising Slogan. Accessed on 10 January 2019. Available from the Internet: http://www.translationdirectory.com/article49.htm

EDUCATIONAL TOUR IN DENPASAR TRAFFIC PARK FOR EARLY CHILDHOOD

Putu Indah Lestari[1], Elizabeth Prima[2]

[1,2]Departement of Teacher Education-Early Childhood Education Programe, Faculty of Economics and Humanities, Universitas Dhyana Pura
Email: indahlestari@undhirabali.ac.id

ABSTRACT

Early childhood education activities developed in the learning system must be well planned in accordance with the level of achievement of children. This is supported by the early childhood learning environment, namely the availability of children's playing facilities that enable the children to move freely, create, explore, and do various manipulation activities so that they can get new experiences from their activities. One of the learning environments for early childhood is the Child Friendly Integrated Public Space (CFIPS), which is a public space that has the characteristics of a public open garden, as a safe place for children to play and growth. The CFIPS in Denpasar City that is often visited by early childhood (PAUD) schools is the Traffic Park. This paper discusses the descriptive research on the educational tour element of Denpasar Traffic Park. The findings of this study suggest that the Denpasar Traffic Park is mainly used for outing class activities, educating students regarding traffic safety and order. It serves as an opportunity for learning outside the classroom, which provides experience and knowledge to the children.

***Keywords**: Traffic Park, Early childhood, education, CFIPS*

INTRODUCTION

The goal of nation building in Indonesia is to realize a just and prosperous society based on the philosophy of Pancasila. Education is an effort to prepare the next generation in facing the era of globalization that is full of challenges. An important component of Indonesian society is children because children are the present and future stakeholders of the nation. To that end, the development of early childhood is necessary in terms of health, education, and well-being [1].

Early Childhood Education is an education level intended for children from birth to 6 years of age, which is carried out through educational stimulus assistance to assist in the growth and physical development and children, to prepare them for their next stages of formal, non-formal and informal education [2]. All forms of early childhood education developed in the learning system must be well planned according to the children's achievement levels. Early childhood education is intended to facilitate the development of healthy and optimal children with the values, norms, and expectations of the community. Early childhood education is done through providing experience, maximum stimulation, and providing a conducive environment [1].

Early childhood learning environment should provide children with playing facilities that enable them to move freely, be creative, to explore, and to do various manipulations so that children get some new behaviors from their activities. The learning environment in the room will be used as a learning place for children to hone their various potentials. Activities in outdoor learning environments where children play (outdoor playgrounds) are an integral part of children's development and learning programs. The outdoor learning environment is beneficial and effective in fostering the development of children with multiple intelligences, so the outdoor playground learning environment must be organized properly and seriously [3]. The learning environment is one of the key success factors in building children's abilities and behavior and developing children's intelligence potential. The implication is that the environment for children must be given priority, especially if the environment is a learning environment. One of the learning environments for young children is the Child Friendly Integrated Public Space (CFIPS). It is a public space that has characteristics as a public open park, a vehicle for development and child development, part of child-friendly urban infrastructure and facilities, green open space, and facilities for activities social which is equipped with various interesting games, CCTV surveillance, library room, PKK Mart, lactation room, and others [4]. The CFIPS aims to provide a venue for various activities and functions of integrated public spaces, such as play and learning for children, a place for social interaction for citizens, a place for consultation and information space and education for residents.

METHODS

This research is a descriptive study that aims to describe a phenomenon systematically according to what it is. Descriptive research is carried out with the main objective of systematically describing facts and characteristics of the object or subject being studied appropriately. The location of this research was conducted in the Child Friendly Integrated Public Space (CFIPS) of Denpasar City, namely the Traffic Park. The choice of location is based on the phenomenon of the place being used by early childhood (PAUD) schools as learning activities outside the classroom. The existence of Child Friendly Integrated Public Space (CFIPS) is a realization of Denpasar's objective to become a Child-Friendly City. The main data types in qualitative research are descriptions that are directly or indirectly related to the research topic. Primary data sources were obtained directly from the results of interviews with the principal, while secondary data sources include research results, scientific journals, magazines, books, and child-friendly integrated public space management documents. Data collection techniques employed are: observation techniques, interview techniques, and document study techniques or literature study). Data Analysis method used to descriptive qualitative analysis method. This analysis aims to make a systematic, factual, and accurate description of the facts of an area, in this case the CFIPS of Traffic Park. The analysis is descriptive in which the data collected in this study is in the form of words or images. This data analysis is done after all data has been collected completely, then arranged according to the desired pattern.

FINDINGS AND DISCUSSIONS

The park was established on February 25, 2013, which was initiated by the Denpasar City Transportation Agency, Jasa Raharja, and Denpasar Police. The Traffic Park is located on Jalan Gatot Subroto Tengah, south of Lumintang City Park. The purpose of establishing the Traffic Park is to educate, ethics, morals and cultivate orderly traffic. The Traffic Park becomes a miniature of facilities and infrastructure aspects of traffic safety. The Traffic Park is functioned as an educational event for the community related to traffic safety and order, especially educational facilities for children of early childhood education to senior high school. The Traffic Park is equipped with facilities that can support educational programs. Existing facilities in the Traffic Park include: signs, road markings, the School Safety Zone ("*ZoSS*"), traffic light, bus stops, sidewalks, and bicycle storage. Based on the interview with the Head of Traffic of the Department of Transportation, Mr. Ketut Darsana, S.H, the Traffic Park can be utilized by schools to educate students, especially in the order of traffic:

> "... the transportation agency has prepared a Traffic Park so the school can use it to educate its students. When going to do activities in the Traffic Park, the school can write to us, free of charge. Besides schools, the community can use this public facility for recreation ... "(Personal interview, 19 August 2019)

Furthermore, Darsana conveyed the excellence of the Traffic Park is one of the benchmarks of people who master, understand, and cultivate orderly traffic on the highway. Another advantage is the Traffic Park changes the mindset of the community to know that caution, empathy, and safety are number one on the highway.

Figure 1. Denpasar Traffic Park

The availability of Traffic Park is used by PAUD schools to educate students to practice discipline. The benefits obtained from learning activities outside the classroom at the Traffic Park include training students about discipline, and rasing awareness regarding traffic rules and regulations. Ms. Nonik Ariyanti, S.E., S.Pd, the principal of Gita Sapta Kumara Kindergarten explained:

> "... the Traffic Park provides many benefits for our school, students can learn about orderly traffic. In addition, students learn to be disciplined, social and independent. Learning outside the classroom provides deeper knowledge for students .... "(Personal interview, 19 July 2019)

Ms. Ariyani stated that after taking her students to play while learning in the Traffic Park, Gita Sapta Kumara Kindergarten students can apply discipline especially when on the road. Children who initially did not wear helmets to school asked their parents to buy a helmet. There are even children who reminded their parents when parents violated traffic signs. A similar sentiment was also conveyed by Mrs. Wijayanti, S.Pd, Principal of the Tunas Mekar Kindergarten, explaining:

> " our school has visited the park a number of times. We feel the benefits of the park. Children are very happy when playing while studying there. Children learn discipline. Even after the activities there, children are able to implement orderly on the highway "(Personal interview, 13 August 2019)

Aspects of early childhood development include cognitive development, language, motor skills, social emotional, religious and moral values, and art. The six aspects of development are given in the learning process. Outside learning activities are part of children's development which involves multi-aspects of child development. Activity in the room plays a role in integrating sensory and various potentials of children. The multiple aspects of development that can be enhanced include physical development, socio-cultural development, emotional and intellectual development. Outdoor learning activities stimulate physical development and growth [5].

According to Johnson, there are four types of play experience, namely: 1) games or functional exercises that involve practice and repetition of gross motor activity; 2) constructive play which involves the use of materials such as paint or sand to be created / formed; 3) plays or pretense games that are often performed in a closed place; 4) group games or games involving more than one child (for example seesaw, game with rules, and drama) [5].

The main educational value obtained at the Traffic Park is the value of cognitive development. In the Traffic Park, children can learn about orderly traffic, children know the meaning of traffic signs, know how to cross the road. In addition, in the Traffic Park children can also learn colors, geometric shapes. According to Wijayanti, S.Pd:

> "... children can learn orderly traffic. Children can learn how to cross the road. When going to hold an outing activity, ask permission from the Bali Police to be prepared by police officers. Besides that, a bicycle is prepared that can be used by children to learn orderly on the road. Children also learn to recognize colors and geometric shapes. There are signs in the form of circles, triangles, squares ... "(Personal interview, 13 August 2019)

Children's development achievements are regulated by the Minister of Education and Culture Regulation No. 137 of 2014, namely for children aged 4-6 years the stages of cognitive development that can be achieved are learning and problem solving, logical thinking, and symbolic thinking. Aspects of learning and problem solving include: exploratory and probing activities; solving simple problems in life; applying experience in new contexts; and show creative attitude in solving problems. Vygotsky in the theory of cognitive development revealed the cognitive development of children is strongly influenced by social interactions between children against their environment. The zone of proximal development is the concept of social constructivism where children develop new ways of thinking and solving problems by working with others [6].

Figure 2. Aspects of Cognitive Development in Traffic Parks

A free and open environment gives children a natural opportunity to run, jump and move their entire body. Playing in an open environment encourages children to interact among their children, social skills, the ability to negotiate, and work together. Children learn to compromise and practice patience while waiting their turn.

