

e-ISSN : 2615-3149

ADRI

Perkumpulan
AHLI & DOSEN
REPUBLIK INDONESIA

International Journal of Scientific Conference and Call for Papers

IJSCCP	Vol. 1	No. 1	Januari 2018	Page 1-xx	e-ISSN : 2615-3149
--------	--------	-------	-----------------	--------------	--------------------

Published by
ADRI (Perkumpulan Ahli dan Dosen Republik Indonesia)
Jalan SMA Negeri 14, Cawang RT/01/RW.09, Jakarta Timur 13630,
(Kantor Kopertis 3 DKI Jakarta)

International Journal of Scientetific Conference and Call for Papers

International Journal of Scientific Conference and Call for Papers publication of scientific articles of research results of ADRI Members presented at the International Conference organized by ADRI. The field of science consists of; (1) Humanities, Social, Law, and Religious; (2) Social Science and Communication; (3) Natural Sciences, Engineering, Architecture, Design, and Planning; (4) Forma; Sciences, Information Science, and Agriculture; (5) Business and Management; (6) Education; and (7) Health. Published every 3 month, and first published in conjunction with the 16th ADRI International Conference in Samarinda, Kalimantan Timur on 2021 January 2018.

Editorial Team

Editor-in-Chief : Dr. H. Achmad Fathoni Rodli, M.Pd. (Ketua DPP ADRI)

Managing Editor : Andi Mursidi (STKIP Singkawang, Indonesia)

Editorial Board/Reviewer:

Prof. Peter Newcombe, Ph.D. (University of Queensland Australia).

Prof. Seung Wook Kim. (Korea University, Korea Selatan).

Prof. Dr. Wahid Bin Razzaly (Universiti Tun Hussein Onn Malaysia, Malaysia).

Prof. Datuk H. Dr. Mohd. Dalimin, M.Sc. (UTM, Malaysia).

Prof. Assoc. Dr. I-Hsien Ting. (National University of Kaohsiung, Taiwan). Prof.

Assoc. Hunsu Punapayak. (Chulalongkorn University, Thailand).

Prof. Drs. Toho Cholik Mutohir, MA., Ph.D. (IKIP Mataram, Nusa Tenggara Barat)

Prof. Dr. H. Husain Dsyam, M.TP. (Universitas Negeri Makassar) Prof. Dr. R.

Partino (Universitas Cendrawasih, Irian Jaya).

Prof. Dr. Endry Boeriswati, M.Pd. (UNJ, Jakarta).

Prof. Dr. Ir. Suhardjono, M.Pd, Dipl.HE. (UNIBRAW, Jawa Timur)

Prof. Dr. Atmazaki, M.Pd. (Universitas Negeri Padang, Sumatera Barat)

Prof. Dr. Nasrudin Suyuti, M.Si. (UNU Sulawesi Tenggara)

Prof. Dr. Agus Soegianto, M.Sc. (UNAIR, Surabaya, Jawa Timur)

Prof. Dr. Ir. Suprijanto (ITS, Surabaya, Jawa Timur)

Prof. Dr. Masriam Bukit, M.Pd. (UPI Bandung, Jawa Barat)

Prof. Dr. Bambang Suprianto, MT. (UNESA, Jawa Timur)

Prof. Dr. Amat Mukhadis, M.Pd. (UNESA, Jawa Timur)

Prof. Dr. Madlazim, M.Si. (UNESA, Jawa Timur)

Prof. Dr. Bambang Yulianto, M.Pd. (UNESA, Jawa Timur)

Prof. Dr. Sarmini, M.Hum. (UNESA, Jawa Timur)

Prof. Dr. Ismet Basuki, M.Pd. (UNESA, Jawa Timur)

Prof. Dr. Abdul Muin Sibuea, M.Pd. (UNIMED, Sumatra Utara)
Prof. Dr. Herminarto Sofyan, M.Pd. (UNY, Yogyakarta)
Prof. Dr. Harapin Hafid, M.Si. (Universitas Halu Oleo, Kendari, Sulawesi Tenggara)
Prof. Dr. H. Sofyan Sauri, M.Pd. (UPI, Bandung, Jawa Barat)
Prof. Dr. Aunurrahman, M.Pd. (Universitas Tanjungpura, Pontianak, Kalbar)
Prof. Dr. Drs. Junaidi H. Matsum, M.Pd. (Universitas Tanjungpura, Pontianak, Kalbar)
Prof. Dr. Edy Tandililing, M.Pd. (Universitas Tanjungpura, Pontianak, Kalbar)
Prof. Dr. Drs. Eddy Yunus, ST, MM. (Universitas Dr. Soetomo, Surabaya, Jawa Timur) Prof.
Dr. H. Achmad Slamet, M.Si. (UNNES Semarang, Jawa Tengah)
Prof. Dr. H. Maman Surachman, M.Sc. (UNNES Semarang, Jawa Tengah) Prof.
Dr. Sugiyo, M.Si. (UNNES Semarang, Jawa Tengah)
Prof. Dr. Ir. Ramatullah Rizieq, M.Si. (UPB Pontianak, Kalbar)
Prof. Dr. Anna Permanasari, M.Si. (UPI, Bandung, Jawa Barat)
Prof. Dr. Suwatno, M.Si. (UPI, Bandung, Jawa Barat)

Dr. Andi Suhandi, M.Si. (UPI, Bandung, Jawa Barat)
Dr. Ibrahim Ingga, M.Ak. (UNTAG Surabaya, Jawa Timur)
Dr. M. Hasinuddin, S.Kep.Ns., M.Kep. (STIKES Ngudia Husada Madura, Jawa Timur)
Dr. M. Rif'at, M.Pd. (Universitas Tanjungpura, Pontianak, Kalbar)
Dr. Ahmad Yani T, M.Pd. (Universitas Tanjungpura, Pontianak, Kalbar)
Dr. Ardi Marwan, S.pd., TESOL. (POLNEP, Pontianak, Kalbar)
Dr. Adnan Mahdi (IAI Sultan Syafiudin, Sambas, Kalbar)
Dr. H. Wajidi Sayadi (IAIN, Pontianak, Kalbar)
Dr. Sajjo, ST., M.Kes. (UNTAG Surabaya, Jawa Timur)
Dr. Wida Kuswida Bhakti, S.Kep., M.Kes. (STIKES Muhammadiyah Pontianak, Kalbar)
Dr. Meithiana Indrasari, MM., ST. (Universitas Dr. Soetomo, Surabaya)
Deffi Ayu Puspito Sari, Ph.D. (Universitas Bakrie, Jakarta)
Dr. Siti Nurjanah, M.Pd. (Universitas Negeri Jakarta)
Dr. Yusnidar Yusuf, M.Pd. (UHAMKA, Jakarta)
Dr. Eri Sarimanah, M.Pd. (Universitas Pakuan, Bogor)
Dr. Rosida Tiurma Manurung, M.Hum. (Univ. Kristen Maranatha, Bandung, Jabar).
Dr. Surti Kurniasih (Universitas Pakuan, Bogor)
Dr. Abdul Halik, MM. (UNTAG Surabaya, Jawa Timur)
Dr. Sabran, SE., M.Si. (Universitas Kutai Kertanegara, Tenggarong, Kaltim)
Dr. Hj. Widyatmike Gede Mulawarman, M.Hum. (Unisitas Mulawarman, Samarinda, Kaltim)

IT Support Team

M. Ikhsan Setiawan (Universitas Narotama, Surabaya)
Muh. Ilham Baktiar (Universitas Negeri Makassar)
Muh. Barid Nizarudin Wajdi (STAI Miftahul Ula Nglawak Kertosono, Nganjuk)
Otto Fajarianto (IT ADRI)
M. Adi Prasnowo (UMAHA, Sidoarjo)

Agus Kurniawan (STKIP Singkawang) Ade
Setiawan (STKIP Singkawang)

Published by:

ADRI (Perkumpulan Ahli dan Dosen Republik Indonesia)

Publisher Address:

Jalan SMA Negeri 14, Cawang RT/01/RW.09, Jakarta Timur 13630
(Kantor Kopertis 3 DKI Jakarta) <http://ejournal.p-adri.org/index.php/ijscdp>

No. WA : +6281 2328 6867

Table Of Contents

Title	Page
The Effect Of Leadership And Motivation To Performance Of Education And Training Participants <i>Soedarto</i>	1-8
Influence of Corporate Credibility and Public Figure in Consumer Attitudes Toward Advertising and Brand (Survey on Consumer Motorcycles in Makassar) <i>Muhammad Aqsa, Salju, and M. Risal</i>	9-16
The Influence of Transformational Leadership, Organizational Fairness, Organizational Trust, Job Satisfaction to Organizational Citizenship Behavior (Study at Private Universities in East Kalimantan) <i>Sabran</i>	17-21
Improving Student's Social Science Learning Achievement Through Teams Games Tournaments Learning Method With Snake And Ladder Game At SDN 002 Sungai Pinang <i>Desi Hermawati</i>	22-26
The Writing Ability of Early Childhood at Early Childhood Education (PAUD) in Balikpapan City <i>Endang Dwi Sulistyowati and Akhmad Samsuri</i>	27-31
The Implementation of School-Based Management at The State Junior High School in Samarinda <i>Zaenab Hanim and Masyni</i>	32-36
Violence to Senior High School Students in The City of Abepura <i>H. R. Partino</i>	37-42
Correlation Between Harvard Step Test Examination and Learning Achievement Index of Medical Faculty Mulawarman University's Student <i>Hary Nugroho, Haeruddin, and Herni Johan</i>	43-46
Strengthening Professional Commitment By Reinforcing Self Concept and Creativity of PAUD Teacher <i>Henny Suharyati, Sumardi, and Winda Susilawati</i>	47-49
Professional Competence Enhancement of Mathematics Teachers of Senior High School in Balikpapan <i>Husnul Khotimah</i>	50-54
The Effect of Headmaster Supervision and Teacher Satisfaction toward SMP Negeri 2 Sendawar Kutai Barat Teachers Performance <i>Laili Komariyah, Bernadetha Gita, and Wahyudi</i>	55-59
The Effect of Using Multimedia Web-Based Learning to Student's Learning Outcomes on The Pattern Making Subject in Vocational High School <i>Luh Wina Sadevi, Supari Muslim, and Rita Ismawati</i>	60-67
Improving Reading Comprehension of Third Semester Students of ABA Balikpapan Academic Year 2016/2017 through Concept Mapping <i>Muhammad Rochman and Herri Susanto</i>	68-73
Influence of Learning Media Based On Adobe Flash Professional to Psychomotor Domain Learning Outcomes on PLC Courses Viewed From Level of Creative Thinking Student	74-80

<i>Nahindi Putra Gitama, Supari Muslim, and Bambang Suprianto</i> Social Competence of Senior High School Mathematics Teachers at Musyawarah Guru Mata Pelajaran (MGMP) Forum in Balikpapan, East Borneo, Indonesia	81-84
<i>Suci Yuniarti</i> Analysis Of Quality Item Tes National Standar School Exam Social Science Education (USBN-IPS) For Junior High School	85-88
<i>Sudarman</i> Student`s Mental Revolution Model At Senior High School	89-93
<i>Sufyarma Marsidin, Tia Ayu Ningrum, Irsyad, and Anisah</i> The Need Analysis toward Alternative Assessment in Students' Learning Process	94-98
<i>Sumarni, Futum, Danial, and Raudah</i> The Effect of Entrepreneurship of Principal, Duties Commitment and Participation of School Committees Toward the Effectiveness of School Management of State Primary Schools of Samarinda	99-104
<i>Suratman</i> The Correlation of Coping Mechanisms with Adolescent Attitude to Bullying at Senior High School Palangka Raya	105-109
<i>Suryagustina, Helly Damayanti, and Rimba Aprianti</i> Academic Supervision Implementation By Head of School	110-115
<i>Yudo Dwiyono</i> Improvement of Students Learning Outcomes in Mathematics Learning Through Realistic Mathematics Education (RME) Learning Models at Fifth Grade Students in SDN 001 Sungai Kunjang	116-121
<i>Tri Wahyuningsih, and Fara Virgianita P</i> Scientific Text Language Management Non-Language Students: Characteristic Grammatical Study	122-128
<i>Widyatmike Gede Mulawarman, and M. Ilyas</i> The Role and Benefits of Building Savings and Loans Application In Cooperatives At School of Samarinda	129-134
<i>Heny Pratiwi and Ita Arfyanti</i> Application of Technique for Order Preference Method by Similarity to Ideal Solution (TOPSIS) Priority of KORPRI Housing Recipient	135-139
<i>Ramadiani and Reynaldi Kurniawan</i> A Comprehensive Study of Midwifery Care (Continuity of Care) in Mandiri Midwife Practices with APN's Standard-Based (Normal Delivery Care) Samarinda Year 2017	140-143
<i>Siti Noorbaya, Purwaningtyas Budi Utami, and RR Nyndia Mayangsari</i> Understanding Patients' Condition: Physical, Psychological and spiritual Aspects of Advanced Cancer Patients in Central Java, Indonesia	144-149
<i>Wahyu Dewi Sulistyarini and Chi-Yin Kao</i> The Correlation of Salt Consumption and Stress to Incidence of Hypertension at Pahandut Health Center Palangka Raya City	150-153
<i>Siti Santy Sianipar and Septian Mugi Rahayu</i> Study of the Couples Knowledge about Vasectomy in Area of Puskesmas Bengkuring Samarinda Year of 2017	154-156
<i>Stephanie Sorta Llyod, Siti Saidah, and Nuuva Yusuf</i> A Decade of HIV/AIDS in East Kalimantan, Indonesia	157-159
<i>Swandari Paramita, Evi Fitriany, Meiliati Aminyoto, Muhammad Khairul Nuryanto, Rahmat Bakhtiar, and Krispinus Duma</i>	

Correlation Between The Knowledge Of Prenat Mother About The Preeclampsia Risk And Delivery Process In Sidomulyo Health Center Year 2017 <i>Dwi Riyan Ariestantia, Yesica Eka Puri, and Besse Lidia</i>	160-162
The Relationship between Hemoglobin Levels of Pregnant Mother with Hemoglobin Levels of Newborns in UPTD Puskesmas Tiron Banyakan District Kediri Regency East Java in 2017 <i>Heni Purwanti, Hestri Norhapifah, and Sumiati</i>	163-166
Correlation of Nurse Knowledge with the Implementation of Risk Fall Identification (Morse Fall Scale) in Inpatient Room of the Dayaku Raja's Regional Public Hospital Kota Bangun <i>Rusdi, Edy Mulyono, and Ida Hayati</i>	167-170
The Influences of CD4 Count Reduction on Opportunistic infections in New HIV patients at Hospital of Abdul Wahab Sjahranie Samarinda-Indonesia <i>Silvia Anitasari, Irma Yunita, and Vera Madonna L Toruan</i>	171-174
The Effect of Health Education on the Level of Knowledge About Stress Management Students of SMAN 5 Palangka Raya <i>Putria Carolina, Wawan Kurniawan Setiawan, and AdyFraditha</i>	175-179
Menginang Views Of Culture And Health In Central Borneo <i>Effrata</i>	180-181
Study of Non-Smoking Area Regulation and Its Legal Enforcement in Developing Country <i>Endang Sutrisno and Aji Halim Rahman</i>	182-186
The Role Of Majelis Taklim Activities In The Building Spiritual Intelligence Of Members (Case Study: Majelis Taklim Fathimiyyah Samarinda) <i>Gamar Al Haddar, Ratna Khairunnisa, and Afdal</i>	187-190
Advancing Corporate Social Responsibility of Mining Enterprises at East Kalimantan to Attain Sustainable Environment <i>Mahendra Putra Kurnia, Purwanto, Siti Kotijah, Suparto Wijayo, Supomo, and Ine Ventyrina</i>	191-198
Harmonization's As A Way To Actualize An Establishment Of Good Legislations Within Indonesia's Legislation System <i>Mia Kusuma Fitriana</i>	199-207
The Attitude of Indonesian Migrant Workers in Hong Kong (A Study of Functional Systemic Linguistics) <i>Netty Nurdiyani, Djatmika, Sumarlam, and Tri Wiratno</i>	208-212
Analysis Of Implementation ISO 9001: 2008 Model Of Internal Customer Process PT. KMI <i>Rosmiati</i>	213-217
Food Production, Poverty Indices and Capability Related Variables (Case of Central Java and Yogyakarta Provinces) <i>Deffi Ayu Puspito Sari</i>	218-223
The Leadership Style of The Head of District Onthe Era of Special Autonomy In 3T (Outpost, Outer And Remote) Area (A Case Study on The Remote Area of The District Office of Itlay Hisage, Jayawijaya Regency, Papua Province) <i>Rudi Hartono Ismail, Nur Aini, and Eko Pahabol</i>	224-230

Scientific Text Language Management Non-Language Students: Characteristic Grammatical Study

Widyatmike Gede Mulawarman¹⁾, M. Ilyas²⁾

¹⁾ *Lecturer of Indonesian Language and Literature Education, Faculty of Teacher Training and Education, Mulawarman University, Samarinda, Indonesia*

E-mail: widyatmikegedemulawarman@yahoo.co.id

²⁾ *Lecturer of Primary Teacher Education, Faculty of Teacher Training and Education, Mulawarman University, Samarinda, Indonesia*

E-mail: -

Abstract. This study aimed to describe the process of preparing scientific texts (language management) and language characteristic of the non-language students scientific texts. This research used qualitative descriptive research. Data collection techniques is observation and assignment. The research data is papers written by non-language students are then analyzed according to the existing problems. The results show several thins. First, the pre-writing stage through five stages: defining topics, limiting topics, setting goals, developing frameworks for writing, and searching for materials. Second, from the writing stage of scientific texts (papers) can be mapped out the language features: (1) the paragraph composed of several paragraph patterns, i.e. (a) the introduction section is dominated by description paragraph, (b) the theory section is dominated by the discussion and explanation paragraph, (c) the methodology section is dominated by the procedural paragraph, (d) the content is dominated by the reporting, explanatory, and exposition paragraphs; (2) scientific texts composed of 60-95 sentences, mostly using sentences of subordinate structure; (3) the most commonly used phrase is the nominal phrase and denotes the scientific text using the nominalization system; (4) the text does not use many aspect markers and modality markers; (5) material processes are the most widely used processes in scientific texts.

Keywords: language management, scientific texts, non-language students

I. INTRODUCTION

Indonesian has been studied since learners recognize formal education. Not only that, in some Indonesian families no longer as a second language but since they were born have been taught Indonesian language. In other words, logically the mastery of learners against the Indonesian language should not be doubted. However, this is not the case, the reality of the linguistic competence of both oral and written learners in the formal situation is not satisfactory.

This condition is due to several factors. Among the learners can not distinguish the Indonesian variety of official and unofficial variety. The next cause is that it can not distinguish between Indonesian vernacular and verbal language. The reason is why the Indonesian language still needs to be given at the college level as the provision of linguistic knowledge in the writing of scientific papers especially for students who study in non-lecture courses.

In addition to functioning as a means of thinking and means of communicating, the language serves as a defender of science. The function of the Indonesian language as an advocate of science is emphasized even as a basic foundation for the 2013 curriculum. This means that Indonesian is placed as a means of developing science, technology and culture. Mastery of the Indonesian language will help someone in mastering science, technology, and cultural arts.

The paradigm shift that is oriented to the function of language as the advocate of science is based on the paradigm shift from the orientation of formalism to the orientation of functionalism. The application of this functional approach is certainly in line with the objectives of Indonesian language learning at various levels of education, including universities, as stated in Candidate No.22 of 2006 on Content Standards. For functional, structure is determined by the function of language in human life. The function of language determines the form of a language either lexically or grammatically. Each form (lexicogrammatically) a language can be different from one another because the function it runs is also different. In every interaction between language users, speakers use language that serves to describe, exchange, and assemble experiences. Data collection on functional linguistics comes from the context of usage, both oral and written. Therefore, this approach is text-oriented.

The text can be broken down into several types. Types of text can be distinguished on the basis of purpose (the social function of the text), the structure of the text, and the linguistic features of the texts. In accordance with the principle, different texts certainly have different functions, different structures, and different linguistic features.

One of the types taught in secondary and higher education is scientific texts. Scientific texts (scientific language variety) are used to report or communicate the results of scientific

activities (Chaer, 2011: 3). Not only in secondary education, scientific texts are also required to be taught at university level. Scientific text becomes one of the prerequisites for high school graduation (Scientific Writing assignment) and students (thesis, thesis, and dissertation). Therefore, scientific texts are significant texts in language learning in schools as well as in high schools. Therefore, this paper focuses on the study of grammatical characteristics of scientific texts in the form of scientific articles. The data in this paper is sourced from 6 scientific articles written by students of the Faculty of Economics, Faculty of Engineering and Faculty of Social and Political Sciences Mulawarman University.

II. METHODS

The type of this research is descriptive qualitative research with the purpose of research to do the description of writing in the form of scientific texts written nonkebahasaan students are students of the Faculty of Engineering, Faculty of Economics and students of the Faculty of Social and Political Sciences. The data in this study in the form of scientific texts written by nonkebahasaan students presented in narrative rather than in the form of numbers. Data analysis technique used is flow analysis. This flow analysis consists of three simultaneous activity flows, ie data reduction, data presentation, and conclusion drawing (Miles and Huberman, 1992: 13). This type or method is called content analysis (content analisis).

III. RESULT AND DISCUSSION

A. Scientific Language Management

Language management includes the stages of organizing words into good sentences are required skills to compose sentences. To organize sentences into paragraphs, it is necessary to draw up paragraphs. Meanwhile, to organize the paragraphs into a text required writing skills. In writing the required stages (scientific language management of the language) include:

1) Pre-Writing Stage

Pre-writing stage is a preparatory step before writing. In this step the steps are taken, as follows: (a) determining the topic, (b) limiting the topic, (c) determining objectives, (d) making the writing frame and (e) determining the material.

2) Writing Stage

Stage of writing is a discussion of each item of the topic contained in the framework of essay. In the framework of the essay is still needed more detailed explanations so that readers can understand the purpose of writing submitted. In writing, essays really needed the right choice of words, meticulous, and straightforward, so that in this writing, writer must be able to devote all vocabulary mastery possessed. Good writing is a writing that can not be separated from the rules of the prevailing language. Therefore the essay must be written with the proper spelling, and in accordance with the applicable rules of writing.

3) Revision Stage

Completing the writing does not mean it has finished carrying out the writing activities. The author still needs to re-read the writing that has been made. This re-reading activity is to look closely at the parts that need improvement, especially in the use of spelling, punctuation, word choice, paragraphs, sentence logic, systematic writing, typing, etc. In addition, the author also needs to look back, whether there is still a lack in theory, analysis, or the use of sentences and paragraphs.

The management of the language of the scientific texts begins with the pre-writing stage (planning) of non-adult student paper writing (students of the Faculty of Engineering, students of the Faculty of Economics and students of the Faculty of Social and Political Sciences), the researcher tries to present the data by informing the research sample by giving the task of writing a paper by mengawaili the process of preparing the framework of the content of the paper through: Pre-writing stage is the preparation stage before writing. In this step the steps taken, as follow.

Table 1
Recapitulation of Language Management Pre-Stage Writing Papers

Pre-Writing Stage	FT 1	FT2	FE1	FE2	Fisip 1	Fisip 2
Determine The Topic	√	√	√	√	√	√
Limiting Topic	√	√	√	√	√	√
Set Goals	√	√	√	√	√	√
Create a Writing Frame	√	√	√	√	√	√
Determine The Material	√	√	√	√	√	√

Source: Proccesed Data, 2016

At the pre-writing stage, all students participating in the course of the MPK Bahasa Indonesia through the stages a) determine the topic (at this stage, the lecturer of the subjects of the MPK Bahasa Indonesia gives the task of writing a paper with a topic adapted to the field of science students take), so the determination of the topic determined lecturers pengont subjects MPK Bahasa Indonesia then learners (students) develop in the frame of thinking. Thus the stage of determining this topic, b) Limiting the topic, at this stage, this stage the students try to limit the topic so that the discussion is not anywhere (too broad), and the topic is not too narrow so the writer becomes overwhelmed, c) at this stage all students set the author's objectives with the consideration that by setting the goal of being a reference in the development of the author so as not to get out of the predefined topic, d) Stage 4 students compose the framework of writing, at this stage

students compose the framework of writing and according to them with composing the framework of writing, the students have no difficulty in putting ideas in written language, and 5) this last stage, the student begins by preparing the material for material enrichment as well as writing experiences.

B. Grammatical Characteristics of Scientific Text

According to Wibowo (2012: 29), a scientific work is defined as a writing based on observations, reviews, research, and reflections in a particular field of science, organized according to certain methods with polite, good and correct writing; or based on standard written language rules. Truth content must also be scientifically accountable.

In this research, the researcher only take sample of six (6) papers written by non-adult students represented by students of Faculty of Engineering, Faculty of Economics students and students of Faculty of Social and Political Sciences with consideration of time and energy limitation and researcher coincidence to teach Indonesian MPK course in three (3) the faculty. Based on the search of 6 scientific papers with the details of two (2) economic papers, two (2) technical papers, and two (2) sociopolitical papers, the linguistic descriptions are listed in table 2 below.

Table 2

Description of Language of Non-Math Student Papers

Unit Language	Paper					
	Civil Engineering	Chemical Engineering	Accounting I	Accounting II	Sos pol IP	Sos pol Tourism
Paragraph	20	31	42	15	34	28
Sentence	97	155	162	56	92	147
Clause	183	300	521	137	252	278
Equivalent Compound	21	13	28	1	14	21
Multiline Compound	36	48	78	30	45	62
Compound Sentence	31	69	42	17	22	48
Simple Sentence	9	25	14	10	11	16
Nominal Phrases	212	478	475	75	211	289
Verbal Phrases	53	126	71	11	99	58

Adjectival Phrases	12	55	31	6	12	23
Numerical Phrases	6	118	25	0	1	0
Adverbial Phrases	3	9	1	8	14	7
Prepositional Phrases	24	32	116	11	33	29

Source: Processed Data, 2016

The table informs the characteristics of language elements in the following scientific texts. Of the six papers analyzed, 170 paragraphs, 709 sentences, 1671 clauses, 197 equivalent compound sentences, 299 multi-sentence sentences, 229 complex compound sentences, 85 single sentences, 1740 nominal phrases, 4108 verbal phrases, 139 adjective phrases, 150 numeric phrases, 42 adverbial phrases, and 245 prepositional phrases.

The table shows that these six scientific texts have single, multilevel, compound, compound and complex compounds. The most widely used by the author of the paper is a multilevel compound sentence. The most commonly used phrase pattern in the scientific text is the phrase with the nominal phrase. The following is the exposure to the characteristics of lingual units that include paragraphs, sentences, phrases, and clauses

C. Characteristics of Paragraphs Scientific Texts

The number of paragraphs in the scientific text is between 15 and 42 paragraphs. The fewest paragraphs (15 paragraphs) are scientific papers on socio-political, while the most paragraphs (42 paragraphs) are scientific papers on economics. The unity of the paragraphs in the scientific texts is constructed by lexical cohesion and grammatical cohesion. The congruence of its meaning is constructed by an extra conjunction of sentences, that is, therefore, as for, besides, though, thus, therefore, to this day, and so on.

The paragraph in the scientific essay is composed of the basic sentence and followed by several explanatory sentences. Paragraphs of scientific writing are preceded by opening paragraphs, torso, and closing paragraphs. The types of paragraphs contained in this article are paragraphs of descriptions, procedures, explanatory reports, expositions, and discussions. The scientific article is composed of several mixed types of paragraphs.

The search for the data indicates that the description paragraphs are in the introductory section of the article. To describe something, a definition is needed to clarify a particular concept at the beginning of the article. For the explanation section of the methodology, a procedure paragraph is used. However, if a scientific article is a concept exposure, the article does not contain a methodological explanation.

The paragraph of the report is contained in the discussion section. This paragraph describes something based on observations. This paragraph deals with the grouping of things into the types according to their individual characteristics.

The explanatory and exposition paragraphs are also contained in the article under study. In fact, it can be said that explanatory and exposition paragraphs are widely encountered and dominate the scientific articles. This paragraph is used to explain why a reason and justification is proposed. For that purpose, causal relationships are often tackled to explain that something is happening because of something else.

Discussion paragraphs are also present in each article analyzed. The discussion paragraph contains the issues reviewed from the point of view. One viewpoint supports the issue raised, while another stands against the issue.

The analysis of the paragraph patterns contained in the scientific article shows that a scientific article is composed of several paragraph patterns. The introductory section is dominated by a description pattern; part theory is dominated by discussion and explanation paragraphs; the methodology section is dominated by procedural paragraphs; content is dominated by paragraphs of reports, explanations, and expositions.

D. Sentence Characteristics in Scientific Text

The average sentence contained in a scientific article ranges from 97 to 155 sentences. Of course, the more the number of paragraphs, the sentences contained in an article also more and more. Based on the data that has been analyzed, the characteristics of sentences that build scientific articles are described as follows.

- 1) There are 229 sentences of multilevel compound structure (subordinate compound). Conjunctions contained in the scientific work of multilevel compound structure are:
 - (1) Time conjunction: from, after, then, further, so, until. Conjunctions of time after, before, after, completion, while, temporarily, temporarily, while, while, as long as they are not found in the research corpus.
 - (2) Conjunction terms: if, if. The conjunction of the terms if, of origin, when, when not found in the research corpus.
 - (3) Conjunction purpose: for, order, order. The conjunction of the purpose of use is for, for the sake of not being found in the research corpus.
 - (4) Concessive conjunctions: though, though, or. Consistent conjunction is (even), sungguh (pun), once (even), and although not found in the corpus.
 - (5) Conjunction comparison or similarity: like, like. Comparison conjunctions are as if, as, as, as, like, like, rather than, like, like, rather than invisible in the corpus.
 - (6) Conjunction cause or reason: cause, because, because.
 - (7) Conjunction result or result: so, until. The resulting conjunction up to (-samp) is not found in the corpus.

(8) Complementation conjunction: that

(9) Attributive conjunction: yang

In addition there are some conjunctions that are not found in the research data. The conjunctions are:

(1) Conjunctive conjunction: if, suppose, if not found in the research corpus.

(2) Equivalent conjunction: equally ... not found in the research corpus.

(3) Co-optive conjugation: hopefully, hopefully, hopefully not found within the research corpus.

2) There are 197 sentences of compound compound equivalent (compound coordinative). The conjunctions contained in the equivalent plural equivalent scientific work are as follows:

a) Addition conjunction: and

b) Counseling conjunction: as well as

c) Electoral conjunction: or

d) Correlative conjunction: either ... or, more ... than. The correlative conjunction between ... and, somehow, let not ..., is not found in the corpus of research.

3) There are 85 single sentences. Single sentence used mostly patterned passive sentence

E. Phase Characteristics in Scientific Texts

The data show that the nominal phrase is 1740, the verbal phrase is 418, the adjective phrase is 139, the numerical phrase is 150, the adverb phrase is 42, and the prepositional phrase is 245. This number indicates that the type of phrase most used in scientific papers is the phrase nominal with the number 1740.

A nominal phrase occupies a function as a participation in the clause construction. The number of nominal phrases that occupy the most positions indicates that scientific articles use the nominalized system. The number of nominal phrases used in the text of the scientific genre caused by a nominal phrase can serve as subject, object, and complement in sentence structure.

Construction of a nominal phrase in a core + core scientific work. However, there are also some data in the core + core structure. The forehead in front of the noun is usually numerical and adverbial, whereas the pewatas after the core nouns are usually nouns, adjectives, verbs, adverbials, numerals, and determinants (this is)

F. Transitivity of Clauses in Scientific Text

Transitivity is a grammatical system of clause structures that realize an ideational meaning. This system can be described as "who does something to whom, when, where, why, or how to function" (Halliday, 2004). The term transitivity is a semantic concept because it seeks to explain or explain the meaning of linguistic experience (experiential function). The transitivity data in the six scientific texts is presented in the following table.

Table 3
Description of Transitivity Data Clause

Transsitivitas	Artikel						Jumlah
	1	2	3	4	5	6	

Process	Material	14 5	23 6	88	8 7	8 0	8 2	718
	Mental	7	4	19	1 6	2 0	1 8	84
	Relational	51	14 5	11 9	2 7	6 9	4 8	459
	Behavioral	8	13	64	4 5	1 5	1 3	158
	Verbal	6	11	5	5	1	2	30
Sircumtanta	Existential	6	27	7	1 2	2 6	2 1	99
	Locate	10 3	80	41	6 7	5 1	4 8	390
	Eksten	2	8	16	4	6	4	40
	Way	30	31	21	2 0	1 9	2 1	142
	because	5	10	11	2 3	2 0	1 6	85
	companio n	0	15	2	4	2	2	25
	condition	11	38	3	1 4	1 6	1 1	93
	Role	2	14	5	4	5	3	33

When looking at table 3, information about the transitivity elements including the process and circumscision and their sub-categories are obtained. Of the six scientifically analyzed transitivity elements, obtained 1548 processes, and 831 circumscision or accompanying information. The participants are related to the process contained in each clause.

Participant roles are grouped related to the process. That is, each process will bring up different participants. The participant roles associated with the process will bring up different participants. Participant roles related to the process include (1) actors, targets, results, and beneficiaries in the material process; (2) taste and phenomena in mental processes; (3) persons and attributes, as well as designated and indicated in the relational process; (4) behavioral in behavioral process; (5) speakers, recipients and utterances (verbiage) in the verbal process; and (6) are existential in the existential process.

The process becomes a central element in transitivity as the realization of the inner and inner experiences commonly expressed by verbs in clauses. Process elements are realized by the verbal group of clauses and participant elements are recalculated in nominal groups. The circumscision element is present according to the needs of deeds, events, and circumstances (process). The number of processes found in the data is 1548. There are six categories of processes, namely material processes, mental processes, relational processes, behavioral processes, verbal processes, and existential processes.

1) Material Process

The material process is the process of disclosing the physical activity / action / action and an event / event. This process reveals the author's experience of a concrete event or event and an activity that tends to be physical. Based on the table the material process is the process most widely used author. The six scientific texts analyzed for their transitivity, indicating the dominance of the material process, amounted to 718.

In general the material process has two participants I called the actor and the participant II is called the goal. An actor is a person or object performing an action or action. Meanwhile, the goal is the person or thing that receives the process or another word where the process is addressed.

Although the most material process, it does not mean that participants who do the deeds are human. Most participants in the clause are common objects or participants. Participants in the form of humans are only used if the article wants to describe the object in the form of humans. However, this is very rare in scientific papers.

Scientific articles dominated by material processes indicate that scientific work emphasizes the principal (nomination) as the principal. Although non-human actors, authors continue to use material-processed verbs to maintain objectivity and to avoid ambiguity. The lack of use of human participants is also linked with the level of objectivity. Scientific work must be objective so that the data contained in it can be accounted for scientifically.

2) Process Of Relation

The relational process is a process that connects an entity with another thing that is equipment or designation / tagging. In other words, connecting two participants with these two relationships is biased to attribute or assign value to the first participant. In the six scientific texts analyzed, 459 relational processes were found.

Participants in the attributive relational process are carriers and attributes. Carrier (bearer) is a participant who is given an attribute, and the attribute can be a participant (realized in word or phrase), state or nature or circumstances. Meanwhile, the partisipan in the relational process of identification includes tokens and values. A token is something of value. Meanwhile, value is the value of something.

Relational process is widely used in scientific work, as many as 459. This is based on the reason that paragraphs in scientific papers more dominated by the paragraph description, eksplanasi, and exposition that serves to describe an object or member attributes on an object. Invaluation of objects requires several process verbs to connect the various participants involved in the event.

3) Behavioral Process

The behavioral process is related to actions that have or have been done by everyone. This process shows experience. The behavioral process can also be referred to as a process that exhibits physiological activity. The semantic behavioral process is a combination of mental processes and material processes. This process expresses the form of action associated with the psychology of the exhorters of the text. In

the six scientific texts analyzed, 158 were found to be a behavioral process. This process is widely used in scientific articles because scientific work demands scientific truth and scientific validity. Scientific truth requires scientific behavior. Therefore, verbs related to behavior such as investigating, researching, explaining, are widely used in scientific articles.

4) Existential Process

Existential process is a process that indicates the presence of participants. Of the six texts analyzed, 99 extensions were found. When associated with a scientific article, the existence of the process relates to the event, the state of the place, the existence of an object.