CONCLUSION

Child Friendly Integrated Public Space in the City of Denpasar, namely the Traffic Park is one of the learning environments in the City of Denpasar. The construction of the Traffic Park is intended to provide a place to play while learning (edu-recreation) that is used by community members, including early childhood. The value of education in the Traffic Park that can be improved include cognitive development, physical development, socio-cultural development, emotional and intellectual development.

REFERENCES

[1] M. et al Latif, *Orientasi Baru Pendidikan Anak Usia Dini Teori dan Aplikasinya*. Jakarta: Kencana Prenadamedia Grup, 2014.

[2] U. Undang, *No Title*. Indonesia.

[3] R. Mariana, "Penataan Lingkungan Belajar Terpadu Untuk Meningkatkan Potensi Kecerdasan Jamak Anak," *Pedagog. J. Ilmu Pendidik.*, vol. 15, no. 3, pp. 759–767,

2017.
[4] E. Hernowo and A. M. Navastara, "Karakteristik Ruang Publik Terpadu Ramah Anak (RPTRA) Bahari di Kecamatan Cilandak Jakarta Selata," *J. Tek. ITS*, vol. 6, no. 567–570, 2017.
[5] R. Mariana, A. Nugraha, and Y. Rachmawati, *Pengelolaan Lingkungan Belajar*. Jakarta: Kencana Prenadamedia Grup, 2010.
[6] D. A. Walujo and A. Listyowati, *Kompendium PAUD*. Depok: Prenadamedia Group, 2017.

ISBN: 978-602-53420-4-2

BUILDING ENGLISH VOCABULARY FOR COOKING THROUGH SEMANTIC FEATURE ANALYSIS

Gek Wulan Novi Utami[1], Ni Luh Desy Suari Dewi[2]
[1,2]Universitas Dhyana Pura
wulannoviutami@undhirabali.ac.id

ABSTRACT

Tourism in Bali develops rapidly and efforts to improve tourism industry increasingly encouraged; food tourism is one of them. Food tourism or culinary tourism has own attractiveness as purpose of tourism by exploring food. Therefore, many competent human resources are demanded and cooking or culinary terms are necessary to master. Learning and teaching English for specific purposes needs some strategies to make learners easy to comprehend so that they master adequate vocabularies and use words effectively. It is assumed that this strategy helps learners to understand vocabularies through related semantic features of word so that the learners comprehend words they learnt and be able to describe or even distinguish synonymous words. The respondents are Dhyana Pura University 3rd year students in Food and Beverage class. Participation-observation is used as method and technique of collecting data. Meanwhile, descriptive method is used in analyzing data. This result shows that Semantic Feature Analysis (SFA) strategy influence over learners' understanding in learning English vocabularies that being marked with learners' ability describing cooking-vocabulary-related through semantic features analysis strategy.

***Keywords**: Bali, Cooking, English vocabulary, Semantic Feature Analysis, Tourism*

INTRODUCTION

Tourism in Bali develops rapidly. Efforts to improve tourism industry increasingly encouraged: food tourism. As reported by tourism webpage *Indonesia Expat* in 2016, Indonesia cooperated with United Nation World Tourism Organization (UNTWO) to help country to become the regional hotbed for the sustainable tourism industry. Government proposed Bali became Indonesia's prime gastronomy destination. Developing Gastronomy tourism in Bali be considered as the way to raise the awareness on the province's different dining options. *The Jakarta Post* reported on June 2019 about UNTWO assessed Ubud, Bali to be named a world gastronomy destination. Ubud, Bali has several criteria such as cuisine that has become a lifestyle, local product use, culture and history food related, and food nutrition and health consideration. Hence, many competent human resources are demanded. Mastering English vocabulary about food, cooking, and culinary and also be able to describe the words indicate this strategy works. Teaching and learning English for special purposes with certain strategy.

This research is conducted to know whether this Semantic Feature Analysis (SFA) strategy work or not on teaching and learning English vocabulary especially for cooking terms. SFA use to help learners explore how sets of things are related to one another. Use grid that have to be completed. To enhance comprehension and vocabulary skills. Vocabulary learning is named a core in language learning so that teaching vocabulary is a basic to improve other language's aspects ((Richards,1976; Nation,1990; Lewis,1993; Nation,2001; Schmitt & McCarthy, 2002; Xu,2010; Nezhad & Shorkpour,2012). Many obstacles are faced in learning English, one of them is lack of word's meaning that cause miscommunication because word misuse. Memorizing, for instance, that way is more frequently use to add English vocabulary but mostly English learners lack of word's meaning and it often causes misunderstanding moreover if it relates to diction or synonymous words. Nation (2001) explained, vocabulary mastery contains meaning more than just knowing the meaning, he also presupposes to know various words' knowledge aspects such as pronunciation, spelling, relation meaning, collocate, derivation, etc. Cruse (2004) also stated similar thing about word's meaning:

> *Meaning makes little sense except in the context of communication: the notion of communication therefore provides as good a place as any to start an exploration of meaning.*

Many tourism-based institutions were established and food and beverage lessons were one of the subjects. Culinary in tourism is one of the attractions until finally the term food tourism or culinary tourism appears which aims to develop the tourism industry through food or culinary. Students who are prepared as competent human resources are expected to master and understand the term cooking. Therefore, this strategy was applied to facilitate the learning process and also be able to describe these terms.

METHODS

This research is descriptive with a qualitative approach. Through qualitative methods, the subjective of natural human behavior will not be lost because the focus of this method is about understanding learners when taught with the AFS strategy so that the development of definitions of informants about this strategy and sensitivity to improvement or a sense of learning easier can also be obtained through this method and delivery of learners (Bogdan and Taylor, 1992: 22). In other words, this method makes it easy for researchers to enter and recognize the subject's understanding through two-way communication during Q&A sessions. Descriptive data can be used as an indicator to determine whether there is influence or impact of applying the AFS strategy in learning English vocabulary (Bogdan and Taylor, 1992: 19). The selection of research locations using a purposive sample (Hadi, 1983: 83), namely the selection according to the focus of the problem in this study.

In this study the data collected was data in the form of learners' answers to the questions given and notes on the learning process of learners such as questions and answers during the discussion. This research is classroom action research, data collected through class observations, tests, and notes on the results of class action observations. Data collection and selection of informants is done by a purposive sampling system that is the selection of areas and samples according to the problems in this study (Hadi, 2004). Participants numbered 45 people. The study was conducted in Universitas Dhyana Pura; Food and Beverage class. This study uses direct observations and a method of looking at involved proficiently (Black and Champion, 1992) in data collection. In the first stage, the learner is given a pre-test in the form of multiple choice questions and a semantic feature table that the learner will fill in. The second stage, the questions are discussed and explained with the help of semantic feature analysis to determine the similarities and differences in words. Activities in the second stage were carried out 4 times. The third stage students fill the post-test with the assumption that the learner already knows the differences in synonyms and can choose answers according to the needs of the questions. The results of the analysis are mostly presented by informal methods, namely descriptions in the form of verbal units. The method of presenting the results of the analysis is described by reasoning patterns inductively and deductively.

How to use SFA:

a. Select category for the semantic feature analysis: ingredients, kitchen utensils, verb for cooking.
b. Provide learners with key vocabulary words and important feature related to the topic: ingredient –grains, kitchen utensils- skimmer & spider.

c. Vocabulary words should be listed down the left hand column and the features of the topic across the top row of the chart.

d. Ask learners place a "+" sign in the matrix when a vocabulary word align with a particular feature of the topic. of the word does not align, learners may put a "-" in the grid. if learners are unable to determine a relationship they may leave it blank.

Table 1. SFA Sheet

INGREDIENTS	GRAINS	VEGETABLE	FRUIT	MEAT	POULTRY	FISH	BEAN	MILK
PORK								
WHEAT								
MANGO								
TURKEY								
BUTTER								
MACKEREL								
CAULIFLOWER								
PEAS								

FINDINGS AND DISCUSSIONS

Pre-test with Google Form's Assistance

In this section, researchers ask the students to fill in some words to define. Using Google form as an instrument to make researchers easier to calculate and list all of the respondents' answers. Those provided words are chosen having similar features so the researchers expect the respondents can define and distinguish those similar things. Respondents were given this form as pre-test and they have not accepted some explanation or related material yet, here are the result:

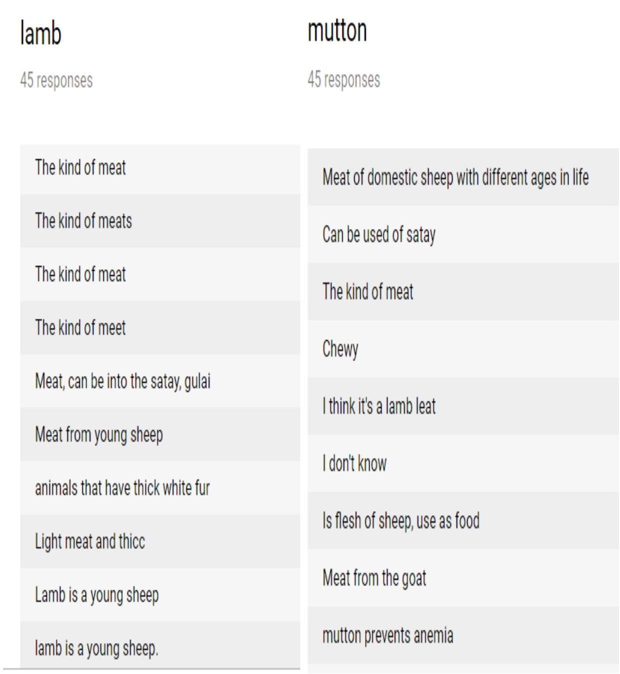


Figure 1. Lamb and Mutton

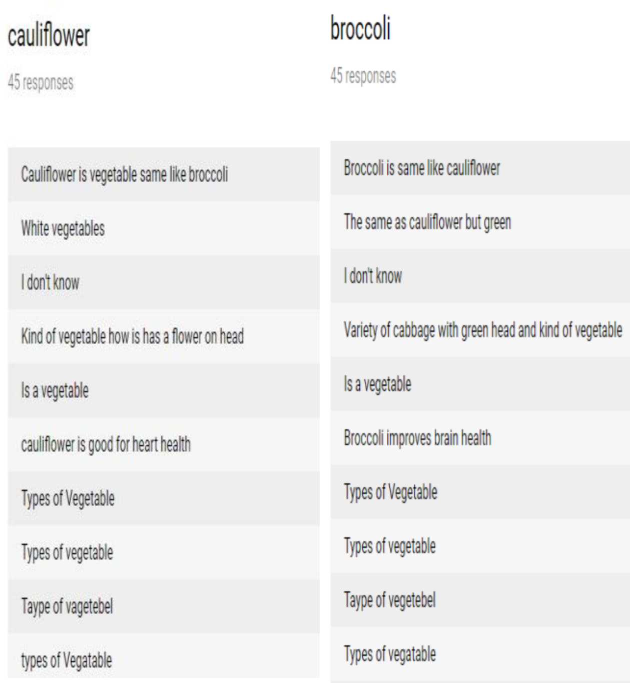


Figure 2. Cauliflower and Broccoli

ISBN: 978-602-53420-4-2

As seen on Figure 1, there are two words "lamb" and "mutton", sentences below are the respondents' answers on defining the word, mostly knew lamb and mutton are kind of meat from sheep but there is no significance gap between those. In Figure 2, respondents seem do not know the proper description but "type of vegetable" to define cauliflower and broccoli.

Learning English Vocabulary using SFA strategy

After the pre-test held, the researchers explained the use of the SFA strategy in the next meeting, including the use of the sign (+) means the features associated with the words provided and on the contrary for the use of signs (-).

	Meat from sheep	Less than 1 year old- sheep	Older than 1 year old sheep	Has little fat
Lamb	+	+	-	+
mutton	+	-	+	-

Previously mentioned, the respondents could not explain the definition of the words "lamb" and "mutton", as well as distinguish them. Most respondents do not know the meaning of the word "mutton" in Indonesian, they only know that mutton is a type of meat. The pre-test is also not supported by image media because it focuses on using the SFA strategy only. By using the SFA strategy, defining is easier to remember and the clearer distinctions between the two words are seen.

	Belong to *brassicaceae*	Contain vitamin A	Has strong and greener flavor	Has more calories
broccoli	+	+	+	+
cauliflower	+	-	-	-

Likewise, the words "broccoli" and "cauliflower" shown in figure 2, the respondents only know both are types of green vegetables. Some don't know "cauliflower" at all because they don't know the equivalent in Indonesian. By using SFA, respondents know that the two words are vegetables in one family, it's just the vitamin content, the number of calories, and the strong taste that distinguishes the two.

Kitchen utensil	Originate in China	Bowl-shaped pan	A flat metal pan	A deep and round pan	With handle	With a lid	For making sauce and soup	For boiling water	For frying
Frying pan	-	-	+	-	+	+	-	-	+
Wok	+	+	-	-	+	-	-	-	+
saucepan	-	-	-	+	+	+	+	+	-

If the two tables are about meat and vegetables, it's kitchen utensils' turn to define. Generally, we commonly hear and use word "frying pan" to mention one of kitchen utensils that is used to fry. However, there are other utensils that also used to fry or that include in pan's kinds and the knowledge must be acquired by respondents as students in Food and Beverage class. There is possible that the respondents know the name of the utensils and also distinguish them because their experiences in kitchen but they also need skill to describe in English. As mentioned before, SFA strategy is helpful in learning English vocabularies even with fun way because this strategy is not just memorizing words but also giving info as a material to be recalled or to be distinguished related words.

Post-test with Description

After two treatments by using SFA, the researchers took post-test. They were asked to describe some words provided, those vegetables and meat mention before are included. It found that 18 of 45 respondents can describe some words with 3 or more features and 27 respondents can describe with 2 features.

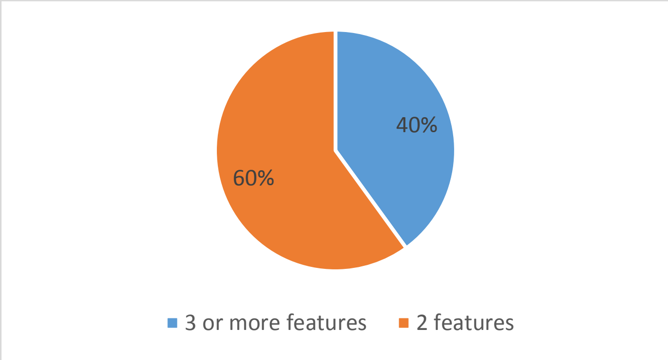


Figure 3. Post-Test Result

It proved that SFA strategy works in learning English vocabularies. Respondents said this strategy is also fun to do so that they can memorize fast a word through its semantic feature and a word and synonymous word or a word with similar feature. Here are examples or respondents' description about *brocolli, stir fry, wok,* and *mutton*.

3 or more features (18 people)	Broccoli contains A, has higher calories than cauliflower, has strong and greener flavour
	Stir fry is continuously toss in pan, that needs medium to high heat, and use small amount of oil
2 features (27 people)	Wok originates in China, bowl-shaped pan
	Mutton is meat of sheep and older than lamb

CONCLUSION

This strategy works in teaching and learning English vocabulary in cookery terms. From the test, the ability to describe some words about ingredients, kitchen utensils (frying pan, wok, and sauce pan), and how to cook (boil, poach, fry, stir fry, sauté). We distinguished into two categories; the ones who are able to describe terms with 2 specific features (18 people/40%) and the ones with 3 or more specific features (27 people/60%).

REFERENCES

Baldwin, 2009. On Target : Strategy to Build Student Vocabulary. Plaza Boulevard, Rapid City. Esa 6&7

Black, J. A., Champion, D. J., Koeswara, E., Salam, D., & Ruzhendi, A. (1992). Metode dan masalah penelitian sosial. Bandung: PT Eresco.

Hadi, Sutrisno. 2004. Metodologi Research I. Yogyakarta: Penerbit Andi.

Nagi, De Paula.2007. Issues and Context In teaching Young Learners. http//:www.philsef support.com

Nation, L.S.P. 2003. Testing and Teaching Vocabulary. Cambridge: Cambridge University Press

Pittelman, S.D. 1991: Semantic Features analysis : Classroom application. International Reading association

Scoot, Wendy A & Lisbeth H. Ytreberg. 1990. Teaching English to Children. New York: Longman Group Ltd.

Brown, H. Doughlas. 1994. Teaching by Principle : An Interactive Approach to Language Pedagogy. New Jersey : Prentice Hall RegentsBrown
Natsir, Ratu Yulianti. 2016. Developing Student's Vocabulary through Semantic Feature analysis at the Second Grade Students at SMPN 2 Sungguminasa Gowa. Jurnal Persfektif. 1(2).118-126
Utami, Gek Wulan Novi. 2018. Pemaknaan Verba Bahasa Inggris dan Upaya Peningkatan Pengajaran dan Pembelajaran Verba. Jurnal TUTUR: Cakrawala Kajian Bahasa-Bahasa Nusantara. 4(1).77-82
Ador, Nadya. 2016, October 5. Bali to become the next big culinary capital. *Indonesia Expat*. Retrieved from https://indonesiaexpat.biz/featured/bali-become-countrys-next-biggest-culinary-capital/
Mahendra, Anggara. 2019, June 13. Ubud may be named global 'gastronomy destination'. *The Jakarta post.* Retrieved from https://www.thejakartapost.com/life/2019/06/13/ubud-may-be-named-global-gastronomy-destination.html

MARKET POTENTIAL OF CASCARA TEA FROM CATUR VILLAGE KINTAMANI BALI

Sarah Zeckel[1], Putu Chris Susanto[2*], Ni Made Diana Erfiani[3]
[1]Heilbronn University Germany; [2,3]Universitas Dhyana Pura
*chris.susanto@undhirabali.ac.id

ABSTRACT

The third-wave of coffee, the fascination of single origin coffee products, and the trend for sustainable production and consumption has brought about newfound interest in Cascara tea. Cascara derives from red coffee cherries, typically discarded in the coffee production process. However, with its zero-waste production concept, UUP Catur Paramitha in Kintamani region Bali collects the Arabica coffee cherries to be made into Cascara tea. This research aims to examine this by-product from the coffee production which was recently added to the product palette of can be marketed, particularly in Bali's growing café scene. Mixed methods were used to take a closer look is taken on the acceptance of the taste questioning of the intended target group as well as intended point of sales. From the study it is found that there is potential for the beverage in Bali's café scene found from acceptance of the taste by consumers and interest shown by the interviewed Baristas and restaurant managers. The challenge for the producers, then, is how identify and select the most potential market segments for this product and position Cascara tea among its competitors.