5) Mental Process

Mental process is a process that describes feelings or thoughts that are concrete. This mental process is a process of thinking (cognitive), sensing (perceptive), and feel (affective). Cognitive mental processes are concerned with the use of the brain like thinking, understanding. Perceptive mental processes are related to the use of the senses to proceed, such as seeing, hearing, feeling with (the tongue and skin), whereas the affective mental process deals with feelings or hearts, such as love, hate, liking, dislike. The mental process data found in the six scientific texts analyzed was 84.

This type of verbs are not widely used in scientific papers. Scientific works should describe data as objectively as possible, so the use of affective verbs should be avoided. Scientific selection must be objective, not based on perception, affection, and not based on feelings and imaginations. Verba berjenis ini tidak banyak digunakan di dalam karya ilmiah.

6) Verbal Process

Verbal process is a process related to the action of speech and all its synonyms. The verbal process typically consists of three participants, namely: sayer, receiver, and verbiage. Sayer is the participant who is responsible for the verbal process. Verbiage is the nominal statement of the verbal process. The verbal process indicates the existence of intercultural communication in the text. The verbal process in this scholarly text amounts to 30 clauses.

Verbal process is a process that uses action in the form of verbal (saying) which is often realized by saying, asking, telling. The verbal process is the least used process in scientific work. This is due to the necessity of a scientific work to obey the rules of written language. Scientific works may not use spoken language. The use of verbal processes in scientific papers deals only with quoting statements from a figure mentioned in the text.

IV. CONCLUSIONS

Based on the results of data analysis performed and described in the previous chapter it can be concluded as follows:

1) At the pre-writing stage, students have gone through the correct stages that include the 5 stages that are part of the scientific language management of text that is: (1) Determining the topic, (2) Limiting the Topics, (3) Define the

purpose, (4) Prepare the writing framework and (5) Looking for materials.

2) The implementation stage of the writing of scientific texts (papers) shows that the types of texts can be distinguished on the basis of the objectives (social function of the text), the structure of the text, and the linguistic features of the texts. In accordance with the principle, different texts certainly have different functions, different structures, and different linguistic features. The linguistic features contained in the scientific texts (papers) are mapped as follows: (1) The pattern of the paragraph contained in the scientific paper shows that a paper is composed of several paragraph patterns. The introductory section is dominated by the description pattern; part theory is dominated by discussion and explanation paragraphs; the methodology section is dominated by procedural paragraphs; content is dominated by paragraphs of reports, explanations, and expositions. (2) The average sentence contained in a scientific work ranges from 97 to 155 sentences. Most of the most used sentences are sentences subordinate structures. (3) The type of phrase most used in scientific papers is the nominal phrase. This shows that many scientific papers use the system of nominalization. (4) Scientific work does not use many aspect markers and modalities markers. (5) The material process is the most widely used process in scientific work. Although the offender is not human, the author still uses material process verbs to avoid ambiguity and maintain objectivity. This process shows that scientific work emphasizes the principal (nomination) as the actor.

3) Still found a variety of deviations in the use of language, both concerning the sentence, the formation, the order of meaning / diction, as well as the grammar. In relation to the sentence, it is found that there are deviations of sentence without subject and or predicate, sentence without parallelism, sentences with explanatory phrases, and pleonastis sentences. In relation to the formation, it is found that there are deviations of the meN- and the conflicts of the prefix. In relation to the meaning, there is an illogical reasoning and inappropriate use of words. In relation to the grammar, there is a wide variety of irregularities, namely deviations (1) letter writing, (2) word writing, (3) and punctuation.

REFERENCES

- [1] Alwi, Hasan, dkk.2003. *Tata Bahasa Baku Bahasa Indonesia*. Jakarta:Depdikbud Pusat Bahasa.
- [2] Chaer, Abdul.2011. *Ragam Bahasa Ilmiah*. Jakarta: Rineka Cipta.
- [3] Borg R, Walter and Meredith Damien Gall.2003. *Educational Research: an Introduction*. New York: Longman.
- [4] Eggins, Susan.1994. *An Introduction to Systemic Functional Linguistic*. London: Pinter.
- [5] Halliday, M.A.K. 1978. *Language as Social Semiotic: The Social Interpretation of language and Meaning*. London: Edward Arnold Publisher.
- [6] _____. 2003. *On Language and Linguistics Continuun*. London: MPG Books.

- [7] _____. 2004. *An. Introduction to Functional Grammar* . New York: Oxford University Press. Halliday, Michael & Ruqaiya Hasan. 1994. *Bahasa, Konteks, dan Konteks: Aspek-Aspek Bahasa dalam Pandangan Semiotik Sosial*. Yogyakarta: Gadjah Mada University Press.
- [8] Kridalaksana, Harimurti. 2002. *Struktur, Kategori, dan Fungsi dalam Teori Sintaksis*. Jakarta: Universitas Katolik Atmajaya.
- [9] Parera, J.D. 2009. *Dasar-Dasar Analisis Sintaksis*. Jakarta: Erlangga.
- [10] Purwo, Bambang Kaswanti. 1987. "Pragmatik dan Pengajaran Bahasa" dalam *Makalah untuk Pertemuan Lembaga Bahasa Atmajaya*. Jakarta: Atmajaya.
- [11] Santoso, Riyadi. 2003. *Semiotika Sosial Pandangan terhadap Bahasa*. Surabaya: JP Press.
- [12] Wibowo, Wahyu. 2012. *Tata Permainan Bahasa Karya Tulis Ilmiah*. Jakarta: Bumi Aksara.

The Role and Benefits of Building Savings and Loans Application In Cooperatives At School of Samarinda

Heny Pratiwi¹⁾, Ita Arfyanti²⁾

¹⁾ Teknik Informatika, STMIK Widya Cipta Dharma, Samarinda, Indonesia
E-mail: henypratiwi@wicida.ac.id

²⁾ Sistem Informasi, STMIK Widya Cipta Dharma, Samarinda, Indonesia
E-mail: ita@wicida.ac.id

Abstract. The purpose of holding research on Cooperative are to know the System Savings and Loans in Cooperative and to design the Application of the Savings and Loans in Cooperative at school of Samarinda. The use of saving and loan cooperative software greatly supports the smoothness and also the continuity of the future cooperative. This research focuses on designing The Application In Cooperatives At School of Samarinda using SDLC (System Development life Cycle), Flow Of Document, Data Flow Diagram, and Database. School cooperatives have a target to introduce learners in the implementation of cooperative activities, form a positive attitude in giving provision of skills so useful in fulfillment of needs. Graduates who have basic cooperative education get work stay faster, feel more satisfied with their work, accept higher wages, received a judgment better for their appearance, and have a positive attitude towards the activity entrepreneurship in their schools.

Keywords: Role and Benefits, Building Saving, Loan Application, Cooperatives, School

I. INTRODUCTION

In this globalization era, the world economy development has been very rapid progress both in terms of technology and thinking. One of them is activities in the field of services that is cooperative. Cooperative is a form of economic organization that has an important role and is closely related to the current economic system in Indonesia, which is a pillar of family-based economy and mutual cooperation.

As happened to Cooperative of School, Savings Unit is one of the most important part because most of income is obtained from that unit. Until now the accounting system used in Cooperative still not computerized, because all activities are still records in the book, Cooperative operational activities in this case often occur errors in the system of recording, this occurs due to poor recording system used, so that in the processing transaction data becomes slow.

The savings accounting system that occurs comes from Deposits, Mandatory Deposits, and Voluntary Deposits. Mistakes that often occur in the end of the month for the entry of cash incoming data each month. The part involved in making the deposit report in the researcher's place is the Treasurer and Bookkeeping section. The Treasurer's section often encounters errors in input data at the time of daily savings transactions, and the bookkeeping still has difficulty in making monthly reports. For this problem at least some solutions are needed which may be useful for enterprise operating systems, especially storage systems.

It required changes that can improve the effectiveness in the application using a system program.

Related to the description in the background, can be determined the subject matter to be discussed, is the role and

benefits to Build Savings and Loans Application In Cooperative at School of Samarinda.

The scope of the problem and the limitations of time in the making of the report, is directed to the subject matter. That is the Design of Savings and Loans Application at Cooperative are:

1. Saving process. The savings process consists of principal savings, mandatory savings, and voluntary savings. The method of recording accounting used in the company is the method of recording Cash Basic, because income is recognized if it is actually received in cash and will recognize the burden if really has happened.
2. Applications of Savings and Loans Cooperative includes the following, among others:

Input Phase: Member Data, Savings Data, Loan Data, Payment Data

Process Phase: Savings Account, Loan Transactions, Payment Transactions

Output Phase: Member Report, Loan Report, Payment Report, Savings Report, Cooperative Members' Card, Proof of Loan Installment, Proof of Deposits, Proof of Loan.

The purpose of holding research on Cooperative are to know the Accounting System Savings and Loans in Cooperative and to design the Application of the Savings and Loans in Cooperative at school of Samarinda. The use of saving and loan cooperative software greatly supports the smoothness and also the continuity of the future cooperative. Basically savings and loan cooperatives in use to facilitate the work of cooperative employees in managing the activities of cooperatives, finance, and also important data that exist in the cooperative.

Another benefits are the integration of all financial transactions in one system, Allows managers to open management to members so that member trust increases, Enable administrators to monitor and monitor transactions conducted, verification and evaluation of business activities, Know the profile of cooperative members, Know the list of income, Knowing the funds borrowed, Sharing Report based on Month Stock, Sharing Report based on Member Service Amount.

Application platforms play a fundamental role in modern computing environments. Applications and the data they use provide all of the value that information technology brings, and virtually every application depends on an application platform. Since pretty much every organization today relies on applications, there's a clear connection between business value and application platforms as in [1].

Cooperative are constrained in the availability of funding sources as they cannot easily either raise capital or access the wholesale funding market as in [2]. Cooperatives are often formed in response to a problem in the market, usually due to an imbalance of power between a supplier of goods and the customer. By pooling members' purchasing power, a cooperative may serve as a force to lower prices or raise the quality of service, or influence the market in other significant ways as in [3].

Cooperative is a business entity consisting of people or cooperative legal entity withbased its activities based on cooperative principles as well as a groundless people's economic movement on the principle of kinship and The Cooperative Establishment Act is an engagement agreementformation of cooperative legal entities created by the founders or their proxies and signedbefore the Notary of the Deed of Cooperative in ameeeting the formation of cooperatives containing the basic budget as in [5].

School is the main place where individuals follow the education formal process to add knowledge and skills on his life in the future. The school environment is a workable order protects students and school staff from accidents and illnesses and can increase prevention activities and develop attitudes toward factors risks that can cause illness. The physical environment of the school should be meet the following criteria: as in [4]

1. Able to provide basic needs and other school human beings.
2. Able to protect the school's human from the threat of disease.
3. Able to protect school children from biological threats.
4. Able to protect school students from chemical threats.

The school cooperative is a cooperative which was established in a school environment that its members consist of teachers and students where guided by mentors consisting of school teachers concerned. school cooperative established in order to instill an attitude student's independence to developand skilled in entrepreneurship. Also foster creative self-esteem and innovative so that after graduation can develop those skills,

Graduates are not only job seekers but can open jobs especially for himself.

Implementation of the school cooperative is one of the organizations founded in the school environment that serves as learning tools for students to learn and shape skills entrepreneurship optimally. school cooperative can be established at various levels education.

School cooperatives have a target cooperatives to introduce learners in the implementation of cooperative activities, form a positive attitude in giving provision of skills so useful in fulfillment of needs. Graduates who have basic cooperative education get work stay faster, feel more satisfied with their work, accept higher wages, received a judgment better for their appearance, and have a positive attitude towards the activity entrepreneurship in their schools. Utilization of school cooperatives can used as one of the media practice directly for inner students apply his skills accordingly their respective fields of expertise and as well as individual learning for his own life. Students can develop their potential both to become entrepreneurs and as labor. Besides cooperatives as well useful as a contribution in adding income, whether it's income for students, school income and help build the economy of society.

School cooperatives have a target to be achieved. The goal is to introduce cooperatives directly and conduct activities cooperative business directly. Graduates who have basic cooperative education get work stay faster, feel more satisfied with their work, accept higher wages, received a judgment better for their appearance, and have a positive attitude towards the activity entrepreneurship in their schools.

Rules or procedures in establishing cooperatives at School of Samarinda:

1. Stage of School Cooperative Preparation

Hold meetings / meetings formation of school cooperatives by the school co-op formation committee. The points discussed are:

- a. Explanation of the intent and purpose of establishing a school cooperative attended by teachers and students. In every meeting should be included news and events attendance list.
- b. Establishment of deed of establishment of cooperative school containing information about the names of the committee forming school cooperatives.
- c. Membership
- d. Choosing a school co-operative.
- e. The board is selected from among the members themselves.
- f. Some teachers are involved to become members of the school cooperative board or supervisor.
- g. Board for 1 year term.
- h. The number of administrators must be odd and at least 3 people.
- i. The board before performing the duty, should raise an appointment or an oath of office.
- j. Choosing a school cooperative supervisor.

2. Stage of Cooperation Formation

The making of the articles of association, the Articles of Association are the basis of democratic life in cooperatives, the Articles of Association as the source of cooperative rules.

3. Reporting / Submission Stage

After the stipulation of the board, supervisor, cooperative capital and the Articles of Association, the school cooperative management shall immediately apply for the recognition of the establishment of the school cooperative to the Head of the Cooperative Department Office at the Regency / Municipal level by submitting the following documents:

- Articles of association / deed of establishment of school cooperatives which are arranged in two sheets.
- The original deed was spiked with 6,000 material.
- News of the meeting meeting of the formation of cooperatives.
- The initial balance of the school co-operative that provides information on the amount of wealth and capital of the school cooperative was initially established.

4. Phase of Legalization

Prior to providing recognition of the establishment of a school cooperative, officials of the Cooperative Department Office must review the school cooperative. If after being reviewed and judged to be eligible to stand then the Head of the Directorate of Cooperatives will issue a letter of validation of the cooperative concerned no later than 3 months, starting from the date of filing a school cooperative filing application.

II. METHODS

The methods used in data collection during the study were:

1. Field study is a method to obtain data used in report writing by directly involved with activities in the field. Method of data acquisition with field study is divided into 2 (two), namely:

- Interview is one way of collecting data by dealing directly with the parties involved in curriculum activities, in this case is Treasurer, Bookkeeper and Head of Cooperative. also conduct interviews to get the data needed to build a data processing system.
- Observation. It is a way of data collection where conducted direct observation in the field of work process conducted by Treasurer, Bookkeeper and Head of Cooperative.

2. Library Studies. Studying literature books related to the title taken as a reference or basic discussion, as well as to obtain the theoretical basis of the system to be developed, so that in the writing of the report does not deviate from theories that have been there and recognized the truth.

Stages of System Development using SDLC (System Development life Cycle) that is a step in the development of information systems or stages in the work done by system analysts and programmers in building information systems.

1. Analysis

From the research method applied, obtained the data used in the activities of the Deposit Management Cooperative. From these data can be performed data analysis to facilitate the

design of the system and can clarify the picture of the system will be built based on existing problems.

In analyzing the data, what is needed is some data obtained from the Head of Cooperative.

The required data are:

- Member data, employee data, data storage.
- Saving output report, member list, member saving balance, and membership card.

1.1. Requirement Analysis

Needs analysis is an analysis to find out what needs are needed in loading a saving application processing system in terms of software and hardware.

2. System Design

The design of this system aims to provide an overview of the proposed system. There are several stages in the design:

- Flow of Document (FOD) that is running and proposed.
- Data Flow Diagram symbol (DFD).

3. Implementation

After doing the analysis and design, then the implementation is the development of the system, in this case focused on making the program and its use. The parts built in this system are

- Database Structure
- Member Data Input Form
- Forms of Transaction Process of Deposit, Loan and Installment.
- Output / Repor.

III. RESULT AND DISCUSSION

The analysis results with emphasis on answering research problems, include as follows:

A. Running Flow Of Document

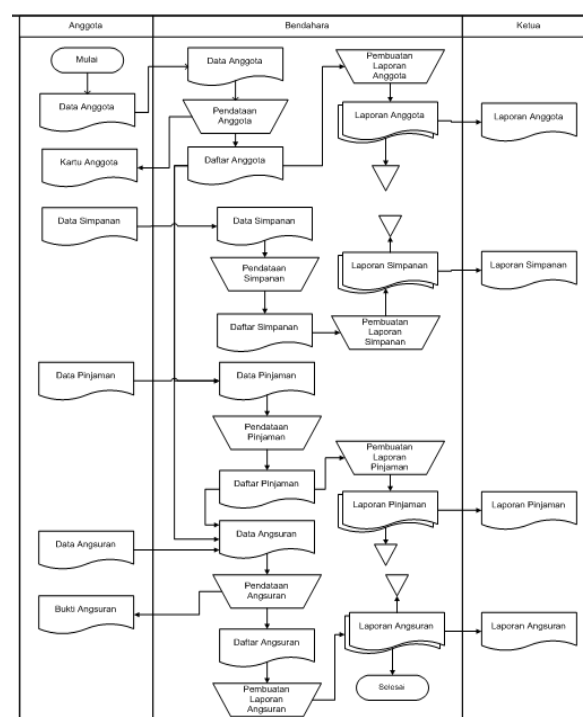


Fig. 1 Running Flow of Document

In Figure 1, the current Flow Of Document (FOD) at Cooperative is initiated by the Treasurer entity which provides Member Data to the Treasurer entity to be processed and produces the Member list.

Then in the Treasurer's entity the Member list is made of a Double Member Report, the first report is given to the Chairman while the second report is filed. Member Data is also generated Member cards are given to Members which later the book is used by members to make deposits or loans. Furthermore, the Member entity provides the Deposit Data to the Treasurer. So in the treasurer's entity Savings Data Collection and generate the Savings List, after that entity Treasurer make a deposit report as many as two copies. A duplicate is given to the Chairman entity and the rest are archived.

The Member Entity still has the Loan Data provided to the Treasurer, Loan Data processed in the Treasurer entity into Loan List. List of Loans in the entity is made a Loan Report of two copies that one copy for the Chairman and the rest to be archived. The Member Entity provides Installment Data to the Treasury entity which proceeds to the Installment Data which produces the Installment List. From the Installment List made a Double Installment Report and submitted a duplicate to the Chairman entity and archived another part.

B. Proposed Flow Of Document

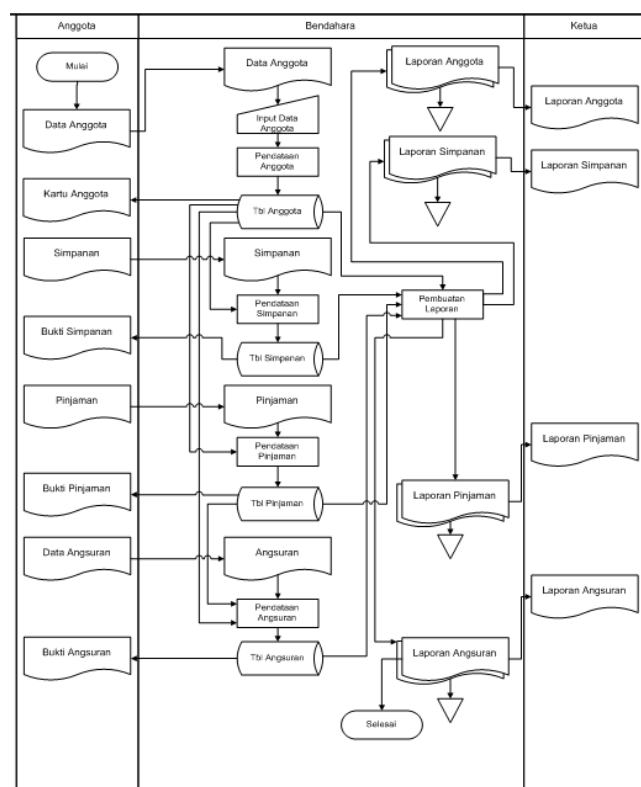


Fig. 2 Proposed Flow of Document

In Figure 2 above the proposed Flow Of Document (FOD) of the Samarinda Cooperative is initiated by a Member entity that provides member data to the treasurer's entity for processing and then stored into a database of member

tables. Savings data provided from members to the treasurer are then processed and stored into the storage table database, as well as the loan data contained in the treasurer's entity entered and then processed and stored into the database of loan tables. The Installment Data is also input from the member entity to the treasurer and processed entities which will be deposited into the installment database. Furthermore, in the process of making the report required data from the table members database, storage database, and tables loan database.

C. Data Flow Diagram Level 0

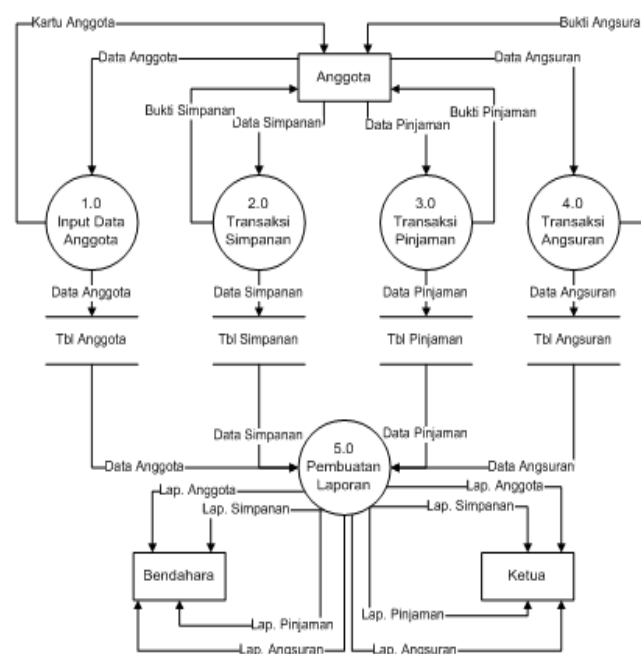


Fig. 3 Data Flow Diagram Level 0

Seen in Figure 3, DFD begins with member entity input member data then stored into database member table, saving data to be stored into storage table database, installment data to be saved to database installment table, and loan data to be stored in database of loan table. From member data transactions members are generated membership cards, from the payment of the installment payments resulting from the proof of installment, from the member savings transaction to the proof of deposits, from the loan transaction resulting from the proof of the loan, from the member's savings transaction to the proof of deposit, and from the repayment of the installment shall be proof of the installment Member entity

D. Data Flow Diagram Level 1

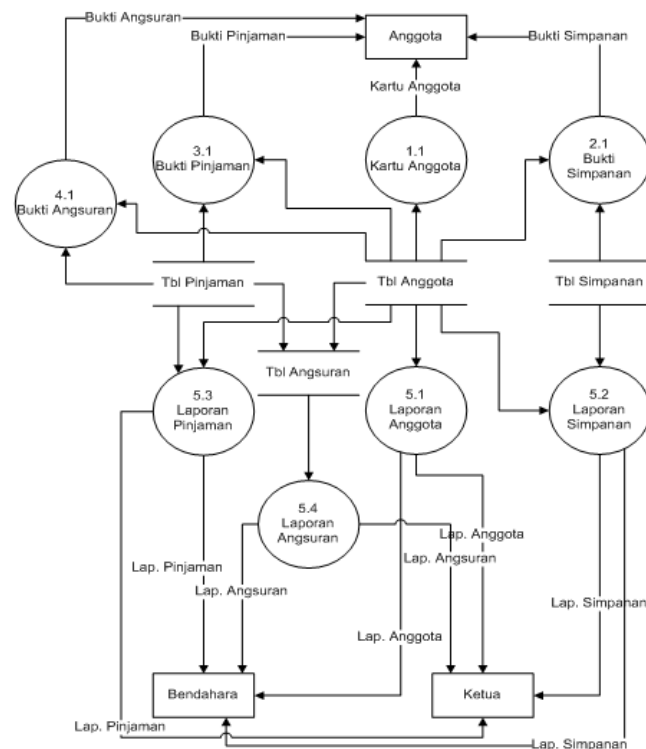


Fig. 4 Data Flow Diagram Level 1

Database Structure Dataset is a very useful set of information, organized in an interconnected form. Application of the database in information systems is an information system that integrates a collection of data that are interconnected with each other. Before making the program first need to be made data base. The database used as follows:

TABLE I

MeMbers table

*Primary Key is Numb_Member

No	Field Name	Type	Size
1	Numb_Member	Text	15
2	Name	Text	40
3	Gender	Text	100
4	Address	Text	50
5	No_Telp	Number	12
6	Job	Text	25
7	Location	Text	50

TABLE III

Loan Table

*Primary Key is Numb_Loan

No	Field Name	Type	Size
1	Numb_Loan	Text	30
2	Date_Loan	Date/time	
3	Numb_Members	Text	20
4	Information	Text	25
5	Loan	Currency	
6	Long_Loan	Number	30
7	Interest Income	Number	30
8	Admin	Number	30
9	Date_Started	Date	
10	Date_Done	Date	
11	Total_Interest Income	Currency	
12	Total_Loan	Currency	
13	Installment	Currency	
14	Paydate	Date	
15	Status	Text	15

TABLE IIIII

DepoSIT

*Primary Key is Numb_Deposit

No	Field Name	Type	Size
1	Numb_Deposit	Text	25
2	Date_Transf	Date	
3	Kind	Text	25
4	Balance	Currency	50

TABLE IV

Installment

*Primary Key is Installment

No	Field Name	Type	Size
1	id_installment	Text	20
2	Id_loan	Text	20
3	Id_member	Text	20
4	Installment	Text	3
5	Date_Installment	Date	
6	Amount_Installment	Currency	
7	Balance_Deb	Currency	
8	Fine	Currency	
9	Information	Text	200

IV. CONCLUSIONS

Given the results of research conducted and based on the descriptions discussed, it can be concluded that:

1. With the designing of this application, the board's job becomes easy because initially the board performs each transaction of recording in the book, and the calculation accuracy becomes much better also Integrate all financial activities. Also the existing constraints can be overcome, thus indirectly increasing the productivity of cooperatives.
2. Allows managers to open management to members so that member trust increases, Enable administrators to monitor and monitor transactions conducted, verification and evaluation of business activities, Know the profile of cooperative members, Know the list of income, Knowing the funds borrowed, Sharing Report based on Month Stock, Sharing Report based on Member Service Amount.

Acknowledgment

We would like to thank Allah SWT, Parents, and all Civitas Academica STMIK Widya Cipta Dharma for all the support, assistance, and the opportunity that given to use

REFERENCES

- [1] Chappel, David, *What Is An Application Platform*, DavidChappel & Associates, 2011.
- [2] Clark, Ephraim, david Salvatore Mare, Nemanja Radic, *Cooperative Banks: What Do We Know About Competition and Risk Preferences?*, Journal of International Financial Markets, Institutions, and Money, Elsevier, 2017.
- [3] Lindawati, Margareta Lilis, *Peran Koperasi Sekolah dalam Meningkatkan Sikap Kewirausahaan Siswa SMK Negeri 1 Wonogiri*. SOCIA, September 2015, Vol.12, No.2, hal 121-132.
- [4] Reynolds, Anne, *Defining The Value Of The Cooperative Business Model: An Introduction*, University of Wisconsin, Madison, 2013.
- [5] Peraturan menteri koperasi dan usaha kecil dan menengah republik indonesia nomor 10/per/m.kukm/ix/2015 tentang kelembagaan koperasi. *PERMEN-permen-kukm-nomor-10-tahun-2015-tentang-kelembagaan-koperasi.pdf*

Application of Technique for Order Preference Method by Similarity to Ideal Solution (TOPSIS) Priority of KORPRI Housing Recipient

Ramadiani¹⁾, Reynaldi Kurniawan²⁾

*¹⁾ Department of Computer Science at Faculty of Computer Science and Information Technology
Mulawarman University, East Kalimantan Indonesia
E-mail: ilkom.ramadiani@gmail.com*

Abstract. The KORPRI secretariat of Samarinda city focuses on activities that lead to the welfare of members of the Indonesian republican civil service corps. The preferred activity is the KORPRI housing service for civil servants in Samarinda. The objective of the research is to implement the Technique For Order Preference By Similarity To Ideal Solution (TOPSIS) method of the KORPRI Housing Priority Decision Support System. This study uses TOPSIS method because the selected alternative has the closest distance to the ideal solution and furthest from the ideal negative solution. The results achieved from this research by applying TOPSIS method, the decision that can be given is the priority of recipients of KORPRI as the consideration of the secretariat of KORPRI in making the right decision.

Keywords: Decision Support System; Technique For Order Preference by Similarity to Ideal Solution (TOPSIS); KORPRI Housing.

I. INTRODUCTION

KORPRI Secretariat of Samarinda City is one of the offices located in Samarinda which conducts daily activities such as social assistance, business activities, sports coaching, cultural arts, mental and spiritual activities, other tasks assigned by other regional secretariat and chairman governing board of civil servants corps republic Indonesia.

The KORPRI Samarinda City Secretariat focuses on activities that lead to the welfare of members of the Indonesian republican civil service corps. Activities undertook view from a predetermined schedule and also there where a predetermined day is of course initiated by employees who have experience in their respective fields. One of the routine activities is Friday clean, blood donation and KORPRI housing service provision for civil servants in Samarinda.

The preferred activity is the KORPRI housing service for civil servants in Samarinda. This activity takes precedence because of a large number of requests from each employee who will propose homes for each one family for one request.

The problem faced is to determine the main priority of KORPRI housing recipients from the number of civil servants who apply to apply for KORPRI housing in Samarinda.

The existence of the problem is needed a decision support system that can help and facilitate in determining the priority of the recipient of housing for employees who have submitted the housing so that it can precisely determine the recipient based on predetermined criteria.

II. METHODS

Decision Support System (DSS) is an information system that is shown to assist leaders in the decision-making process. Decision Support System combines the capabilities of computers in interactive services by processing or manipulating data that utilizes unstructured models or settlement rules. This system is used to assist decision making in unstructured situations, where nobody knows exactly how decisions should be made [4].

Decision Support Systems can be defined as an information system that helps identify decision-making opportunities or provide information to assist decision-making [5]. The decision-making stage includes an alternative selection process of action or decision consisting of the following steps:

1. Intelligence phase

A stage of a person's process within the framework of the decision maker for the problems encountered, consisting of search activity, detection, and problem recognition process. The input data is obtained, tested in order to identify the problem.

2. Design Phase (Design Phase)

The decision process stage after the intelligence stage includes a process for understanding the problem, lowering the solution and testing the feasibility of the solution. Activities that are usually done such as finding, developing and analyzing alternative actions that can be done.

3. Phase of Choice (Choice Phase)

At this stage, a selection process is made between various possible action alternatives. The election results are then implemented in the decision-making process.

4. Implementation Phase (Implementation Phase)

At this stage is the stage of implementation of the decisions that have been taken. At this stage, it is necessary to prepare a series of planned actions so that the results of the decisions can be monitored and adjusted if necessary improvements.

III. RESULT TECHNIQUE FOR OTHERS REFERENCE BY SIMILIARITY TO IDEAL SOLUTION METHOD

Technique For Others Reference by Similarity to Ideal Solution (TOPSIS) is one of the first multicriteria decision-making methods

introduced by Yoon and Hwang (1981). With the basic idea is that the chosen alternative has the closest distance to the ideal solution and furthest from the ideal negative solution.

TOPSIS pays attention to either the distance to the ideal positive solution or to the ideal negative solution by taking a close relationship to the ideal solution. By doing a comparison of both, the order of choice can be determined [3].

The steps taken in problem-solving using TOPSIS method are:

1. Create a normalized decision matrix.

TOPSIS requires performance rating of each alternative A_i on each of the normalized C_j criteria. The normalized matrix is formed from equation 1

$$r_{ij} = x_{ij} / \sqrt{\sum_{i=1}^n x_{ij}^2} \quad (1)$$

Where r_{ij} is a normalized initial value whereas x_{ij} is the initial value of the weight of each criterion.

1. Make a normalized matrix weighted decision.

Equation 3 is used to calculate a weighted normalized matrix, it must first be determined the value of weight that represents the absolute preference of the decision maker. The preference weight value shows the relative importance level of each criterion or subcriteria in equation 2:

$$W = \{w^1, w^2, w^3 \dots w^n\} \quad (2)$$

$$Y_{ij} = w_i \cdot r_{ij} \quad (3)$$

Where W ($w^1, w^2, w^3 \dots w^n$) is the weighted value of the importance of each criterion, whereas Y_{ij} is a normalized weighted value and the result r_{ij} result is the normalized value of equation 1.

1. Determine the matrix of positive ideal solutions and the ideal negative solution matrix

Positive ideal solutions and negative ideal solutions can be determined based on a normalized weighted rating. Note the terms of equations 4 and 5 in order to calculate the value of the ideal solution by first determining whether the benefits (benefit) or cost (cost):

$$A^+ = y^{1+}, y^{2+}, \dots y^{n+} \quad (4)$$

$$A^- = y^{1-}, y^{2-}, \dots y^{n-} \quad (5)$$

Where A^+ is the maximum value of the positive ideal matrix with A^- is the minimum value of the ideal negative matrix. $Y + j$ is maxed y_{ij} , if j is a benefit attribute (benefit) while min y_{ij} , if j is the cost attribute (cost). Y_j is min y_{ij} , if j is the benefit attribute (max) while max y_{ij} , if j is the cost attribute (cost).

2. Determine the distance between the value of each alternative with the matrix of positive ideal solutions and the solution matrix

Ideal negative separation measure is a long distance measurement of an alternative to an ideal solution and a negative ideal solution. The mathematical calculations are as follows:

The alternative range (D_i^+) with the ideal ideal solution is formulated in equation 6:

$$D_i^+ = \sqrt{\sum_{j=1}^n (y_{ij}^+ - y_{ij})^2} \quad (6)$$

Where D_i^+ is the ideal ideal solution value $y + j$ is maxed y_{ij} , if j is the benefit attribute (benefit) while min y_{ij} , if j is the cost attribute (cost). $Y - j$ is min y_{ij} , if j is a benefit attribute (benefit) while max y_{ij} , if j is a cost attribute (cost).

Alternative distance (D_i^-) with the ideal ideal solution is formulated in equation 7:

$$D_i^- = \sqrt{\sum_{j=1}^n (y_{ij}^- - y_{ij})^2} \quad (7)$$

Where D_i^- is the value of the ideal ideal solution $y + j$ is max y_{ij} , if j is a benefit attribute (benefit) while min y_{ij} , if j is the cost attribute (cost). $Y - j$ is min y_{ij} , if j is a benefit attribute (benefit) while max y_{ij} , if j is a cost attribute (cost).

3. Preference value for each alternative

The preference value (V_i) for each alternative is given in equation 8:

$$V_i = D_i^- / (D_i^- + D_i^+) \quad (8)$$

Greater V_i values indicate that A_i alternatives are preferred [3]

IV. RESEARCH RESULT

The results and discussion of decision support system of KORPRI housing priority priorities include design and testing. The following calculations are used in the TOPSIS method.