***Keywords**: Cascara tea, coffee, by-product, marketing, zero-waste*

INTRODUCTION

Coffee beans are the main yields of coffee production. There are, however, many other beneficial by-products. One of which is "cascara" also known as coffee cherry tea. It is derived from the dried fruit of the coffee plant, a by-product that is usually discarded after the coffee beans have been taken out. The coffee husks, peel and pulp comprise nearly 45% of the fruit [1]. Annually, approximately 25 million tons of coffee cherry skin is thrown away [2].

If preserved correctly, Cascara can be enjoyed as a herbal tea and is an ideal alternative source of caffeine for those who do not like the taste of coffee. If consumed correctly it provides health benefits, such as antioxidant properties and can therefore be a beneficial food ingredient. However, not all coffee cherries or husks can be made into cascara. Thoughtful planning and care is required when preserving the cherries for making cascara, thus potentially making this a specialized premium drink with various potential benefits.

The consumption coffee cherry tea dates back to the region where Ethiopia is today. After discovering the coffee plant Ethiopian herdsmen (*Kaldi*) began making caffeinated tea out of the fruit. Ever since, a drink made from the coffee fruit has been consumed in Yemen (called *Qishr*) and Ethiopia (called *Hashara*), while Cascara is also consumed in Bolivia under the traditional name of *sultana* [3].

Coffee cherry tea has been consumed as a tea even before the roasted coffee beans we know today were discovered. Historical records suggest that Ethiopians and Yemenis made a caffeinated drink out of the fruit ever since an Ethiopian herdsman discovered the plant [3]. Aida Batlle, a renowned coffee grower from El Salvador is responsible for the recent rise in popularity of Cascara Tea as well as for coming up with the name "Cascara" as it is known today—rather serendipitously as she sensed hibiscus and floral aromas one day when passing some husks that were drying in the sun [4]. At the time of this research, several large coffee chains in the U.S. are selling drinks based on the coffee cherry. Starbucks, for instance, is selling coffee which is sweetened with cascara syrup while competitors such as Stumpton Coffee Roasters and Blue Bottle Coffee added it as tea or carbonated drink to their menus [4]. In Germany, a caffeinated and carbonated drink called "Club Mate" based on mate tea has become popular in the recent decade. Some start-ups in Germany have seen similar potential for Cascara but faced difficulty due to an EU Food Safety Authorities classified the fruit of the coffee cherry as a novel food stating that the coffee cherry needs to be approved in a complex process before it can be used in production or trade in Germany [5]. Technically, cascara cannot be regarded as a "tea", since it is not made from tea leaves but rather classified as herbal infusion.

Catur village in the popular coffee-producing region of Kintamani Bali has been recognized for its production of Arabica coffee [6]. Recently, the Balinese coffee farmers organized under UUP Catur Paramitha has made an effort to create new products from the "waste" that emerges from the coffee production. After the extraction of the coffee bean, the red fruit (cherry) is dried and used for tea—i.e. "cascara" [7].

The current research aims to determine if cascara tea has a good market potential in Bali and Catur Village should further pursue the production of cascara tea by comparing efforts and expenditure of its production to potential profits. This study gains its findings through qualitative research method by conducting in depth interviews, tastings, and questionnaires with target groups. It also investigates if Catur has first or second-mover advantage in the production of Cascara Tea in Bali, or if any other plantations or coffee shops are already offering cascara in their menus. This research also investigates the current process of gaining Cascara in Catur Village and the possible scale of production as well as different brewing and serving methods of the tea.

METHODS

This study is a participatory action research conducted between March and June 2019. The data collected from the various research methods were analyzed with the help of a SWOT analysis, which focuses on the biggest strengths, weaknesses, opportunities and threats of introducing cascara tea produced in Catur, Kintamani in the Bali market. In the first stage, secondary research on the composition and potential health benefits of Cascara was conducted. In the second stage, a deep interview was conducted by the manager of UUP Catur Paramitha, Mr. I Gusti Ngurah Rupa, to gather information about the production procedure and the zero-waste philosophy behind the production of cascara tea in Catur. Additionally, interviews are conducted with several coffee shop managers and baristas to determine the market potential for Catur's Cascara Tea in Bali's coffee shops/cafés. The interviews were held in the respective place.

Subsequently, a Focus Group Discussion was conducted in conjunction with Cascara Tea tasting, involving 12 participants of the intended target group, which are frequent customers of Bali`s cafés, were gathered at "Kedai Bahasa" a small coffee shop in Batu Bolong Street in Canggu. Participants were guests of the café and members of Canggu Community Facebook group, ten of whom were foreigners and two locals. An unmarked sample of Cascara Tea was handed out to each participant together with a printed questionnaire designed to ask the respondents to rate the drink and to descriptively write down their initial reactions to the drink. The data was collected and analyzed using Excel spreadsheet. Following the tasting, the participants were also involved in a discussion about their reactions of the beverage and the market potential of Cascara Tea once they have learned more about this coffee by-product beverage.

FINDINGS AND DISCUSSIONS

Composition and Nutritional Content of the Coffee Cherry

Cascara is a caffeinated drink, although its caffeine content is significantly lower than a comparable amount of coffee. The amount of caffeine varies, much like coffee, since Cascara is a natural product and it depends on the species and geographical origin in which the coffee is produced. The caffeine content of a Cascara brewed with 20g/L that was steeped for 10 minutes came at around 111.4 mg/L, which compared to coffees

ISBN: 978-602-53420-4-2

in the range of 400-800 mg/L, Cascara only has around 12-25% the amount of caffeine as a comparable amount of coffee [8].

A 2012 study published in the British Journal of Nutrition shows significant increase in levels of brain-derived neurotrophic factors (BDNF) of the coffee fruit compared to coffee. BDNF is a protein in the human body involved in the development, maintenance and function of the central nervous system and various studies have shown a link between BDNF and certain health conditions, such as depression, obsessive-compulsive disorder, Alzheimer disease, dementia and Parkinson's disease [9]. Therefore, the coffee cherry can be considered as having antioxidant properties and beneficial for health if consumed.

Production Process in Catur

In an interview with the manager of UUP Catur Paramitha, Mr. I Gusti Ngurah Rupa explained how they came up with the idea of producing cascara and how the co-up produces it in Catur village. Bali is known for the origin of *luwak* coffee, claimed to be the most expensive coffee beans in the world. *Luwaks* are cat-like animals whose diet include the coffee cherry fruits. Since the beans are not digestible, they get discharged by the animals. Mr. Rupa reflected on why the *luwaks* might be eating the coffee cherry and determined that they must be consuming them for their nutritional benefits.

The berries selected for making cascara are handpicked and chosen by the following characteristics. Firstly, they pick those coffee cherries that are very ripe, meaning dark red in color. Secondly, only those fruits with a thick mucus/pulp are chosen to be processed into cascara tea. There are two types of processes to make cascara that are related to the two processes of coffee making, dry-processing and wet-processing. In Catur both processes are utilized.

Coffee pulp is the by-product obtained from the wet-processing of coffee. The coffee cherries are sorted and handpicked for those with a thicker skin. They are placed in a pulper machine where the skin and most of the pulp are mechanically removed. While the beans, which are still surrounded by a layer of mucilage and silver skin, continue to be processed to make coffee, the next step being "controlled" fermentation, the remains of the fruit are proceeded to dry in the sun for twelve to fourteen days to be used as cascara tea. The end product is called coffee pulp [1].

Coffee husk is the by-product obtained from the natural- or dry-processing of coffee. After careful selection, the fruit are washed in fresh water and thereupon dried indirectly in the sun by laying cotton sheets above them. The indirect drying process helps the preservation of the antioxidant properties of the coffee fruit, as explained by Mr. Rupa. The cherries are sun dried for approximately 24 days, in which natural fermentation takes place within the cherry and separates the bean from the husk (skin, pulp, mucilage and parchment). After the drying process it is crucial to sort the fruits again, since the coffee fruit is prone to mold. After sorting, the coffee husk is gained by putting the dried fruits in a huller machine [10].

Figure 1. Dried Cascara from Coffee Cherries

ISBN: 978-602-53420-4-2

For the purpose of this study, cascara was used in the form of coffee husk that was obtained from the dry-processing of coffee. According to Mr. Rupa, this version of Cascara has a more difficult process but it is better in quality and stronger in taste since the process is gentler. The coffee husk in Catur is lightly toasted for approximately five to eight minutes and ground for better preservation of the product and enhancement of the taste. The addition of some dried pandan-leaves adds a pleasant fragrance and a typical Balinese touch to the product. The finished loose tea is packaged in a plastic jar for smaller quantities (IDR 25,000.00) or by the kilo for IDR 75,000.00.

Consumer tasting

Subsequently, a focus group and consumer tasting session was held at a Café in Batu Bolong in the south of Bali, called "Kedai Bahasa". The participants were gained through various posts on Canggu community groups on Facebook. The participants were asked to taste the product and proceeded to fill out a questionnaire. The total number of participants was twelve people, of which seven were male and five were female. Ten out of the twelve were foreigners while two were local customers that joined the tasting. It was determined that all participants are frequent café visitors who visit a coffee shop or café in Bali once or more than once a week.

Most of the participants did not know what they were tasting, only four of the twelve participants knew that they were tasting Cascara tea and had previously been informed of the health benefits and the origin of the product. The participants gathered around a table while all received a glass of slightly cooled Cascara tea which had been brewed the previous day. The dried coffee cherry husks were steeped in hot water (approximately 90°C) for fifteen minutes in a ratio of one to ten (approximately one teaspoon to 100ml of water). The participants were asked not to converse with one another until they finished filling out the questionnaire.