TABLE 1
CRITERIA OF THE RECIPIENT OF THE HOUSING

Number	Criteria	Symbol
1	Has a House	C1
2	Years of service	C2
3	The Time Towards Retirement	C3
4	Status	C4
5	Departure	C5

TABLE 2
ALTERNATIVE HOUSING RECIPIENT DATA

C1 (Has a House)	C2 (Years of Service)	C3 (The Time Towards Retirement)	C4 (Status)	C5 (Departure)
Yes	≥ 5 Years	≤ 2 Years	Widow	Class 1

No	≥ 5 Years	> 2 Years	Married	Class 3
No	< 5 Years	≤ 2 Years	Married	Class 2

Each alternative is given a scale value based on the value of preference C, so the values form the table below :

C1 (Has a House)	C2 (Years of Service)	C3 (The Time Towards Retirement)	C4 (Status)	C5 (Departure)
1	2	2	3	3
3	2	1	2	1
3	1	2	2	2

Matrices X :

1	2	2	3	3
3	2	1	2	1
3	1	2	2	2

Weight (W) = 3 1 2 2 1

Step 1. Each Alternative rank

Rank the performance of each alternative Ai on each of the normalized Cj criteria, that is:

$$r_{ij} = \frac{x_{ij}}{\sqrt{\sum_{i=1}^m x_{ij}^2}}$$

$$r_{11} = \frac{1}{\sqrt{1^2 + 3^2 + 3^2}}$$

$$= \frac{1}{\sqrt{1 + 9 + 9}} = 0,2294$$

$$r_{12} = \frac{2}{\sqrt{2^2 + 2^2 + 1^2}}$$

$$= \frac{2}{\sqrt{4 + 4 + 1}} = 0,6667$$

$$r_{13} = \frac{2}{\sqrt{2^2 + 1^2 + 2^2}}$$

$$= \frac{2}{\sqrt{4 + 1 + 4}} = 0,2294$$

$$r_{14} = \frac{3}{\sqrt{3^2 + 2^2 + 2^2}}$$

$$= \frac{3}{\sqrt{9 + 4 + 4}} = 0,7276$$

$$r_{15} = \frac{3}{\sqrt{3^2 + 1^2 + 2^2}}$$

$$= \frac{3}{\sqrt{9 + 1 + 4}} = 0,8018$$

$$r_{21} = \frac{3}{\sqrt{1^2 + 3^2 + 3^2}}$$

$$= \frac{3}{\sqrt{1 + 9 + 9}} = 0,6882$$

$$r_{22} = \frac{2}{\sqrt{2^2 + 2^2 + 1^2}}$$

$$= \frac{2}{\sqrt{4 + 4 + 1}} = 0,6667$$

$$r_{23} = \frac{1}{\sqrt{2^2 + 1^2 + 2^2}}$$

$$= \frac{1}{\sqrt{4 + 1 + 4}} = 0,3333$$

$$r_{24} = \frac{2}{\sqrt{3^2 + 2^2 + 2^2}}$$

$$= \frac{2}{\sqrt{9 + 4 + 9}} = 0,4851$$

$$r_{25} = \frac{1}{\sqrt{3^2 + 1^2 + 2^2}}$$

$$= \frac{1}{\sqrt{9 + 1 + 4}} = 0,2673$$

$$r_{31} = \frac{3}{\sqrt{1^2 + 3^2 + 3^2}}$$

$$= \frac{3}{\sqrt{1 + 9 + 9}} = 0,6882$$

$$r_{32} = \frac{1}{\sqrt{2^2 + 2^2 + 1^2}}$$

$$= \frac{1}{\sqrt{4 + 4 + 1}} = 0,3333$$

$$r_{33} = \frac{2}{\sqrt{2^2 + 1^2 + 2^2}}$$

$$= \frac{2}{\sqrt{4 + 1 + 4}} = 0,6667$$

$$r_{34} = \frac{2}{\sqrt{3^2 + 2^2 + 2^2}}$$

$$= \frac{2}{\sqrt{9 + 4 + 4}} = 0,4851$$

$$r_{35} = \frac{2}{\sqrt{3^2 + 1^2 + 2^2}}$$

$$= \frac{2}{\sqrt{9 + 1 + 4}} = 0,5345$$

The value of each alternative to calculation of step 1, which is presented in Matrics R.

	0,2294	0,6667	0,6667	0,7276	0,8018
R =	0,6882	0,6667	0,3333	0,4851	0,2673
	0,6882	0,3333	0,6667	0,4851	0,5345

Step 2. Decision Matrix Normalized

W = [3 1 2 2 1]

V = R * W

$$v_{11} = (r_{11} \times w_1)$$

$$= 0,2294 \times 3$$

$$= 0,6882$$

$$v_{12} = (r_{12} \times w_2)$$

$$= 0,6667 \times 1$$

$$= 0,6667$$

$$v_{13} = (r_{13} \times w_3)$$

$$= 0,6667 \times 2$$

$$= 1,3333$$

$$\begin{aligned}v_{14} &= (r_{14} \times w_4) \\&= 0,7276 \times 2 \\&= 1,4552\end{aligned}$$

$$\begin{aligned}v_{15} &= (r_{15} \times w_5) \\&= 0,8018 \times 1 \\&= 0,8018\end{aligned}$$

$$\begin{aligned}v_{21} &= (r_{21} \times w_1) \\&= 0,6882 \times 3 \\&= 2,0647\end{aligned}$$

$$\begin{aligned}v_{22} &= (r_{22} \times w_2) \\&= 0,6667 \times 1 \\&= 0,6667\end{aligned}$$

$$\begin{aligned}v_{23} &= (r_{23} \times w_3) \\&= 0,3333 \times 2 \\&= 0,6667\end{aligned}$$

$$\begin{aligned}v_{24} &= (r_{24} \times w_4) \\&= 0,4851 \times 2 \\&= 0,9701\end{aligned}$$

$$\begin{aligned}v_{25} &= (r_{25} \times w_5) \\&= 0,2673 \times 1 \\&= 0,2673\end{aligned}$$

$$\begin{aligned}v_{31} &= (r_{31} \times w_1) \\&= 0,6882 \times 3 \\&= 2,0647\end{aligned}$$

$$\begin{aligned}v_{32} &= (r_{32} \times w_2) \\&= 0,3333 \times 1 \\&= 0,3333\end{aligned}$$

$$\begin{aligned}v_{33} &= (r_{33} \times w_3) \\&= 0,6667 \times 2 \\&= 1,3333\end{aligned}$$

$$\begin{aligned}v_{34} &= (r_{34} \times w_4) \\&= 0,4851 \times 2 \\&= 0,9701\end{aligned}$$

$$\begin{aligned}v_{35} &= (r_{35} \times w_5) \\&= 0,5345 \times 1 \\&= 0,5345\end{aligned}$$

$$V = \begin{matrix} & 0,6882 & 0,6667 & 1,3333 & 1,4552 & 0,8018 \\ 2,0642 & 0,6667 & 0,6667 & 0,9701 & 0,2673 \\ 2,0642 & 0,3333 & 1,3333 & 0,9701 & 0,5345 \end{matrix}$$

3. Positive and Negative Ideal Solutions

Positive Ideal Solutions (A^+) :

$$Y^{1+} = \text{MAX} (0,6884, 2,0642, 2,0642) = 2,0642$$

$$Y^{2+} = \text{MAX} (0,6667, 0,6667, 0,3333) = 0,6667$$

$$Y^{3+} = \text{MAX} (1,3333, 0,6667, 1,3333) = 1,3333$$

$$Y^{4+} = \text{MAX} (1,4552, 0,9701, 0,9701) = 1,4552$$

$$Y^{5+} = \text{MAX} (0,8018, 0,2673, 0,5345) = 0,8018$$

Negative Ideal Solutions (A^-) :

$$Y^{1-} = \text{MIN} (0,6884, 2,0642, 2,0642) = 0,6884$$

$$Y^{2-} = \text{MIN} (0,6667, 0,6667, 0,3333) = 0,3333$$

$$Y^{3-} = \text{MIN} (1,3333, 0,6667, 1,3333) = 0,6667$$

$$Y^{4-} = \text{MIN} (1,4552, 0,9701, 0,9701) = 0,9701$$

$$Y^{5-} = \text{MIN} (0,8018, 0,2673, 0,5345) = 0,2673$$

$$A^+ = 2,0642, 0,6667, 1,3333, 1,4552, 0,8018$$

$$A^- = 0,6884, 0,3333, 0,6667, 0,9701, 0,2673$$

4. Calculating Ideal Solution Distance.

Proximity of Positive Ideal Solution

$$\begin{aligned}D_1^+ &= \sqrt{(2,0642 - 0,6882)^2 + (0,6667 - 0,6667)^2 + (1,3333 - 1,3333)^2 + (1,4552 - 1,4552)^2 + (0,8018 - 0,8018)^2} \\&= 1,3765\end{aligned}$$

$$\begin{aligned}D_2^+ &= \sqrt{(2,0642 - 2,0642)^2 + (0,6667 - 0,6667)^2 + (1,3333 - 0,6667)^2 + (1,4552 - 0,9701)^2 + (0,8018 - 0,2673)^2} \\&= 0,9826\end{aligned}$$

$$\begin{aligned}D_3^+ &= \sqrt{(2,0642 - 2,0642)^2 + (0,6667 - 0,3333)^2 + (1,3333 - 1,3333)^2 + (1,4552 - 0,9701)^2 + (0,8018 - 0,5345)^2} \\&= 0,6464\end{aligned}$$

Distance Ideal Negative Solution

$$\begin{aligned}D_1^- &= \sqrt{(0,6884 - 0,6882)^2 + (0,3333 - 0,6667)^2 + (0,6667 - 1,3333)^2 + (0,9701 - 1,4552)^2 + (0,2673 - 0,8018)^2} \\&= 1,0376\end{aligned}$$

$$\begin{aligned}D_2^- &= \sqrt{(0,6884 - 0,6882)^2 + (0,3333 - 0,6667)^2 + (0,6667 - 1,3333)^2 + (0,9701 - 1,4552)^2 + (0,2673 - 0,8018)^2} \\&= 1,4163\end{aligned}$$

$$\begin{aligned}D_3^- &= \sqrt{(0,6884 - 0,6882)^2 + (0,3333 - 0,6667)^2 + (0,6667 - 1,3333)^2 + (0,9701 - 1,4552)^2 + (0,2673 - 0,8018)^2} \\&= 1,5526\end{aligned}$$

Positive Ideal Solution Results (A^+) and Ideal Negative (A^-):

$$D_1^+ = 1,3765$$

$$D_2^+ = 0,9826$$

$$D_3^+ = 0,6464$$

$$D_1^- = 1,0376$$

$$D_2^- = 1,4163$$

$$D_3^- = 1,5526$$

5. Calculating the Preference Value.

$$V_i = \frac{D_i^-}{D_i^- + D_i^+}$$

$$V_1 = \frac{1,0376}{1,0376 + 1,3765} = 0,4298$$

$$V_2 = \frac{1,4163}{1,4163 + 0,9826} = 0,5904$$

$$V_3 = \frac{1,5526}{1,5526 + 0,6464} = 0,7060$$

So rank order: $V_3 > V_2 > V_1$ from this value V it can be seen that V_3 has the greatest value. So it can be concluded that V_3 is prioritized as the recipient of KORPRI housing

V. CONCLUSIONS

The result of this system is obtained from TOPSIS method, which makes the normalized decision matrix then calculated using the equations in TOPSIS method So that matrix is obtained which determines the distance between the positive ideal solution value and the negative ideal solution matrix so that the main priority recipient recommendation KORPRI

REFERENCES

- [1] Jahanshahloo GR et al. 2006. Extension of the TOPSIS method for decision-making problems with fuzzy data. *Journal Appl Math Comput* vol.181: 1544–1551
- [2] Ramadiani, Nur Aini, et.al., 2017. *Certain Factor Analysis for Extra Pulmonary Tuberculosis Diagnosis*. Proc. EECSI 2017 - Yogyakarta, Indonesia, 19-21 Sept; page 133 -139.
- [3] Efrain, 2007. *Decision Support and Intellegent System*
- [4] Turban, E. dan Aronson, J, E. 2001. *Decision Support Systems and Intelligent Systems*. 6th edition. Prentice Hall: Upper Saddle River, NJ
- [5] Whitten 2007. *Decision Support and Intellegent System*. jilid 2. Yogyakarta: Penerbit Andi

A Comprehensive Study of Midwifery Care (Continuity of Care) in Mandiri Midwife Practices with APN's Standard-Based (Normal Delivery Care) Samarinda Year 2017

Siti Noorbaya ¹⁾, Purwaningtyas Budi Utami ²⁾, RR Nyndia Mayangsari ³⁾

¹⁾ *Mutiara Mahakam Midwifery Academy, Samarinda, Indonesia*
E-mail: sitinoorbanaz.y@gmail.com

²⁾ *Mutiara Mahakam Midwifery Academy, Samarinda, Indonesia*
E-mail: tiyas@akbidmm.ac.id

³⁾ *Mutiara Mahakam Midwifery Academy, Samarinda, Indonesia*
E-mail: nyndia@akbidmm.ac.id

Abstract. The number of MMR is very high in the world. In 2016, more than 216 per 100,000 live births of women die every day due to complications of pregnancy and child birth, recorded 800 women die every day. Based on data from the Ministry of Health, the number of MMR in Indonesia in 2016 is 305 maternal deaths per 100,000 live births, while the IMR is 22.23 per 1,000 live births. MMR in East Kalimantan is still high as many as 137 people from the number of live birth as many as 69.372 people and as many as 7 babies IMR. This becomes an irony because to achieve the target of SDG, s up to 2030 is reducing MMR below 70 per 100,000 live births and by 2030 ending preventable infant and toddler deaths. For that role, midwife as health worker does continuity of care which has been standardized APN able to decrease MMR and IMR. This study aims to describe the implementation of comprehensive midwifery care in Standardized Midwife Practice APN Samarinda. The method used is descriptive qualitative with case study approach. The subjects of the study were trimester pregnant women III. The results of the study of comprehensive care (Continuity of Care) given starting from pregnancy, delivery, newborn, childbirth, neonate until the family planning of normal walking there is no data leading to emergency or pathological and there is no gap between theory and practice. From the results of the study it can be concluded that comprehensive care given to patients starting from pregnancy, delivery, newborn, childbirth, neonates until care KB get physiological results and can prevent emergency maternal and neonatal emergency

Keywords: Midwifery Care, Comprehensive, APN'S Standard-Based

I. INTRODUCTION

Health and mortality problems are closely related to Maternal Mortality Rate (MMR) or more known maternal mortality. Maternal death is the death of a woman during pregnancy or for 42 days from termination of pregnancy regardless of duration and place of delivery, due to pregnancy or management.

The number of maternal mortality rates (MMR) is very high in the world, in 2016 more than 216 per 100,000 live births of women die every day due to complications of pregnancy and childbirth, recorded 800 women die every day.

Based on data from the Ministry of Health, the number of maternal mortality (MMR) in Indonesia in 2016 is 305 maternal deaths per 100,000 live births, while the IMR is 22.23 per 1,000 live births. MMR in East Kalimantan is still high as many as 137 people from the number of live birth as many as 69,372 people and Infant Mortality Rate (IMR) as many as 7 babies. Continuity of care (CoC) is a service achieved when a continuous relationship exists between the

client and the midwife. Continuous care is related to the quality of service from time to time that requires a continuous relationship between clients with professional health workers, of course, with midwife who has been certified APN (Normal Birth Attendance). to achieve the target of SDG, s up to 2030 is reducing MMR below 70 per 100,000 live births and by 2030 ending preventable infant and toddler deaths. Therefore, the role of midwife as a health worker to do continuity of care and has standardized Normal Birth Attendance (APN) can decrease maternal mortality rate (MMR) and infant mortality (IMR). This study aims to describe the implementation of comprehensive midwifery care in Standardized Midwifery Practice of Normal Birth Attendance (APN) of Samarinda. Specifically to know the description of implementation of midwifery care of pregnancy, childbirth, newborn, childbirth, neonate until KB counseling using scientific mindset through step approach varney, The method used is descriptive qualitative with case study approach.

II. METHODS

The method used is descriptive qualitative with case study approach. The subjects of the study were trimester pregnant women III with or without risk factors, maternal mothers, newborns, postpartum, neonates and prospective KB acceptor. The data collection techniques to be used are primary data and secondary data. Primary data included interview, observation and physical examination and care while secondary data included digging data on mother cohort in practice, data from maternal and child health book (KIA), then the data used in this study transformed the results of research data into an information used to draw conclusions that are documented into the form of SOAP (Subjective, Objective, Assessment, Planning).

In conducting this comprehensive obstetric care, researchers use the format of assessment and checklist, observation and partographic sheets, leaflets and instruments used instruments (Antenatal Care), Partus kit, and tools for examination of newborns.

III. RESULT AND DISCUSSION

Based on the primary data collecting and secondary data of Comprehensive Compliance Practice in Standardized Midwife Practices (APN) of Samarinda Year 2017.

Table 1.1 Distribution of Implementation of Midwifery Pregnancy Care at Samarinda Independent Midwife Practice Year 2017

Antenatal Care	Frekuensi	Time
ANC visit to 1	1	09/03/17
ANC visit to 2	1	13/03/17

Based on table 1 above, the description of the implementation of pregnancy midwifery care as much as 2 x (times) ANC visit to 1 (09/03/17) and ANC visit to 1 (13/03/17). By documenting SOAP (Subjective, Objective, Assessment, and Planning).

Table 1.2 Distribution of Maternity Midwifery Implementation in Samarinda Independent Midwife Practice Year 2017

Intranatal Care	Frekuensi	Time
Kala 1 (13.10)	1	13/03/17
Kala 2 (15.20)	1	13/03/17
Kala 3 (15.37)	1	13/03/17
Kala 4 (15.50)	1	13/03/17

Based on table 2 above, the description of the implementation of midwifery care is 4x. The stage of labor is Kala 1 at (13.10 wita) at 2:15 pm and at 4:50 pm. By doing SOAP documentation (Subjective, Objective, Assessment, and Planning).

Table 1.3 Distribution of Implementation of Newborn Midwife Care Born in Samarinda Independent Midwife Practice Year 2017

Newborn Baby Care	Frekuensi	Time
BBL (0-12 Jam)	1	13/03/17

Based on table 3 above, got the description of the implementation of newborn midwifery care that there is 1x the upbringing at the time of newborn. By doing SOAP documentation (Subjective, Objective, Assessment, and Planning).

Table 1.4 Distribution of Childbirth Midwifery Implementation in Samarinda Independent Midwife Practice Year 2017

Postnatal Care	Frekuensi	Time
KF 1 (6 hr-3 hr)	1	14/03/17
KF 2 (4-28 hr)	1	18/03/17
KF 3 (29-42 hr)	1	20/03/17

Based on table 4 above, the description of the implementation of midwifery care is 3x (times) visit that is KF 1 at at 05.00 wita, KF 2 at at 15:35 wita, KF 3 at (15.00 wita). By doing SOAP documentation (Subjective, Objective, Assessment, and Planning)

Table 1.5 Distribution of Neonates Midwifery Implementation in Samarinda Independent Midwife Practice 2017.

Neonatus Care	Frekuensi	Time
KN 1 (6-42 hr)	1	14/03/17
KN 2 (3-7 hr)	1	18/03/17
KN 3 (8-28 hr)	1	27/03/17

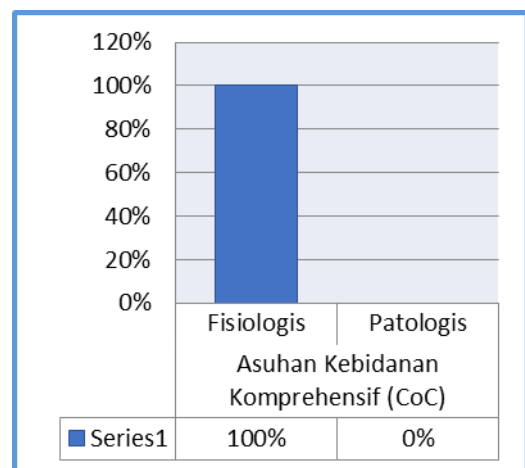
Based on table 5 above, the description of Neonatus midwifery implementation is 3x (times) visit that is KN 1 at at 08.00 wita, KF 2 at at 15.10 wita, KF 3 at at 15.00 wita. By doing SOAP documentation (Subjective, Objective, Assessment, and Planning)

Table 1.6 Distribution of Implementation of Midwifery Care of Family Planning Counseling at Samarinda Independent Midwife Practice Year 2017

KB Care	Frekuensi	Time
Acceptor KB	1	27/03/17

Based on table 3 above, the description of the implementation of contraceptive midwifery care is that there is 1x of care on KB acceptor at (15.30 wita). By documenting SOAP (Subjective, Objective, Assessment and Planning)

Figure 1.1 Distribution of Comprehensive Midwifery Compliance in Independent Midwife Practice 2017



Based on Figure 1 above, a comprehensive implementation of comprehensive obstetric care includes pregnancy, delivery, newborn, childbirth, neonates and contraceptive care in Samarinda Mandiri Midwife Practice 2017 is done by CoC (Continuity Of Care) all the care get physiological results (100 %).

DISCUSSION

A. Antenatal Care (ANC)

Clients have complaints in the third trimester, such as complaining frequent urine, the growing uterus presses the bladder because the head of the fetus begins to descend under the pelvis. The author explains that frequent urination is an inconvenience

in the third trimester. This is a physiological thing, the authors explain to the mother that to avoid getting up at night, limit drinking before bed. Saat cough, laugh, and sneeze, sometimes out a little urine. To avoid this, do pelvic exercises regularly, avoid constipation and often empty the bladder. The client's perceived complaints during the third trimester correspond to the inconvenience that will be felt during the third trimester so that the complaint can still be overcome.

B. Intranatal Care (INC)

In the intranatal care occurs mucus and blood discharge due to upgrading and opening, the opening causes mucous membranes contained in the cervical canal disengaged, blood discharge occurs due to blood vessel capillaries rupture. Terjadi discharge of fluid due to rupture of membranes. This theory in accordance with clients where clients experience mules and felt tight, out mucus mixed with blood examined 4 cm opening.

The period of time I in primigravida lasts 12 hours and in multi gravida lasts about \pm 8 hours. This is in accordance with the client where the client is multigravida, the first

stage lasts \pm 4 hours, ie at 13.30 WITA check the opening 4 cm and at 15.25 WITA opening 10 cm in this case the patient under normal circumstances. Kala II is a period of infant expenditure lasting \pm 2 hours in primigravida and \pm 1 hour in multigravida. This is in accordance with the client's situation at 15:25 WITA opening of 10cm, amniotic (-), portio not palpable, decreased hodge IV head, there is a feeling of want BAB and his stronger and regular is 4 times 10 minutes with a duration of 40-50 seconds. At 15:35 WITA the baby was born spontaneously with female gender A / S: 7/9. Kala III is the time for placental release and removal after the second stage which lasts no more than 30 minutes. The authors performed active management of stage III which consisted of the primary step of injection of oxytocin in the first minute of the newborn, stretching the controlled cord and fundus uteri massage. Kala III client takes place well and normal without any complications. The period of the third time lasts about 15 minutes. This is consistent with the theory that the third stage lasts no more than 30 minutes Kala IV begins from the birth of the placenta until the first 2 hours post partum. The client's 4th stage of monitoring is still within normal limits and there is no gap between theory and practice

C. Newborn Baby Care

Normal newborns are birth weight between 2500-4000 gram, enough month, born directly cry and no congenital abnormalities (congenital defects) are heavy. This corresponds to a baby born with a weight of 3800 grams. At 15.35 WITA the baby was born spontaneously with female gender with APGAR score ie A / S: 7/9. And the baby's handling is given Vit K injection, and given eye ointment.

D. Postnatal Care (PNC)

The postpartum period begins after the birth of the placenta and ends when the uterus returns to its pre-pregnancy state. The puerperium lasts for about 6 weeks. First postpartum visit at 6 hours to 3 days after delivery, second visit within 4th day up to 28th day after delivery, and 3rd visit within 29th day up to day 42 after delivery. Examination given are blood pressure, pulse, respiration, temperature, TFU examination (uterine infusum), lochea examination and other vaginal discharge, breast examination and exclusive breastfeeding advice 6 months, 200 000 IU Vitamin A capsule twice giving birth, the second is given after 24 hours of first vitamin A capsule. And birth control services.

E. Neonatus Care

At neonatal visit I that is 12 hours after birth of the authors do the monitoring, the general state of neonate is good, pulse, breathing and body temperature of the neonate in normal limits. Good baby center, no signs of cord infection. Neonatus consume breast milk and neonates have BAK \pm 4 times clear yellow, CHAPTER 1 times blackish color. At the 2nd visit 5 days after delivery, the authors perform the examination on the neonate, the result of good general condition, pulse, respiration and neonate body temperature within normal limits, good elimination, and nutrition are met. The baby's cord is loose and the baby is in good health. And on the third visit 26 days after birth the

situation is still within normal limits, From the 1st visit until neonatal visit II was in good condition and the results of the examination on minor fontanelle and neonatal major fontanel were still open. This is in accordance with the theory that the minor fontanel closed at the age of 8 weeks. And major fontanel closed at the age of 18 months (1.5 years).

F. Acceptor KB Care

Contraception comes from the word counter which means to prevent or fight, whereas conception is the meeting between mature eggs and sperm cells that result in pregnancy. The purpose of contraception is to avoid / prevent pregnancy as a result of a meeting between mature eggs and sperm cells. The client's current age is 29 years. Researchers conduct counseling about preparation in using contraceptives that will be used after the end of the puerperium. After counseling about various contraceptives, the client decided to use a 3-month injection method. Clients use this 3-month injection method because before this pregnancy the client has been using 3-month injection kb and feel fit with this method. Decisions that have been taken by the client and husband in accordance with the wishes of the client. Researchers argue that long-term contraceptive methods are better used by clients because of the age of clients who are 29 years old and already have 2 children. But the client is not interested in contraception other than 3 months injection.

IV. CONCLUSIONS

The implementation of Comprehensive Midwifery Care in Standardized Midwife Practice of APN (Normal Birth Sail) of Samarinda Year 2017, runs with physiology covering pregnancy care, maternity, newborn, childbirth, neonate, until contraception service, can be drawn conclusion that the importance of care provided by the midwife to the mother during pregnancy to contraceptive services after delivery as early detection of possible complications can be avoided or overcome

REFERENCES

- Ai Nurasiah, et al, 2014. Normal Birth Care For Midwives. Bandung: Refika Aditama
- Ambarwati, E, R, Diah, W. 2010. Nifas Midwifery Care. Yogyakarta: Nuha Medika
- Arum Dyah Novitawati Setya & Sujiyatin, 2011. Complete Guide of Latest KB Services. Jogjakarta: Muha Medika
- Asrinah, 2010. Pregnancy Pregnancy Care. Yogyakarta: Graha Ilmu
- MOH RI, 2010. The Authority Law of Midwives. Jakarta
- Evi Pratami, 2016. Evidence-Based In Midwifery Pregnancy, Labor, And Babies. Jakarta: EGC
- Hilary Lumsden, et al, 2012. Midwifery Care In Newborns. Yogyakarta: Student Literature
- Ina Kuswanti, 2014. Pregnancy Care. Yogyakarta: Student Literature

- Manuaba, Ida Bagus Gde, 2010. Obstetrics Science, Gynecology & Family Planning For Midwife Education. Jakarta: EGC
- Marmi, 2014. Midwifery Care At Antenatal Period Second Edition. Yogyakarta: Student Literature
- Marmi, 2016. Intranatal Care. Yogyakarta: Student Literature
- Prawirohardjo, S. 2010. Science of the Fourth Edition. Jakarta: Bina Pustaka
- Son, Sitiatawa Rizema, 2012. Neonates, Bay and Toddlers Care for Nursing and Midwifery. Jogjakarta: D-Medika
- Roito Juraiha et al., 2013. Maternity Midwife Nursing and Early Detection of Complications. Jakarta: EGC
- Sulistiyawati, A, 2010. Midwifery Care In Maternity Mother. Jakarta: Salemba Medika
- Sukarni Icesmi K & Margarwath ZH, 2013. Pregnancy, Labor and Parthives are equipped with Pathology. Yogyakarta: Nuha Medika
- Suryati Romauli, 2011. Midwifery Care 1 Basic Concepts of Pregnancy Care. Yogyakarta: Nuha Medika
- Syaifuddin, 2012. Anatomy of Physiology, Jakarta: EGC
- Taufan Nugroho, 2014. Askeb Pregnancy Book 1 Pregnancy. Yogyakarta: Nuha Medika
- Vivian Nanny Lia Dewi et al, 2011. Pregnancy Care For Midwifery. Jakarta: Salemba Medika
- Vivian Nanny Lia Dewi, 2013. Neonates Infant And Toddler Infant Edition Fifth Edition. Jakarta: Salemba Medika
- Wahyuni, Sari, 2012. Neonates, Infants and Toddlers. Jakarta: EGC
- Yeyeh, Ai et al. Care of Midwifery 1 (Pregnancy). Jakarta: Trans Media Info

Understanding Patients' Condition: Physical, Psychological and spiritual Aspects of Advanced Cancer Patients in Central Java, Indonesia

Wahyu Dewi Sulistyarini ¹⁾, Chi-Yin Kao ²⁾

¹⁾ *Department of Nursing, Wiyata Husada School of Health Sciences Samarinda, Indonesia*
E-mail: ririn.psik.aa@gmail.com

²⁾ *Department of Nursing, National Cheng University, Tainan City, Taiwan*
E-mail: chiyinkao@mail.ncku.edu.tw

Abstract. Patients with advanced cancer may experience many symptoms in their life including physical, psychological, and spiritual problems. Researchers point out that palliative care should be provided to these patients focusing on comfort, pain control and enhancing patients' quality of life. The focus on palliative care is to care for patients as well as possible before they die, by understanding their problems in physical, psychological and their spiritual aspects.

To examine advanced cancer patients' condition including symptom distress, anxiety, depression and spiritual well-being.

A cross-sectional survey was conducted with convenience sampling in Central Java, Indonesia. The survey questionnaire included demographic data, clinical information, Symptom Distress Scale (SDS) - English version, the Functional Assessment of Chronic Illness Therapy- Spiritual Well-Being (FACIT-Sp-12) – Indonesian version and Hospital Anxiety and Depression Scale (HADS) – Indonesian version. The original English version of SDS questionnaire was translated into Indonesian. Descriptive statistics were used to present each variable and Pearson correlation was used to evaluate the relationship between variables.

A total of 363 patients with advanced cancer were recruited. After translated to Indonesian version of SDS questionnaire, we found value of content validity index was 0.95. Appetite, fatigue and pain were three major distress symptoms among patients while only less than 20% patients experienced mild and moderate anxiety and depression. Patients had a high spiritual well-being (M=38.01). Furthermore, there was a significant correlation between HADS with SDS and HADS with FACIT-Sp-12.

Conclusion: The findings represent advanced cancer patients' condition regarding physical, psychological and their spiritual aspects. It can assist healthcare professionals to understand advanced cancer patients' degrees of symptom distress, the levels of anxiety and depression and states of spiritual well-being which will provide better care for advanced cancer patients..

Keywords: palliative care, advanced cancer, symptom distress, psychological aspect, spiritual well-being.

I. INTRODUCTION

Most patients with advanced cancer have experiences in suffering many symptoms including physical, psychological, and spiritual problems. In physical aspect, pain being the most common symptom among advanced cancer patients (Effendy et al., 2014, Ferrell & Coyle, 2010, Wilson et al., 2007). The previous study reported that around 64% of advanced cancer patients experienced pain (van den Beuken-van Everdingen, et al., 2007). Unrelieved pain will cause significant emotional burdens to patients and may hasten death because of the poor quality of life (Ferrell & Coyle, 2010). Other studies also point out that fatigue, constipation, dry mouth, shortness of breath, sleeping difficulty, dyspnea and appetite loss are physical symptoms commonly occurring among advanced cancer patients (Chang, Hwang, Feuerman, & Kasimis, 2000; Walsh, Donnelly, & Rybicki, 2000; Teunissen et al., 2007). A survey of 112 advanced cancer patients in Indonesia showed that pain, fatigue, and nausea

were three major symptoms among cancer patients (Widyaningsih, Petpichetchian, & Kitrungrrote, 2014).

Psychological burdens also influence advanced cancer patients in different levels (Al-Shakhli, Harcourt & Kenealy, 2006). Emotional disorders of patients could have negative impacts on patient diseases progress and physical status (Spiegel & Giese-Davis, 2003). Mixed depression and anxiety disorder commonly increase over time when the cancer patients are close to death, particularly in the last month of their life (Hwang et al., 2003; Roth & Massie, 2007). On the other hands, patients with advanced cancer may face uncertainty such as the meaning and purpose life, financial needs, functionality and continuity of social support. Patients and family may feel hopeless. Spirituality is important to help them find hope, meaning and acceptance of uncertainty (Puchalski & O'Donnell, 2005). When a patient's condition declines, many of them suffer a variety of discomforts, then forcing to try in finding the meaning of life. During those times, spirituality plays an important role in coping with their suffering (Bentur, Stark,

Resnizky, & Symon, 2014) . A study supported that advanced cancer patients seek spiritual well-being to cope with their illness (Vallurupalli et al., 2012).

All of those aspects have identified to be a multi factors that affect adaptation of trauma and burden in advanced cancer patients (Rodin, et.al., 2008). Interaction of physical, psychological and spiritual variables contribute in the course of progressive disease (Suls & Rothman, 2004). Consideration of previous finding may help in anticipating further patients' condition. It is important to be aware that patients with progressive malignant have multidimensional symptoms that reflect their needs (McClain & Rosenfeld, 2003). Hence, issues related to patients' condition in physical, psychological and spiritual aspects may be responsive to palliative care interventions (Cohen et.al., 2001). But, in fact only few studies in Indonesia explored about patients' condition in advanced stage of malignance disease. Therefore, the aim of this study was to understand advanced cancer patients' condition including physical, psychological and spiritual aspects in Central Java, Indonesia.

II. METHODS

A. Sampling Process and Sample Size

Study participants were recruited from oncology department (Mawar Unit) of Dr. Moewardi hospital Solo, Central Java. A total of 363 patients with advanced cancer were were selected to participated in this study. All participants were diagnosed with advanced cancer (stage 3 or 4 and or already got metastatic cancer), being able to communicate and complete the questionnaire and older than 18 years old. Patients with psychiatric and cognitive disorders which affect their cognitive ability were excluded. Patient who suffered during collecting data was allowed to stop and excluded.

B. Instruments

The study questionnaire included 4 parts: 1) demographics and clinical information, 2) Symptom Distress Scale (SDS) – English version, 3) Hospital Anxiety and Depression Scale (HADS) – Indonesian version, and 4) version the Functional Assessment of Chronic Illness Therapy- Spiritual Well-Being (FACIT-Sp-12) - Indonesian version. Clinical information included cancer diagnoses, time since diagnoses, cancer treatments, performance status and diseases awareness.

The Symptoms Distress Scale (SDS)

The SDS was used to measure patients' symptom distress. It contains 11 symptoms including nausea, appetite, insomnia, pain, fatigue, bowel pattern, concentration, appearance, outlook, breathing and cough and 2 questions about frequency of nausea and pain. Each symptom is rated by 5-point Likert scale from 1-5 (1 referring to normal or no distress, 5 referring to extensive distress, 2-4 referring to intermediate levels of distress). The total scores more than equal 25 indicate moderate distress and scores of 33 or more

represent severe distress (McCorkle, Cooley & Shea, 1995). This instrument provide in English version, so it need to translate to Indonesian language.

The Hospital Anxiety and Depression Scale (HADS)

Patients' anxiety and depression were assessed by the Hospital Anxiety and Depression Scale (HADS). The HADS consists of 2 subscales; anxiety (7 items) and depression (7 items). Each item is rated on a 4-point Likert scale of 0-3. The scores were classified into 4 categories; 0-7 represent normal, 8-10 indicate mild cases of anxiety or depression, while the scores of 11-15 represent moderate cases of anxiety or depression and 16-21 score means severe cases of anxiety or depression (Rudy, Widyadharma & Oka, 2015). It takes 30% of the paper, contains chronological research that can be followed or duplicated, including how to prepare research materials, procedures (algorithm, pseudo code if any) and design of study/research.

The Functional Assessment of Chronic Illness Therapy- Spiritual Well-Being

The FACIT – Sp 12 was used to assess spiritual aspect which comprises of three factors with 12 items; meaning (four items), peace (four items) and faith (four items). A five-point Likert scale is applied, ranging from 0 (not at all) to 4 (very much). Two items are negative statements and need to be reversed for the score. Patient's responses are summed for each subscale and for the whole FACIT Sp-12. The higher scores of FACIT-Sp indicate the better spiritual state. High spiritual well-being state was interpreted a total score of Facit-Sp 12 \geq 36 (McClain, C. S., Rosenfeld, B., & Breitbart, W., 2003).

C. Translation

Given that only SDS has English version, the study conducted instrument translation process after obtaining the original author's permission. According to Beaton, Bombardier, Guillemin & Ferraz (2000), there were several steps for translation process. The first step was a forward translation which was translated the questionnaire from English version to Indonesian language. Two bilingual experts studying in international program for more than 2 years were invited to participate in this stage. Then, the forward translation version was synthesized into one Indonesian version. After that, a backward translation was conducted to translate this Indonesian version into English. Another two bilingual experts were invited to participate in this process. Finally, four experts in oncology area were invited as a reference group to discuss the results of the forward and backward translation version and provide some suggestions to make the Indonesian version questionnaire fulfill the original English meaning and also meet the Indonesian culture context

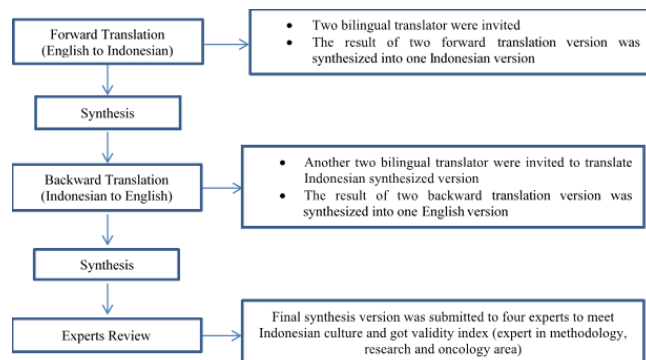


Figure 1. Translation Process of Symptoms Distress Scale

D. Data Analysis

SPSS version 17 software for windows has been used for data analysis. Descriptive analysis was used to present sample characteristics, symptom distress, HADS and spiritual well-being. Pearson correlation was used to evaluate the relationship between variables.