The first question related to the taste of the beverage was for the consumers to describe the taste in their own words and mention what comes to mind when tasting it. Three participants correctly determined a fruity taste. Three participants called the drink refreshing and four participants mentioned a mild or light taste while two mentioned slight bitter notes. Two participants expressed that they tasted a mild spiciness. Other keywords that were dropped were: nutty, smoky, taste of dried plumbs, powerful cinnamon aftertaste.

To the question whether the beverage resembled anything they have tasted before five answered no while two said yes but were unsure of what it was and five expressed a resemblance to brown rice tea, red tea (*rooibos*), green tea and Mate tea which was mentioned twice. Mate tea is a caffeine rich south American infused tea drink made from yerba mate tea leaves [11]. A beverage that has also been marketed as a popular carbonated drink in Europe, especially Germany as previously mentioned.

The intensity was rated by seven consumers as just right while five considered it to be weak. The reason for this rating could lie in the fact that many of the consumers compare the intensity with that of coffee and cascara is less intense if compared to that. But since there is no specific or right method to making cascara the ratios and steep time can be adjusted by individuals to their liking.

Furthermore, the participants were asked to rate the beverage on the following characteristics: sourness, bitterness, sweetness and fruitiness. They were asked to rate these characteristics on a scale from one to five, one defined as "not at all" and five as "very". It revealed that fruitiness was rated highest with an average of 2,50 while sourness was rated the lowest at 1,33. Bitterness had an average rating of 1,92 while sweetness had an average rating of 1,83. That said, 75% of the participants claimed that they prefer unsweetened beverages to sweet ones. It showed that those who prefer sweetened beverages rated the sweetness at 1,33 while the 75% who prefer unsweetened beverages rated the sweetness higher at an average of 2,00 meaning they considered the beverage to have a bit of sweet taste.

ISBN: 978-602-53420-4-2

The participants were also asked to rate the uniqueness and quality of the product on the same scale that ranges from one ("not at all") to five ("very"). The average rating of the uniqueness was rated at 4,00 while the quality was rated at an average of 3,58, meaning the uniqueness and quality were highly regarded by the participants. The majority of participants (58,3%) were satisfied with the taste of the beverage, while 25% stayed neutral, one out of twelve was highly satisfied and one was dissatisfied with the taste of the beverage.

In terms of being mostly satisfied with the beverage only 41,6% answered that they would likely or highly likely purchase this product if in a coffee shop/café or restaurant. 50% answered that they were unsure while one person, that was dissatisfied with the product claimed it is highly unlikely they will purchase the beverage. Regarding the differences between those who knew and did not know about what they were tasting, no significant differences could be determined. There were better and worse perceived results from both groups.

After the questionnaire and tasting was conducted the content and ingredients of the beverage and the health benefits were revealed to all participants that did not know what they had tried. It revealed that none of the participants heard of Cascara or knew about its properties.

Expert Interviews

In addition to the interview with the producer of Cascara tea, a series of interviews with baristas and managers of cafés in Bali were alse conducted to further determine the potential of Cascara based beverages in Bali's café scene. Three café or restaurant managers and baristas were interviewed.

First, an interview was held with I Wayan Dedo Suraya Iagawa, a restaurant manager and head barista of "Duatiga". Duatiga is a Canggu-based café and restaurant located along the main strip of Jalan Pantai Berawa, close to the popular Finns Beach Club. When asked about the strategy and concept of Duatiga, Mr. Iagawa stated that Duatiga first opened in September of 2018 serving just coffee and smoothie bowls. Their strategy was to offer a promotion of free coffee for ten days. A month later they were ready to add food items to the menu, following the same strategy of offering free samples of eight of their food items to the customers. This determined that the customers resonated positively with Duatiga and their products and gained a rapture for the place.

For the purpose of this research a Cascara tea tasting was conducted with Iagawa. Prior to the meeting he has heard of Cascara but it was the first time for him to try the coffee-waste product. The Cascara tea was freshly brewed with the help of a French press by pouring hot water (approximately 90°C) over the loose tea in a French Press, because this allows the tea to float freely in the hot water to get the best taste and aroma. It was steeped for ten minutes, stirred and then the filter was pushed down. His initial reaction was that the tea had a rather weak flavor, because he considers himself as a coffee drinker which in comparison is has a much bitterer flavor. After a second taste when the flavor really unfolded he described sour and bitter characteristics with a note of sweetness. Mr. Iagawa believes that cascara tea could be a popular new menu item and would go about advertising for it in the same way as he had with coffee during the opening week, by giving out some free samples for customers to try.

From review of literature and previous research, it was determined that there is no specific or "correct" method to brewing cascara tea. However, Mr. Iagawa specified that when introducing a new beverage in a coffee shop/ café or restaurant, consistency is key. Therefore, a specific brew needs to be determined for the method, ratio, and temperature. These need to be written out and shared with all staff responsible for making the beverage to ensure consistency with customers. It is also crucial for the quality of the Cascara tea from Catur to stay consistent. Duatiga is also in the works of offering more retail products to be sold at the location such as the coffee beans they use for the house blend, the equipment for their different brewing methods (French press,

ISBN: 978-602-53420-4-2

Vietnamese drip etc). Mr. Iagawa believes Cascara tea could be a valuable addition to the range.

The second interview was held with Edi Sulawa, a restaurant manager and head barista of "SatuSatu Coffee". SatuSatu was opened in 2015 thanks to the Sudana family, one of Bali's well known coffee producers. The family owned coffee plantations located in Luwak village, Belok, Sidan, Petang and Badung that have been operating since 1985 focusing on producing coffee naturally. Their café is popular for the great coffee they serve and their simple but delicious food.

As with Mr. Iagawa, a simple tasting was conducted with Mr. Sulawa. The method of preparation coincided as well. Even though he had already tried Cascara before, he was pleasantly surprised by the good taste and quality of the Cascara tea from Catur. If the quality can be held consistent, he believes that the beverage can become popular among customers. In his opinion, the customers would likely purchase the beverage if correctly marketed and attention was brought to it. This means flyers, table displays or special offer on menu board can be used as aids. Attention needs to be brought to the origin of the tea and what it is exactly to serves as a unique selling proposition.

Regarding the selling price, Sulawa would suggest the following strategy: In Bali tea in cafés is generally sold at a lower price than coffee. At SatuSatu, currently an assortment of teas is sold in the price range of IDR 15,000.00 to IDR 20,000.00 while coffee prices range between IDR 18,000.00 and IDR 30,000.00. Since Cascara can be considered and marketed as a specialty tea he suggested to set the price at the higher end of the tea price range at IDR 20,000.00. However, he suggested to keep the price lower than coffee as most people that come to the café to consume coffee and are less likely to try a new item if the price is higher than a beverage they already desire and originally came for. When proven to be a popular among the customers a raise in price can be considered. The price of the cascara from Catur is relatively low (IDR 75,000.00 per kilo) and the only other necessary ingredient to make a basic version of the beverage is water. This is why it is nonetheless a profitable item at a lower price.

A third interview was held with Christian Tjahyadi. He has been working as a barista for "Kedai Bahasa" for two years. Kedai Bahasa, compared to the other two cafés, is a small coffee shop with just around 15 seats that focuses on selling beverages. Their food options are limited to pastries from surrounding bakeries in Canggu. Therefore, the approach of selling Cascara should be different from the other two. According to Mr. Tjahyadi, Cascara can be offered as a special offer at Kedai Bahasa. Potentially in combination with a promotion like a set menu of one pastry and one serving of Cascara for a set price. Since the concept is more beverage oriented, different varieties of Cascara could be offered such as cinnamon or ginger infused Cascara tea.

SWOT Analysis

Subsequently, a descriptive SWOT Analysis was conducted. SWOT Analysis refers to an analysis of strengths, weaknesses, opportunities and threats of introducing Cascara Tea as a new product in Bali's café scene. The results have been found through the previously mentioned expert interviews, tasting and questionnaire as well as from the general information on cascara found in the through various literatures.

The main strength of the product lies in the taste. The tasting and results of the questionnaire showed that the taste of the tea made from Cascara was generally well received even though the participants were not yet aware of the beneficial health properties of the product. This therefore shows that once the product is known it has high potential for becoming a popular beverage item on the menu. Considering the health benefits of the tea, which is another important strength, one can market the beverage.

Furthermore, currently not many cafés in Bali are serving beverages base on cascara tea. The coffee shop and roaster "Seniman" in Ubud is one of them. Cascara can consequently be marketed as a new product because it is still an unknown beverage determined by the fact that none of the participants had heard of it prior to the tasting. This could be considered as a weakness but if utilized correctly UUP Catur Paramitha can use this fact as an opportunity to their advantage and sell their product in a Business to Business (B2B) format. Yet they must consider a very significant threat, which is the fact that it can easily be replicated by other coffee producers and may cafés already have connections to producers and suppliers. Strategically, it would be beneficial for Catur to rely on first mover advantage and try to create a brand association of Cascara and Catur.

Another advantage of Cascara tea is that it coincides with the rising trend for sustainable consumption in regards of it being a by-product of the coffee making process that is usually discarded in traditional coffee production. From observations Bali and cafés on the island are trying to offer more sustainable solutions in regards to waste management and consumers resonate with the trend. If the beverage catches on in Bali´s coffee scene one issue and weakness is that it is just a by-product of the more valuable commodity of coffee which is why production is less likely to be adjusted to the advantage of Cascara rather than coffee. It might affect consistency of the product.

Table 1. SWOT Analysis of Cascara Tea from Catur

STRENGTHS	WEAKNESSES
- Pleasant taste - Antioxidant properties - New product - Low price - Rare to find in Bali's cafés - Trend of "Zero-Waste"	- Availability (not year-round) - Relatively unknown - Consistency in quality - Recognized just as a by-product
OPPORTUNITIES	**THREATS**
- Specialty Product - B2B - First mover advantage	- If becomes popular, easy to copy - Cafés will ask their coffee supplier to make cascara

CONCLUSION

Cascara tea is not a new product, as it has been around for a long time. But with the new wave of coffee and the fascination of origin and trend for sustainable productions it is becoming more popular around the world. In Bali, UUP Catur Paramitha is one of the first coffee producers to make the tea from the coffee fruit. This research concludes that there is a large potential for Catur to become positively associated with Cascara tea. For this to happen it would need to be marketed properly mostly in business to business way. Through the interviews held with baristas and restaurant managers in three of Canggu's popular locations it was determined that there is an interest for them to sell the product. The target group of frequent café guests in Bali that was questioned to find out the acceptance of taste of the tea revealed that there was an interest and possible future purchasers of the beverage.

To conclude, the Cascara tea from Catur has an optimistic future as a new trend beverage in Balis café scene especially with the rising trend of sustainable offerings. The challenge will lie in the method of persuading cafés/coffee shops and restaurants to purchase the product from Catur rather than producing it themselves. While currently they are still in advantage due to the fact that not many producers have caught on with the trend. It is therefore recommended to act upon this advantage as soon as possible and advised that further marketing strategies are implemented to create awareness of their production and quality. Having said that, it should be considered possibly hire someone as a salesman to bring the product to the points of sale. Further research should be made to determine the most suitable marketing strategy.

REFERENCES

[1] Esquivel, P., & Jiménez, V. M. (2012). Functional properties of coffee and coffee by products. *Food Research International, 46(2)*, pp. 488-495.

[2] Ceuticals, F. (2019). *Furture Ceuticals*. Retrieved April 27, 2019, from https://www.futureceuticals.com/coffeeberry-cascara.

[3] Giuliano, J. (2016, November 3). *What is Cascara? – Exploring Coffee Cherry Tea*. Retrieved June 1, 2019, from Brewing Coffee Manually: http://www.manualcoffeebrewing.com/what-is-cascara-how-to-brew-is-and-where-to-get-it-exploring-coffee-cherry-tea/.

[4] Perez, M. G., & Patton, L. (2018). *Coffee Waste Is Now Fetching a 480% Premium Over Coffee Itself*. Retrieved June 1, 2019, from https://www.bloomberg.com/news/articles/2018-05-22/coffee-waste-is-now-fetching-a-480-premium-over-coffee-itself.

[5] Ksienrzyk, L. (2017, December 13). *Feiert Kaffeekirschen-Limo 2018 ihr Comeback?* (N. Food, Editor) Retrieved June 30, 2019, from https://ngin-food.com/artikel/limonade-kaffeekirsche-selo-cascara-cate-novel-food/.

[6] Susanto PC, Adiada AAK, & Suyasa NLC. 2018. Identification of tourism potentials in Catur village Kintamani. *Proceedings of Seminar Nasional Teknologi, Sains, dan Sosial Humaniora (SINTESA). Pp.* 527-537. http://dx.doi.org/10.36002/snts.v0i0.524

[7] Suyasa NLC, Setiawan IMR, Regina M. 2018. Kopi arabika jempolan Catur village, Kintamani: Product and promotional mix analysis. *Proceedings of Seminar Nasional Teknologi, Sains, dan Sosial Humaniora (SINTESA).* Pp. 391-396. http://dx.doi.org/10.36002/snts.v0i0.507

[8] Moldvaer, A. (2013). *Cascara and Caffeine*. Retrieved June 1, 2019, from http://www.squaremileblog.com/2013/08/30/cascara-and-caffeine/.

[9] Reyes-Izquierdo, T., Nemzer, B., Shu, C., Huynh, L., Argumedo, R., & Keller, R. (2012, October 30). Modulatory effect of coffee fruit extract on plasma levels of brain-derived neurotrophic factor in healthy subjects. *British Journal of Nutrition*, pp. 1-6.

[10] Murthy, P. S., & Naidu, M. M. (2012, June 1). Sustainable management of coffee industry by-products and value addition - A review. *Resource, Conservation and Recycling*, pp. 45-58.

[11] Petruzzello, M. (2019). *Mate Beverage*. Retrieved June 30, 2019, from Encyclopædia Britannica: https://www.britannica.com/topic/mate-beverage.

INTRODUCTION TO SCIENCE IN EARLY CHILDHOOD WITH COOPERATIVE LEARNING MODEL JIGSAW TYPE ASSISTED WITH CONCRETE OBJECTS

Christiani Endah Poerwati[1], I Made Elia Cahaya[2], Ni Made Ayu Suryaningsih[3]
[1,2,3]Universitas Dhyana Pura
christianiendah@undhirabali.ac.id

ABSTRACT

The introduction of science in early childhood is made possible through the teaching of simple concepts and appropriate learning methods. Jigsaw type cooperative learning model can be applied in the introduction of science because the child's age is a social age, children like to work with peers. Concrete objects help children to understand various concepts of science because their cognitive abilities have only just entered the pre-operational stage. This study aims to determine the effectiveness of concrete jigsaw type cooperative learning models assisted in the introduction of science in early childhood. The study was conducted in PAUD Tunas Mekar II Dalung children group B semester 1 of 2019/2020 school year. The research method is a class action with a four-stage procedure, namely: 1) The planning stage, 2) The stage of taking action, 3) The stage of development, 4) The stage of reflection. The study was conducted in two cycles. The data collection method in this study was through observation using rubric guidelines to record data about scientific abilities demonstrated by early childhood. Data on children's scientific ability improvement were analyzed descriptively with the help of assessment instruments. Children's scientific ability at the initial observation of the percentage of completeness was only achieved by 5 children (20.83%), the first cycle was 10 children (41.67%), and the second cycle was 20 children (83.33%). Jigsaw type cooperative learning models assisted with concrete objects can improve science skills in early childhood

Keywords: *Early Childhood, Introduction to Science, Jigsaw, Concrete Objects*

INTRODUCTION

Human resources who master adequate science and technology are the main capital of the nation to be able to compete in the global world. Education is an effort so that the nation's children can be equipped with knowledge, skills and develop their potential. Preparing potential nation generations with quality education must begin with early childhood education. Early childhood has characteristics and potential that need to be optimally developed with a variety of stimulation through a variety of activities and learning.

Achievements in the development of learning objectives in early childhood include in the fields of religion and morals, cognitive, language, physical-motor, social emotional, and arts. Cognitive development includes mathematical and scientific abilities. Mathematics and science as subjects that are considered difficult at the next level of education can be introduced to early childhood. Specifically, science can be introduced with simple concepts and are connected with everyday life so that it does not cause scourges as subjects that are difficult to learn.

The introduction of science in early childhood needs to be designed through fun and meaningful activities through appropriate methods. The cooperative learning model can be applied to early childhood education, because this age is often referred to as the social age, that children love to socialize and cooperate with peers. Cooperative learning model is a series of children's learning in certain groups to achieve the learning objectives formulated [1]. This learning model has several types including Student Team

Achievement Division (STAD), Expert Team (Jigsaw), Group Investigation (Group Investigation), Think Pair Share (TPS), Numbered Head Together (NHT), and Team Games Tournament (TGT). One type of cooperative learning model that can be applied to early childhood is the Jigsaw II type.

Jigsaw type cooperative learning model allows applied to early childhood because in this type of children are divided into several heterogeneous groups, both in ability and sex, so that the nature of the group formed is aligned. Whereas the expert group is chosen from the group of children who have prominent cognitive abilities, so that these children will be able to become a team of experts for the group. This is supported by previous research entitled "The Implementation of Cooperative Learning Models of Jigsaw Type Assisted by Media of Picture Number Cards to Enhance Cognitive Development of Kindergarten Children Widhya Brata Mengwi" [2], showing the average percentage of cognitive development of group B semester students II in Widhya Brata Mengwi Kindergarten in the first cycle of 62.19% was in the low category and the average percentage of cognitive development of children in group B in the second semester in Widhya Brata Mengwi Kindergarten in the second cycle 87.5% were in the high category. Whereas in this study more specifically measured children's scientific abilities through experimental activities assisted by concrete objects in groups.

METHODS

This research design uses action research defined as any systematic research carried out by teachers, education providers, counseling teachers / educational advisers, or others who have an interest and interest in the learning process or environment (PBM) with the aim of gathering information about how the school works, how to teach teachers, and how their children learn [3]. In general, the version of the action research process consists of a four-stage procedure (as also described in Chart 3.1), namely:

1. The planning stage
2. Stage of action
3. Development stage
4. Reflection stage

The action research model starts with a main problem or theme. These models include observation or supervision of existing practices, followed by collection and synthesis of information with data. Finally, certain actions are taken, which then serve as a foundation for the next stage of research [3]. This process is described as a process of "observation-act-observation-adjustment", and then repeat it. The process of action research, with its cyclical and spiral character.