III. RESULT AND DISCUSSION

A. Sample Characteristics

The majority of the participants were female (73.6%) with the mean of age was 54.79 and range between 20 - 95. Most of them were married (94.5%) and had completed education on elementary school (43.5%). Moslem is being the majority religion of participant (96.7%) and more than fifty percent participant has household income less than 100 USD. Cervical cancer (27.5%, n=100) and breast cancer (26.2%, n=95) were top two cancers. Nearly 70% (n=234) of participants were diagnosed with cancer within one year. Forty three percent of patients (n=156) only received chemotherapy. In addition, 10.5% (n=38) of participants received complementary therapy along with standard medical treatments. Less than 50% patients aware about their prognosis and only nearly 5% patient had performance status score above 3 (table 1).

B. Patient's Symptom Distress, Anxiety, Depression and Spiritual Well-being

Table 1 presented the mean scores of SDS, HADS and FACIT Sp-12. The total score of SDS was 23.86 which indicated that participants had low symptom distress. Appetite (M=2.49), fatigue (M=2.40) and pain (M=2.33) were the top three symptoms distress. The mean of HADS, anxiety subscale was 4.20 and for depression subscale was 3.61. The results indicated that patients were normal. However, the percentage showed that 9.9% patients had moderate anxiety and 11% patients had mild depression. The mean of total score FACIT Sp-12 was 38.01. "Meaning" (M=12.95) had the highest score, but quite similar with domains "faith" (M=12.94) and "peace" was being the lowest one (M=12.12).

Table 1. Mean Scores of SDS, HADS and FACIT Sp-12

Symptoms	Distress	Mean	SD	F	%
Appetite		2.49	1.23		
Fatigue		2.40	0.97		
Pain		2.33	1.03		
Nausea		2.20	0.98		
Insomnia		2.00	1.15		
Outlook		1.73	0.82		
Cough		1.46	0.72		
Bowel		1.44	0.79		
Appearance		1.39	0.65		
Breathing		1.28	0.63		
Concentration		1.28	0.65		
Total score SDS		23.86	6.36		
Hospital Anxiety and Depression					
Anxiety		4.20	3.20		
Normal				311	85.7
Mild				36	9.9
moderate				15	4.1
Severe				1	0.3
Depression		3.61	3.45		
Normal				305	84.0
Mild				40	11.0
moderate				18	5.0
FACIT Sp. 12 (spiritual well-being)					
Meaning		12.95	2.19		
Peace		12.12	2.48		
Faith		12.94	2.69		
Total score FACIT Sp. 12		38.01	6.33		

C. Correlation between ECOG, SDS, HADS and Facit Sp-12

Table 2 shows that ECOG had positive correlation with SDS, HADS-anxiety and HADS-depression ($p < 0.01$) and had negative correlation with meaning, peace ($p < 0.05$) and total Facit Sp-12 ($p < 0.01$). The symptom distress had positive correlation with HADS-anxiety and HADS-depression ($p < 0.01$), but it had negative correlation with peace ($p < 0.01$). HADS-anxiety had negative correlation with Facit Sp-12, meaning and peace ($p < 0.01$), while HADS-depression had negative correlation with all domains of Facit Sp-12 ($p < 0.01$). Moreover, negative correlation could be observed in overall domain Facit Sp-12 with other variables, however only faith showed no significant correlation with ECOG, SDS and HADS-anxiety.

Table 2. Correlation between ECOG, SDS, HADS and Facit Sp-12

	ECOG	SDS	HADS-A	HADS-D	Facit Sp-12	Meaning	Peace	Faith
ECOG	1							
SDS	.183**	1						
HADS-A	.307**	.487**	1					
HADS-D	.308**	.514**	.472**	1				
Facit Sp-12	-.114**	-.103	-.154**	-.264**	1			
Meaning	-.115*	-.068	-.119*	-.250**	.881**	1		
Peace	-.222**	-.177**	-.315**	-.282**	.840**	.648**	1	
Faith	-.042	-.022	.024	-.159**	.859**	.658**	.525**	1

* correlation is significant at the 0.05 level

** correlation is significant at the 0.01 level

IV. DISCUSSION

In this study, the majority participant was women. Previous literature mentioned that cancer prevalence was higher in women regarding with the number of breast cancer and cervical cancer which have highest prevalence in Indonesia (Effendy, C., Agustina, H., Kristanti M., Engels Y., 2015). This study also found that most patients diagnosed with breast and cervical cancer (Ministry of Health Indonesia, 2015) and they seek hospital treatment during less than 6 months, so it is means that they knew their condition when cancer had already in advanced stage. It was being a major health issues in Indonesia. Similar to the finding of previous study found that about 60 – 70% patients had come to the hospital when the cancer in stage 3 and 4 (Irawan, Hukom & Prayogo, 2008). In Indonesia, many patients tend to postpone their medical help because of several reasons such as lack of financial support, knowledge about treatment option and side effect of cancer treatment (Iskandarsyah, A., Suardi, Soemitro, Sadarjoen, Klerk, 2014) and some of them added complementary therapy in their treatment (Suardi, 2011).

Patient's Symptom Experiences

Loss of Appetite

Patients with advanced cancer experienced many suffering symptoms. This study found that loss of appetite was rated as the most severe symptom of distress. Several studies mentioned that loss of appetite could be a result of cancer treatments (e.g. radiation, or surgery, chemotherapy) or may be a manifestation of diseases progression that leads to inadequate nutrition intake (Doyle et al., 2006, Poole & Froggatt, 2002.). Up to 80% cancer patients reported that loss of appetite was one of their problems associated with loss of weight (West, 2009).

Fatigue

Fatigue is the other common problem in patients with advanced cancer. It is defined as a feeling of over tiredness and weakness, manifesting from physical and psychological problems deteriorating the quality life (Respini, Jacobsen, Thors, Tralongo & Balducci, 2003). The previous study reported fatigue as a top five symptom in cancer populations

estimating between 60% and 90% (Butt et al., 2008). Several factors influence fatigue including disease progression, under treatments and medications or other physical and psychosocial condition (Barnes & Bruera, 2002). Most patients did not discuss with health professionals regarding interventions to improve fatigue symptoms. Therefore it is poorly managed (Narayanan & Koshy, 2009).

Pain

Another symptom which is commonly correlated with advanced cancer patients is pain. Ross and Alexander (2001) reported anorexia, fatigue and pain as the top three symptom distress. One study in Indonesia also described that pain, fatigue, and nausea were three major symptoms among cancer patients influencing patients' quality of life (Widyaningsih, Petpichetchian, & Kitrungrrote, 2014). Other studies mentioned that pain is the most common symptom among advanced cancer patients (Effendy et al., 2014, Ferrell, & Coyle, 2010, Wilson et al., 2007). The previous study reported that around 64% of advanced cancer patients experienced pain and the proportion was higher than patients in treatment (van den Beuken-van Everdingen, et al., 2007).

Anxiety and Depression

This study found that only around 15% of patients had experienced anxiety and depression from mild to severe levels. Compared to other studies, the results are slightly different from other studies which pointed out that advanced cancer patients tended to have anxiety and depression (Hong & Tian, 2013, Khalil et al., 2016, Rosenstein, 2011.). However, some studies also revealed small percentages of anxiety and depression in cancer patients (Braamse et al., 2016, Kolva, Rosenfeld, Pessin, Breitbart & Brescia, 2011, Tsunoda et al., 2005). This result may be due to the strong support of family and relatives that help patients to cope with their condition and reduce their anxiety and depression (Kurmadjati, 2014, Nurpeni, Prapti, Yuliana, 2015). Another study also found that people with higher levels of spiritual well-being have lower levels of depression (Morita, Tsunoda, Inoue, & Chihara, 2000).

Spiritual Issues

Spiritual well-being is placed as an important role in patient centred care (Puchalski, 2012). The study result also showed that patients had strong spiritual well-being. Patients with a better religious and spiritual well-being would be more satisfied in their life and have a positive influence on

their quality of life (Puchalski, 2001). This also demonstrated that the spiritual care in Indonesia is well established. Most hospitals in Indonesia have spiritual caregivers that support patients and family in preventing spiritual distress (Effendy, et.al., 2014). Hospitals provide spiritual caregivers according to the patient's religion and help patients religiously in finding their spiritual comfort. Spiritual caregivers would give attention, sustainance, guidance, inner-healing and prayer for patients to achieve their life balance and positive impact in facing situation (Riyadi, 2012). Hence, spiritual issues among advanced cancer are not a big problem in Indonesia, and most of them have strong spiritual beliefs.

Correlation between ECOG Score, Symptom Distress, Anxiety & Depression and Spiritual Well-Being among Advanced Cancer Patients

The current study shows that the levels of depression and anxiety had positive correlations with poor performance status and levels of symptom distress. The results are consistent with other studies. Depression is the result of physical symptoms that going to more suffer (Ferrell & Coyle, 2010, Smith, Gomm, & Dickens, 2003). Another study also mentioned that diseases progress and decline physical status would increase the levels of anxiety (Spiegel & Giese-Davis, 2003). The literature reported that depression was associated with physical symptom burden among advanced cancer patients (Warmenhoven, Van, Vissers, & Prins, 2012). Other studies also indicated that pain and fatigue were predictors of anxiety and depression (Baltalarli et al., 2004, Lueboonthavatchai, 2007).

In this study, spiritual well-being was measured by FACIT-Sp 12 which contains three domains; meaning, peace and faith. Faith has strong correlation with religiosity (Nelson et al., 2009). As predicted, faith was found to be an important domain correlated with depression. Patients with strong faith had lower depression. Previous studies revealed that faith has negative correlation with depression (Bonelli, Dew, Koenig, Rosmarin & Vasegh, 2012, Farrell & Doolittle, 2004, Puchalski, 2001). Religion is important in people's daily life, religious beliefs and practices as reflected of faith help patients to cope with their stressful life, episode of depression symptoms and enhance health outcomes. They would tend to be more positive outlook and has stronger stress control in building up the coping mechanism (Bonelli et al., 2012, Puchalski, 2001).

V. CONCLUSION

In conclusion, the study provides essential information regarding advanced cancer patients' condition including physical, psychological and their spiritual aspects. Advanced cancer patients stated the most symptoms were appetite, fatigue, pain and only few patients experienced mild and moderate anxiety and depression. Mostly patients had a high spiritual well-being, hence faith was the most important predictor of good death. It can assist healthcare professionals to understand advanced cancer patients' degrees of symptom

distress, the levels of anxiety and depression and states of spiritual well-being which will provide better care for advanced cancer patients.

REFERENCES

- [1] Baltalarli, B., Oguzhanoglu, N., Karadag, F., Ozdel, O., Karagoz, N., & Atesci, F. (2004). Psychiatric morbidity among cancer patients and awareness of illness. *Supportive Care In Cancer*, 12(3), 161-167. <http://dx.doi.org/10.1007/s00520-003-0585-y>
- [2] Barnes, E., & Bruera, E. (2002). Fatigue in patients with advanced cancer: A review. *International Journal of Gynecological Cancer*, 12(5), 424-428. <http://dx.doi.org/10.1046/j.1525-1438.2002.t01-1-01147.x>
- [3] Beaton DE, Bombardier C, Guillemin F, Ferraz MB. (2000). Guideline for the process of cross-cultural adaption of self- report measures. *Spine* 25:3186-91
- [4] Bentur, N., Stark, D., Resnizky, S., & Symon, Z. (2014). Coping strategies for existencial and spiritual suffering in Israeli patients with advanced cancer. *Israel Journal of Health Policy Research*, 3(1), 21. <http://dx.doi.org/10.1186/2045-4015-3-21>
- [5] Bonelli, R., Dew, R., Koenig, H., Rosmarin, D., & Vasegh, S. (2012). Religious and spiritual factors in depression: Review and integration of the research. *Depression Research and Treatment*, 2012, 1-8. <http://dx.doi.org/10.1155/2012/962860>
- [6] Butt, Z., Rosenbloom, S. K., Abernethy, A. P., Beaumont, J. L., Paul, D., Hampton, D., ... & Cella, D. (2008). Fatigue is the most important symptom for advanced cancer patients who have had chemotherapy. *Journal of the National Comprehensive Cancer Network*, 6(5), 448-455. <http://dx.doi.org/10.6004/jnccn.2008.0036>
- [7] Chang, V., Hwang, S., Feuerman, M., & Kasimis, B. (2000). Symptom and quality of life survey of medical oncology patients at a Veterans Affairs medical center. *Cancer*, 88(5), 1175-1183. [http://dx.doi.org/10.1002/\(sici\)1097-0142\(20000301\)88:5<1175::aid-cncr30>3.0.co;2-n](http://dx.doi.org/10.1002/(sici)1097-0142(20000301)88:5<1175::aid-cncr30>3.0.co;2-n)
- [8] [Cohen, SR, Boston P, Mount BM, Porterfield P. Changes in quality of life following admission to palliative care units. Palliat Med 2001;15:363-586.](#)
- [9] Doyle, C., Kushi, L., Byers, T., Courneya, K., Demark-Wahnefried, W., & Grant, B. et al. (2006). Nutrition and physical activity during and after cancer treatment: An American Cancer Society guide for informed choices. *CA: A Cancer Journal For Clinicians*, 56(6), 323-353. <http://dx.doi.org/10.3322/canjclin.56.6.323>
- [10] Effendy, C., Agustina H. R., Kristanti M. S., & Yvonne, E. (2015). The nascent palliative care landscape of Indonesia. *European Journal of Palliative Care*, 22 (2).98 – 101
- [11] Effendy, C., Vissers, K., Osse, B., Tejawinata, S., Vernooij-Dassen, M., & Engels, Y. (2014). Comparison of problems and unmet needs of patients with advanced cancer in a European country and an Asian country. *Pain Practice*, 15(5), 433-440. <http://dx.doi.org/10.1111/papr.12196>
- [12] Ferrell B. & Coyle, N. (2010). *Oxford textbook of palliative nursing*. New York: Oxford University Press.
- [13] Hong, J., & Tian, J. (2013). Prevalence of anxiety and depression and their risk factors in Chinese cancer patients. *Supportive Care in Cancer*, 22(2), 453-459. <http://dx.doi.org/10.1007/s00520-013-1997-y>
- [14] Iskandarsyah, A., de Klerk, C., Suardi, D., Soemitro, M., Sadarjoen, S., & Passchier, J. (2014). Psychosocial and cultural reasons for delay in seeking help and nonadherence to treatment in Indonesian women with breast cancer: A qualitative study. *Health Psychology*, 33(3), 214-221. <http://dx.doi.org/10.1037/a0031060>
- [15] Khalil, A., Faheem, M., Fahim, A., Innocent, H., Mansoor, Z., Rizvi, S., & Farrukh, H. (2016). Prevalence of depression and anxiety amongst cancer patients in a hospital setting: A cross-sectional study. *Psychiatry Journal*, 2016, 1-6. <http://dx.doi.org/10.1155/2016/3964806>
- [16] Lueboonthavatchai, P. (2007). Prevalence and psychosocial factors of anxiety and depression in breast cancer patients. *Journal-Medical Association of Thailand*, 90(10), 2164.
- [17] McClain, C. S., Rosenfeld, B., & Breitbart, W. (2003). Effect of spiritual well-being on end-of-life despair in terminally-ill cancer patients. *The Lancet*, 361, 1603-1607. [http://dx.doi.org/10.1016/S0140-6736\(03\)13310-7](http://dx.doi.org/10.1016/S0140-6736(03)13310-7)
- [18] McCorkle, R., Cooley, M., & Shea, J. (1995). A user's manual for the symptom distress scale.