Method of Collecting Data

Data collection methods used in this study are through observation. The process of collecting data through this observation technique uses a rubric guide to record data about the social-emotional abilities shown by children in concrete object-assisted science experiment activities with a Jigsaw II type cooperative learning model. Observations can be carried out with observation guidelines (format, checklist), field notes, daily journals, class activities, depictions of interactions in, electronic recording devices or class mapping. The recording process can be assisted by using instruments.

Data Analysis Method

Data on increasing children's scientific abilities were analyzed descriptively, namely by observing the activities carried out by children with the help of assessment instruments. The success of children in improving science abilities is categorized into five categories, namely very less, less, enough, good and very good. How to calculate it is to find an average, at least meet the good categories. Activities that arise during the learning process in relation to the implementation of actions can be calculated with the guidance of observations carried out. The level of children's scientific ability can be determined by comparing the percentage of mastery into the conversion to the five-scale Benchmark Reference Assessment (PAP), which is listed in the following Table 1.

Table 1. Conversion Guidelines for National Benchmark Reference Assessment

Percentage of Mastery	Category	Mastery
90 - 100	Very high	Completed
80 - 89	Height	Completed
65 - 79		Completed
55 - 64	Low	Not Completed
00 - 54	Very low	Not Completed

Source: Agung, 2014 [4]

The criterion for success in this study is to increase children's scientific ability through a concrete object-type Jigsaw II cooperative learning model. Indicators of success in this study if at least 80% of the number of students meet the criteria of being.

FINDINGS AND DISCUSSIONS

In the initial stages of this study observations were made of children's scientific abilities while following the conventional learning process. It is known that early childhood scientific abilities are still low. The percentage of completeness was only achieved by 5 children (20.83%), with a moderate category. as many as 4 children (16.67%) and high category achieved 1 (0.42%), there are still 19 children (79.17%) still in the low and very low categories. Then it needs to be given a follow-up as an effort to develop scientific abilities in early childhood, namely through the type of Jigsaw II cooperative learning model assisted by concrete objects.

Cycle I

1. Planning

Preparation for the first cycle includes the Weekly Activity Plan (RKM), Daily Activity Plan (RKH), learning scenarios, learning media, science monitoring instruments and the science ability assessment rubric. Weekly Activity Plans (RKM), Daily Community Plans (RKH), and learning scenarios are designed and arranged according to the themes used in Tunas Mekar I PAUD, Dalung. Cycle I was planned for 2 times science experiment activities assisted by concrete objects, each activity was carried out based on a learning scenario. The research process uses the method of observation at each meeting to assess the level of children's scientific ability.

2. Implementation of Actions

Cycle I was carried out in accordance with prepared learning scenarios. Efforts were given to improve science skills in early childhood, namely through the application of Jigsawa II type cooperative learning models assisted by concrete objects in the learning process.

3. Results of Monitoring Children's Science Capabilities

Improving children's scientific abilities is done through the application of Jigsaw II type cooperative learning models. In detail the results of observations of science ability with the application of Jigsaw II type cooperative learning models in cycle I can be considered in Table 2, which indicates an increase in completeness of early childhood science abilities in Cycle I. This is indicated by the total completeness of 12 children (50%).

Table 2. Child Science Ability Data in Cycle I

No	Subject	Indicators of Early Childhood Science				Amount	Average	Percentage	Category	Completeness
		A	B	C	D					
1	A	3	3	3	3	12	3,00	60,00	Low	Not Complete
2	B	4	3	3	3	13	3,25	65,00	Medium	Complete
3	C	4	3	3	4	14	3,50	70,00	Medium	Complete
4	D	3	2	3	2	10	2,50	50,00	Very Low	Not Complete
5	E	4	4	4	5	17	4,25	85,00	High	Complete
6	F	3	3	3	3	12	3,00	60,00	Low	Not Complete
7	G	4	3	3	3	13	3,25	65,00	Medium	Complete
8	H	3	3	3	4	13	3,25	65,00	Medium	Complete
9	I	3	2	2	3	10	2,50	50,00	Very Low	Not Complete
10	J	4	4	4	4	16	4,00	80,00	High	Complete
11	K	4	3	4	4	15	3,75	75,00	Medium	Complete
12	L	4	3	2	4	13	3,25	65,00	Medium	Complete
13	M	4	4	4	4	16	4,00	80,00	High	Complete
14	N	2	2	2	3	9	2,25	45,00	Very Low	Not Complete
15	O	4	4	4	4	16	4,00	80,00	High	Complete
16	P	2	2	2	3	9	2,25	45,00	Very Low	Not Complete
17	Q	3	2	3	3	11	2,75	55,00	Low	Not Complete
18	R	3	3	2	2	10	2,50	50,00	Very Low	Not Complete
19	S	4	3	4	4	15	3,75	75,00	Medium	Complete
20	T	2	2	2	2	8	2,00	40,00	Very Low	Not Complete
21	U	3	3	2	3	11	2,75	55,00	Low	Not Complete
22	V	2	2	2	2	8	2,00	40,00	Very Low	Not Complete
23	W	3	3	3	4	13	3,25	65,00	Medium	Complete
24	X	3	3	3	3	12	3,00	60,00	Low	Not Complete
Min								40,00		
max								85,00		
mean								61,67		
median								62,50		
modus								65		
standar dev								13,242444		

4. Development and Reflection

The monitoring results as described above show that in general the Science abilities of PAUD Tunas Mekar I Dalung children have increased. This is shown from changes in children's scientific abilities at the time of initial observation with the implementation of cycle I. In the following diagram shows the percentage of mastery of science abilities at the initial observation and cycle 1.

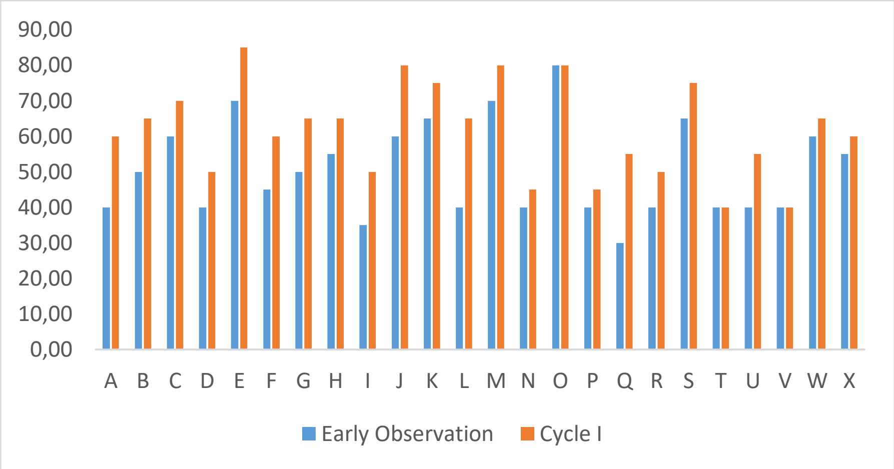


Figure 1. Graph Comparison of Early Childhood Science Abilities in Early Observation and Cycle I

ISBN: 978-602-53420-4-2

In the picture above, we can see an increase in children's scientific abilities. At the time of initial observation, only 5 children (20.83%) achieved completeness. After participating in learning with the Jigsaw II cooperative learning model, there was an increase in completeness by 12 children (50%) in the medium and high categories. While 12 children have not been completed (50%) are still in the very low category as many as 6 children and 6 children in the low category.

Based on the results of reflection and the obstacles encountered, it is necessary to make efforts to optimize the supporting factors for the implementation of the first cycle, the second cycle needs to be carried out with consideration of the percentage of completeness of children's scientific ability has not reached 80% and the need for some improvement of activities so that the obstacles in the first cycle can handled well and children's scientific abilities in cycle II can be improved.

Cycle II

1. Planning

Preparation in cycle II as well as cycle I includes the Weekly Activity Plan (RKM), Daily Activity Plan (RKH), learning scenarios, learning media, science monitoring instruments and rubric of science ability assessment rubrics. Weekly Activity Plans (RKM), Daily Community Plans (RKH), and learning scenarios are designed and arranged in accordance with the theme used at Tunas Mekar II Dalung Kindergarten. Cycle II is planned for 2 science project activities, each activity is carried out based on a learning scenario. The research process uses the method of observation at each meeting to assess the level of children's scientific ability.

2. Implementation of Actions

The implementation of the second cycle action is carried out in accordance with the prepared learning scenario. Efforts are given to improve science skills in early childhood, namely through the application of Jigsawa II type cooperative learning models assisted by concrete objects in the learning process.

3. Results of Monitoring Children's Science Capabilities

Based on the results of the first cycle, in general there is an increase in the ability of science in early childhood, but there are still children who have low categories. So as to improve cognitive abilities of early childhood, the application of Jigsaw II type cooperative learning models resumed in cycle II. Next in the picture the learning process is shown by the Jigsaw II type of cooperative learning model in cycle II. In detail the acquisition of observations on the cognitive abilities of early childhood in cycle II can be considered in the Table 3. In the table, regarding the level of completeness of the ability of science of each child in Cycle II, seen an increase after participating in the learning process with a type of Jigsaw II cooperative learning model. This is indicated by the increasing number of completeness of cognitive abilities of early childhood, which is 20 children (83.33%). Four children (16.66%) still have not reached the specified level of completeness.

Table 3. Child Science Ability Data in Cycle II

No	Subject	Indicators of Early Childhood Science				Amount	Average	Percentage	Category	Completeness
		A	B	C	D					
1	A	4	3	3	3	13	3,25	65,00	Medium	Complete
2	B	4	3	3	3	13	3,25	65,00	Medium	Complete
3	C	4	3	3	4	14	3,50	70,00	Medium	Complete
4	D	4	3	3	3	13	3,25	65,00	Medium	Complete
5	E	4	4	4	5	17	4,25	85,00	High	Complete
6	F	4	3	3	3	13	3,25	65,00	Medium	Complete
7	G	4	3	3	3	13	3,25	65,00	Medium	Complete
8	H	4	3	3	4	14	3,50	70,00	Medium	Complete
9	I	4	3	2	3	12	3,00	60,00	Low	Not Complete
10	J	4	4	4	4	16	4,00	80,00	High	Complete
11	K	4	3	4	4	15	3,75	75,00	Medium	Complete
12	L	4	3	2	4	13	3,25	65,00	Medium	Complete
13	M	4	4	4	4	16	4,00	80,00	High	Complete
14	N	3	3	2	3	11	2,75	55,00	Low	Not Complete
15	O	4	4	4	4	16	4,00	80,00	High	Complete
16	P	4	3	2	4	13	3,25	65,00	Medium	Complete
17	Q	4	3	3	3	13	3,25	65,00	Medium	Complete
18	R	3	3	2	2	10	2,50	50,00	Very Low	Not Complete
19	S	4	3	4	4	15	3,75	75,00	Medium	Complete
20	T	4	3	3	3	13	3,25	65,00	Medium	Complete
21	U	4	3	3	3	13	3,25	65,00	Medium	Complete
22	V	2	2	2	2	8	2,00	40,00	Very Low	Not Complete
23	W	3	3	3	4	13	3,25	65,00	Medium	Complete
24	X	4	3	3	3	13	3,25	65,00	Medium	Complete
Min								40,00		
max								85,00		
mean								66,67		
median								65,00		
modus								65		
standar dev								9,854007		

4. Development and Reflection

The results of monitoring of the activities of the second cycle of children's cognitive abilities have increased significantly as shown in the following figure 2.

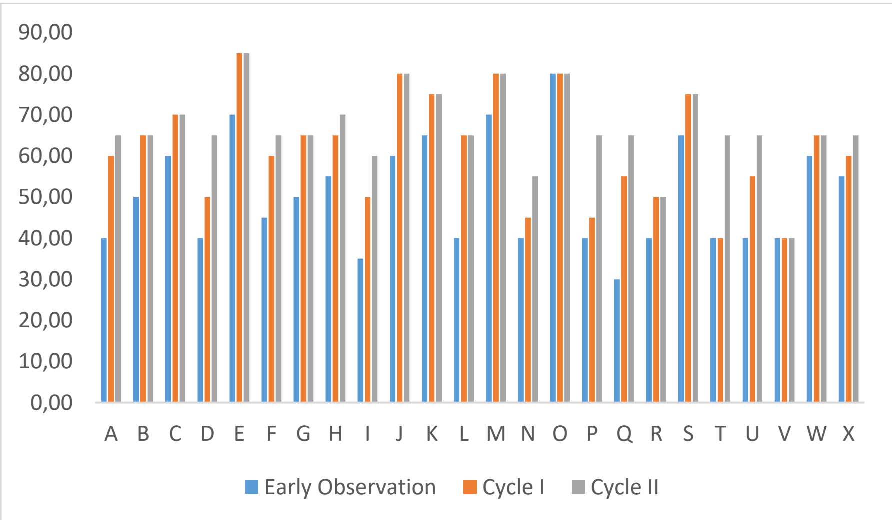


Figure 2. Graph Comparison of Early Childhood Science Abilities in Cycle I and Cycle II

ISBN: 978-602-53420-4-2

Completeness of children's scientific ability has reached 83.33% (an increase of 33.33%) from the first cycle that is as many as 20 children have reached mastery in the category of medium (16 children) and high (4 children), leaving 2 children in the low category and 2 children so that the percentage of mastery of unfinished mathematical abilities (16.67%). When compared to the first cycle there were 7 children in the low to moderate category, 2 children in the very low category increased to the medium category, 3 children in the medium category increased to the high category, 4 children in the high category and 8 children in the medium category were in the very category same. Based on the category of children's cognitive abilities can be seen in comparison from initial observations, cycle I and cycle II, as in the following figure.

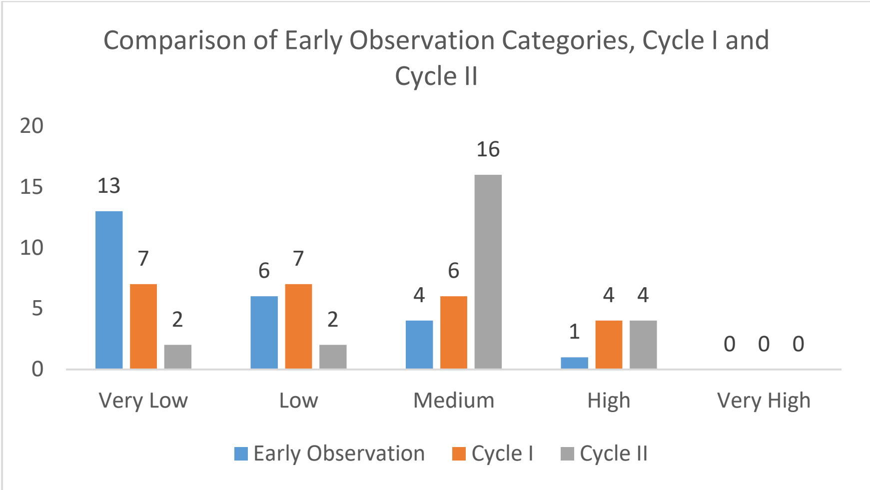


Figure 3. Graph of Early Childhood Science Capability Categories, Cycle I and Cycle II

The application jigsaw II type cooperative learning models assisted with concrete objects can improve early childhood science abilities. This can be seen from the development of abilities, from the time of initial observation to the end of cycle II. In Figure 5.3 below, we can observe a comparison chart of cognitive abilities of early childhood from the initial observation to the second cycle.

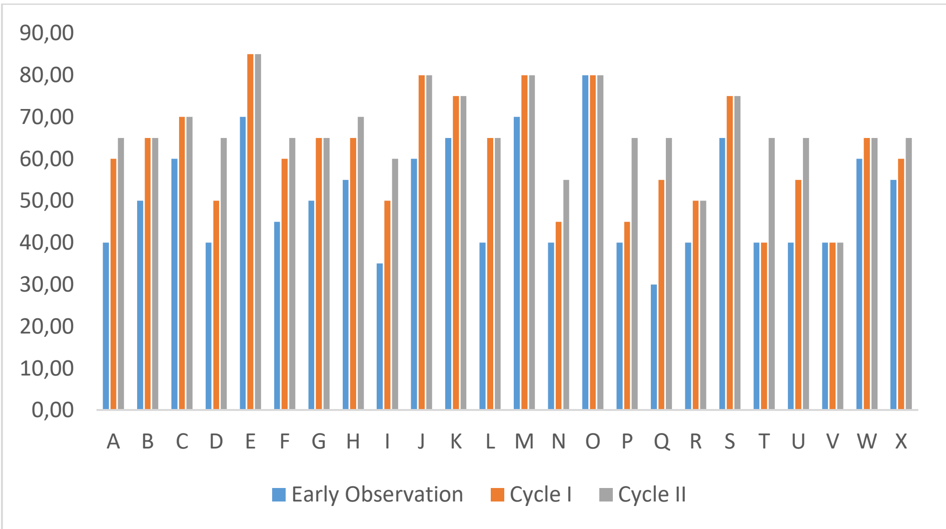


Figure 4. Graphic Comparison of Early Childhood Science Abilities in Early Observation, Cycle I, and Cycle II

ISBN: 978-602-53420-4-2

In the graph, it can be seen that there is an increase in early childhood science abilities, before and after participating in learning with the Jigsaw II type cooperative learning model. It also affects the increased completeness of early childhood science abilities.

CONCLUSION

The results showed an increase in children's scientific abilities that were analyzed descriptively with the help of assessment instruments. Children's scientific ability at the initial observation of the percentage of completeness was only achieved by 5 children (20.83%), the first cycle was 10 children (41.67%), and the second cycle was 20 children (83.33%). Jigsaw type cooperative learning models assisted with concrete objects can improve science skills in early childhood. The Jigsaw II type of cooperative learning model in this study is limited to only knowing improvements to children's scientific abilities, without regard to other variables or levels of other developmental achievements. For the sake of the perfection of this research it is recommended to conduct further research by involving other variables such as language skills, social emotional, motor, creativity and others.

REFERENCES

[1] Hamdani. 2011. Strategi Belajar Mengajar. Bandung: Pustaka Setia.
[2] Sumyadewi, Ni Luh, dkk. e-Journal PG-PAUD Universitas Pendidikan Ganesha Jurusan Pendidikan Guru Pendidikan Anak Usia Dini. Volume 2 No 1 Tahun 2014. Penerapan Model Pembelajaran Cooperative Learning Tipe Jigsaw Berbantuan Media Kartu Angka Bergambar Untuk Meningkatkan Perkembangan Kognitif Anak TK Widhya Brata Mengwi.
[3] Mertler, Craig A. 2011. Action Research, Mengembangkan Sekolah dan Memberdayakan Guru, Yogyakarta: Pustaka Pelajar.
[4] Agung, A.A Gede. 2014. Metode Penelitian Pendidikan. Malang: Aditya Media Publishing.