- [19] Ministry of Health Indonesia. (2015). Stop kanker. Infodatin: Pusat data & informasi kementerian kesehatan republik indonesia. Retrieved 20 December 2015, from <http://www.depkes.go.id/resources/download/pusdatin/infodatin/info-datin-kanker.pdf>
- [20] Morita, T., Tsunoda, J., Inoue, S., & Chihara, S. (2000). An exploratory factor analysis of existential suffering in Japanese terminally ill cancer patients. *Psycho-Oncology*, 9(2), 164-168. [http://dx.doi.org/10.1002/\(sici\)1099-1611\(200003/04\)9:2<164::aid-pon447>3.0.co;2-s](http://dx.doi.org/10.1002/(sici)1099-1611(200003/04)9:2<164::aid-pon447>3.0.co;2-s)
- [21] Narayanan, V., & Koshy, C. (2009). Fatigue in cancer: A review of literature. *Indian Journal of Palliative Care*, 15(1), 19. <http://dx.doi.org/10.4103/0973-1075.53507>
- [22] Nelson, C., Jacobson, C., Weinberger, M., Bhaskaran, V., Rosenfeld, B., Breitbart, W., & Roth, A. (2009). The role of spirituality in the relationship between religiosity and depression in prostate cancer patients. *Annals of Behavioral Medicine*, 38(2), 105-114. <http://dx.doi.org/10.1007/s12160-009-9139-y>
- [23] Nurpeni, Made R.K., Prapti, N.K., Kusmarjathi N.K. (2014). Hubungan dukungan keluarga dengan tingkat kecemasan pada pasien kanker payudara (Ca Mammæ) di ruang Angkosa III RSUP Sanglah Denpasar. *Coping Ners (Community of Publishing in Nursing)*, 2(3).
- [24] Poole, K., & Froggatt, K. (2002). Loss of weight and loss of appetite in advanced cancer: A problem for the patient, the carer, or the health professional?. *Palliative Medicine*, 16(6), 499-506. <http://dx.doi.org/10.1191/0269216302pm593oa>
- [25] Puchalski, C. & O'Donnell, E. (2005). Religious and spiritual beliefs in end of life care: how major religions view death and dying. *Techniques In Regional Anesthesia And Pain Management*, 9(3), 114-121. <http://dx.doi.org/10.1053/j.trap.2005.06.003>
- [26] Puchalski, C. (2012). Spirituality in the cancer trajectory. *Annals of Oncology*, 23(suppl 3), 49-55. <http://dx.doi.org/10.1093/annonc/mds088>
- [27] Puchalski, C. M. (2001). The role of spirituality in health care. In *Baylor University Medical Center. Proceedings* (Vol. 14, No. 4, p. 352). Baylor University Medical Center
- [28] Respini, D., Jacobsen, P., Thors, C., Tralongo, P., & Balducci, L. (2003). The prevalence and correlates of fatigue in older cancer patients. *Critical Reviews in Oncology/Hematology*, 47(3), 273-279. [http://dx.doi.org/10.1016/s1040-8428\(02\)00176-2](http://dx.doi.org/10.1016/s1040-8428(02)00176-2)
- [29] Riyadi, A. (2012). Dakwah terhadap pasien (telaah terhadap model dakwah melalui sistem layanan bimbingan rohani Islam di rumah sakit). *Konseling Religi*, 3(2), 76-95.
- [30] Rodin, G., Lo, C., Mikulincer, M., Donner, A., Gagliese, L. and Zimmermann, C. (2009). Pathways to distress: The multiple determinants of depression, hopelessness, and the desire for hastened death in metastatic cancer patients. *Social Science & Medicine*, 68(3), pp.562-569.
- [31] Rosenstein, D. L. (2011). Depression and end-of-life care for patients with cancer. *Dialogues in Clinical Neuroscience*, 13(1), 101.
- [32] Ross, D. D., & Alexander, C. S. (2001). Management of common symptoms in terminally ill patients: Part I. *American family physician*, 64(5).
- [33] Roth, A. & Massie, M. (2007). Anxiety and its management in advanced cancer. *Current Opinion In Supportive And Palliative Care*, 1(1), 50-56. <http://dx.doi.org/10.1097/spc.0b013e32813aeb23>
- [34] Rudy, M., Widyadharma, P. E., & Oka Adnyana, I. M. (2012). Reliability Indonesian version of the Hospital Anxiety and Depression Scale (HADS) of stroke patients in Sanglah General Hospital Denpasar. <https://www.researchgate.net/publication/279861249>
- [35] Smith, E., Gomm, S., & Dickens, C. (2003). Assessing the independent contribution to quality of life from anxiety and depression in patients with advanced cancer. *Palliative Medicine*, 17(6), 509-513. <http://dx.doi.org/10.1191/0269216303pm781oa>
- [36] Spiegel, D. & Giese-Davis, J. (2003). Depression and cancer: Mechanisms and disease progression. *Biological Psychiatry*, 54(3), 269-282. [http://dx.doi.org/10.1016/s0006-3223\(03\)00566-3](http://dx.doi.org/10.1016/s0006-3223(03)00566-3)
- [37] Suls J., & Rothman, A. (2004). Evolution of the biopsychosocial model: prospects and challenges for health psychology. *Health Psychology*, 23, 119-125.
- [38] Teunissen, S., Wesker, W., Kruitwagen, C., de Haes, H., Voest, E., & de Graeff, A. (2007). Symptom prevalence in patients with incurable cancer: A systematic review. *Journal of Pain and Symptom Management*, 34(1), 94-104. <http://dx.doi.org/10.1016/j.jpainsymman.2006.10.015>
- [39] Vallurupalli, M., Lauderdale, K., Balboni, M., Phelps, A., Block, S., & Ng, A. et al. (2012). The role of spirituality and religious coping in the quality of life of patients with advanced cancer receiving palliative radiation therapy. *The Journal of Supportive Oncology*, 10(2), 81-87. <http://dx.doi.org/10.1016/j.suponc.2011.09.003>
- [40] van den Beuken-van Everdingen, M., de Rijke, J., Kessels, A., Schouten, H., van Kleef, M., & Patijn, J. (2007). Prevalence of pain in patients with cancer: A systematic review of the past 40 years. *Annals of Oncology*, 18(9), 1437-1449. <http://dx.doi.org/10.1093/annonc/mdm056>
- [41] Walsh, D., Donnelly, S., & Rybicki, L. (2000). The symptoms of advanced cancer: Relationship to age, gender, and performance status in 1,000 patients. *Supportive Care in Cancer*, 8(3), 175-179. <http://dx.doi.org/10.1007/s005200050281>
- [42] Warmenhoven, F., van Weel, C., Vissers, K., & Prins, J. (2012). Screening instruments for depression in advanced cancer patients: What do we actually measure?. *Pain Practice*, 13(6), 467-475. <http://dx.doi.org/10.1111/papr.12012>
- [43] West. (2009). *Loss of Appetite and Weight Loss: A Very Common and Difficult Problem for Cancer Patients | GRACE :Treatments & Symptom Management*. *Cancergrace.org*. Retrieved 22 June 2017, from <http://cancergrace.org/cancer-treatments/2009/02/16/acs-mgmt/>
- [44] Widyarningsih, S., Petpichetchian, W., & Kitrungrrote, L. (2014). The quality of life of Indonesian patients with advanced cancer. *Songklanagarind Journal of Nursing*.
- [45] Wilson, K. G., Chochinov, H. M., McPherson, C. J., LeMay, K., Allard, P., Chary, S., ... & Kuhl, D. (2007). Suffering with advanced cancer. *Journal of Clinical Oncology*, 25(13), 1691-1697.

The Correlation of Salt Consumption and Stress to Incidence of Hypertension at Pahandut Health Center Palangka Raya City

Siti Santy Sianipar¹⁾, Septian Mugi Rahayu²⁾

^{1), 2)} Eka Harap College of Health Sciences, Palangka Raya, Indonesia
E-mail: santiromauli@gmail.com

Abstract. Without we realized, the rising of globalization in all fields with technology development and industry, have been make our behavior and lifestyle changes to be increasing rates of hypertension. Hypertension is a state of increased blood pressure with systolic ≥ 140 mmHg dan diastolic ≥ 90 mmHg. This study aims to analyze the correlation between salt consumption and stress to the incidence of hypertension in patients at Pahandut Health Center Palangka Raya City. The design of this study is quantitative analytic observational by using the type of analytic cross sectional study design. The population of this study were patients who visited Pahandut Health Center and sampling technique was total sampling with 230 samples. The data collected using questionnaire and analyzed by chi square test. Based on analysis result that salt consumption is related to hypertension occurrence with OR = 3,3 (95% CI: OR = 1,454 - 7,723), and stress related to hypertension occurrence with OR = 20,9 (95% CI: OR = 5,942 - 73,565). Based on the above results, the consumption of salt and stress have a correlation to the incidence of hypertension. It is recommended to perform regular blood tests at least once a month, low-salt diet and restrict foods that containing high sodium, avoiding stress or emotional state that can trigger hypertension

Keywords: hypertension, consumption of the salt, stress

I. INTRODUCTION

The increasing flow of globalization in all fields with the development of technology and industry, without we realize it has made many changes in behavior and lifestyle in society. With the changes in lifestyle with the background of socio-economic life, then this can spur the increase of hypertension disease [1].

Hypertension is a condition in which a person has elevated blood pressure above normal with systolic ≥ 140 mmHg and diastolic ≥ 90 mmHg [2]. According to the World Health Organization (WHO), high blood pressure disease is an increase in systolic blood pressure greater than or equal to 160 mmHg and or diastolic pressure equal to or greater than 95 mmHg.

Hypertension disease often occurs without symptoms those are not easily recognizable even people do not feel a complaint. Many people assume that if suffering from high blood pressure that must be marked by a complaint of headaches or dizziness continuously. Because of that mistake, not all patients go to medical treatment, to check or control their blood pressure. Hypertension is difficult to realize because it has no specific symptoms. Meanwhile, if blood pressure continues to rise and within a long period of time and not immediately overcome it could cause complications of a congenital disease of hypertension [3].

According to the World Health Organization (WHO) it is estimated that people with hypertension in worldwide are 600 million people, with 3 million deaths every year. In America it is estimated that 1 in 4 adults suffer from

hypertension. The prevalence of hypertension will continue to rise sharply and predicted by 2025 there will be about 29% of adults worldwide suffering from hypertension. Hypertension can cause to mortality of about 8 million people each year and 1.5 million mortality occur in Southeast Asia and one third of the population suffer from hypertension [4].

According to the report of basic health research (Riskesda) in 2007 [5], based on the results of blood pressure measurement, the prevalence of hypertension in the population aged 18 years and over in Indonesia was 31.7%. The highest prevalence of hypertension was in South Kalimantan Province and the lowest was in West Papua Province. While the province of Central Kalimantan was the top ten of the provinces that have a hypertension prevalence higher than the national rate [6].

Based on the causes, hypertension could be divided into 2 (two), they are primary hypertension and secondary hypertension. Approximately 95% of hypertension that occurs in the community is primary hypertension which has unknown causes specifically. Nevertheless, various studies have pointed to various factors related to the rate of primary events [7].

Factors that causing hypertension are factors that can be modified and can not be modified. Factors that can not be modified are age, gender and family history. While one of the factors that can be modified is the lifestyle such as eating foods that contain high salt, and other causes of hypertension is the health status such as stress levels [8]. Along with the increasing cases of hypertension in Indonesia and it becomes a big problem then the government held hypertension

prevention by making policy in the form of hypertension guidance according to technological progress and local condition, strengthening logistics and distribution for early detection of heart disease and hypertension risk factors, developing human resources, financing systems, strengthening networks, also monitoring and evaluating implementation. The countermeasures of hypertension and prevention also made various efforts to prevent and manage non-communicable diseases such as hypertension with the establishment of Non-Communicable Disease Control Directorate [9].

A diet with high sodium intake may affect health status. According to the research of Fitri and Sunarno (2016) [10]. showed that the percentage of households consuming iodized salt in Central Kalimantan Province is 90.5%, higher than the national consumption percentage that only 77.1%, but with uneven distribution among districts / cities and between rural and urban areas.

Results of research conducted by Heryantino (2016) [11], stress levels in hypertensive patients who underwent treatment at Panarung health center that was as much as 37% have mild stress, 50% experience stress and 13% have severe stress.

According to Central Kalimantan Provincial Health Office data from 14 districts in 2014, hypertension cases ranks first in Palangka Raya City [12].

While based on data at the Health Department of Palangka Raya, hypertension cases have increased in the period 2012 to 2014. The top of ten diseases in the Palangkaraya in 2012, hypertension cases ranked fifth, while in 2013 [13] up to the third and in 2014 increased again so that up to the second [14].

Meanwhile, among all of health centers in Palangka Raya city, Pahandut health center which has the highest cases of hypertension in the Palangka Raya. The visits number of hypertension patients at the Pahandut health center in 2013 reached 6630 new cases while in 2014 increased to 6800 new cases. And cases of hypertension in 2015 amounted to 8730 new cases [15]. With the increasing cases of hypertension in Pahandut health center during the last 2 years and the absence of research related hypertension then the researchers are interested to know more about hypertension disease in Pahandut health center. Starting from the description before and hypertension disease is a disease that has big prevalence in Palangka Raya, hence the researcher is interested to investigate about the correlation of salt consumption and stress to number of hypertension incidence in patient at Pahandut health center Palangka Raya city.

II. METHODS

Analytical cross-sectional design is a research design that aims to determine the relationship between certain factors and disease or health problems [16].

This research tend quantitative analytic observational with type of study design Analytical cross section (analytic cross

sectional). In this case to know the corelation of independent variable and dependent variable in patient at Pahandut health center.

This research was conducted at Pahandut health center Palangka Raya. The population in the study were 18-year-old patients who treated at Pahandut health center Palangka Raya city which amounted to 230 people. The sampling technique used total sampling by taking all members of the population into samples with inclusion criteria is Patient adult aged ≥ 18 years in Pahandut health center Palangka Raya, communicative, and willing to be a research respondent. While the exclusion criteria were Patients <18 years old, in severe illness and unwilling to be a respondent. The data collected by measuring blood pressure with systolic and diastolic by Sphygmomanometer mercury and stethoscope. The data of salt consumption habits and stress related with hypertension collected by researcher with measurements through interviews and questionnaires to respondents that contain questions. The data of stress factor collected by Depression Anxiety Stress Scale (DASS) consisting of 14 questions and assessment of stress when respondents get a score of 26-33

Data analyzed by univariate analysis to describe frequency distribution of independent variable and dependent variable (hypertension). Bivariate analysis was done by using Chi Square test with degree of trust 95%.

III. RESULT AND DISCUSSION

A. Univariate Analyze

Based on the result of univariate analysis with 230 patients get treated in Pahandut health center can be seen in the following table resume 4.1

Tabel 4.1

Resume of Univariate Analysis Result			
No	Variables and catagories	Frequency (N)	Percentage (%)
1	Hypertension		
	Hypertension	107	46,5
	Not Hypertension	123	53,5
2	Gender		
	Male	75	32,6
	Female	155	67,4
3	Salt consumption		
	Excess	176	76,5
	Not excess	54	23,5
4	Stress		
	Yes	46	20,0
	No	184	80,0

Table 4.1 shows that the proportion of hypertensive patients taking outpatient treatment at Pahandut Health Center Palangka Raya is 107 (46.5%), with 155 (67.4%) female gender, excessive salt consumption is 176 people (76.5 %), and stress as much as 46 (20%) people

B. Bivariat Analyze

1) *Excessive salt consumption related to hypertension in patients who visited Pahandut health center Palangka Raya can be seen in table 4.2 as follows:*

Table 4.2

Resume of Bivariate Analysis Result about Excessive Salt Consumption
Related to Hypertension

Related to Hypertension							
Excessive salt consumption	Hypertension Occurrence				Total	P value	OR (95% CI)
	Hyper Tension		Not hyper Tension				
	N	%	N	%			
Excessive salt consumption	95	54	81	46	176 (100)	0,000	4,105 (2,025 - 8,322)
Normal salt consumption	12	22	42	78	54 (100)		
Jumlah	107	46	123	54	230 (100)		

Table 4.2 shows that p value = 0,000 means there is a significant correlation between excessive salt intake and hypertension occurrence.

Based on the results of statistical tests showed that there is a significant relationship between excessive salt consumption with hypertension with p value <0.05 is equal to 0.001. With the result of analysis obtained value of OR: 4,1, means someone by consuming excess salt have risk 4 (four) times higher than people who do not consume excess salt.

Sodium or salt contained in the food consumed is calculated in the blood. Sodium has attractive properties and holds fluid outside the cell that could cause fluid build up in the body and blood volume to increase. The increase in volume or fluid makes the heart works harder to drain more blood into the blood vessels, so that increasing blood pressure and triggering the occurrence of hypertension [17].

This is consistent with the study of Sugianto (2007) [18] which states there is a relationship between excessive salt intake with the incidence of hypertension is patients who often excessive salt intake have a 3 times risk of suffering from hypertension compared with not consuming foods high of salt.

Respondents are not fully aware that the habit of consuming excess salt is a risk factor for hypertension and they are difficult to avoid the habit of consuming salt because it is used to eat foods that contain high salt.

2) *The correlation of stress with hypertension in patients who visit the Pahandut health center could be seen in table 4.3 as follows:*

Table 4.3
Resume of Bivariate Analysis Result about Stress Related to
Hypertension

Stres	Hypertension Occurrence				Total	P value	OR (95% CI)
	Hypertension		Not hypertension				
	N	%	N	%			
Yes	43	94	3	6	46 (100)	0,000	26,875 (8,021 - 90, 041)
No	64	35	120	65	184 (100)		
Total	107	46	123	54	230 (100)		

Table 4.3 shows that p value = 0,000 means that there is a significant correlation between stress and the incidence of hypertension.

Based on the results of statistical tests showed that there is a significant correlation between stress to hypertension with p value <0.05 is 0.000. With the results of the analysis obtained OR value: 26.8, means that someone who experiences stress more at risk 27 (twenty seven) times

suffer from hypertension when compared with those who do not experience stress.

Stress or tension of the soul occurs due to stimulation of the kidney glands and release the hormone adrenaline so that spur the heart beat faster and stronger and increase the hormone cortisol that could raise blood pressure [19].

The results of this study in accordance with the results of Purwati (2011) [20] which states there is a relationship between stress with the incidence of hypertension is the patients who have high stress has a risk of 2.47 times suffering from hypertension compared with not stress.

IV. CONCLUSIONS

1. The proportion of hypertensive patients who visited Pahandut Health Center Palangka Raya is 46.5%
2. Excessive salt consumption related to cause-effect with the incidence of hypertension: Excessive salt consumption has an effect of 3 (three) times higher than those who do not consume excess salt
3. Stress related to cause-effect with the incidence of hypertension: stress affects 21 (twenty one) times suffering from hypertension when compared with those who do not experience stress

V. SUGGESTION

In order to popularize the recommendations then the patient is advised as follows:

1. Perform regular blood tests at least once a month
2. Low-salt diet and reduce foods that containing high sodium.
3. Avoiding stress or emotional state that could trigger hypertension

ACKNOWLEDGMENT

We would like to thank Causal Production for permits to use and revise the template provided by Causal Productions. Original version of this template was provided by courtesy of Causal Productions (www.causalproductions.com)

REFERENCES

- [1] Dalimartha, Setiawan, dkk *Care your self hipertensi*, Penebar Plus, Jakarta, 2008
- [2] Brunner and Studart, *Keperawatan Medikal Bedah*, Ed.8, Jakarta : EGC, 2001, Vol.2
- [3] Hart, Julian Tudor. *Tanya Jawab Seputar Tekanan Darah Tinggi*, Ed.2, Jakarta : Arcould , 2009
- [4] Setiawan, Zamhir (2006). *Prevalensi Dan Determinan Hipertensi Di Pulau Jawa Tahun 2004*, Jurnal kesehatan Masyarakat Nasional Vol. 1, Nomor 2, pp. 57-62, Oktober 2006
- [5] (2007), Riskesda, Province Report kalteng. [Online]. Available : [www/http://profilkalteng.co.id](http://profilkalteng.co.id)
- [6] (2014) Infodatin, *Hipertensi* [Online]. Available: www.depkes.go.id/download.php?file=download./info datin/infodatin-hipertensi.pdf

- [7] Palmer, Anna dan Williams Bryan, *Simple Guide Tekanan Darah Tinggi*, Jakarta : Erlangga,2007
- [8] Fauziah, *Berbagai Faktor Yang berhubungan Dengan Kejadian Hipertensi Pada Lansia (Studi Kasus di Rumah Sakit dr.Kariadi Semarang)*, tesis,Universitas Diponogoro, Semarang, Juli, 2011
- [9] Kementerian Kesehatan RI. *Pedoman Teknis Penemuan Dan Tatalaksana Hipertensi*, Direktorat Pengendalian Penyakit Tidak menular Subdit Pengendalian Penyakit Jantung dan Pembuluh Darah,2013
- [10] Fitri, Nyoman dan Sunarno. *Kecukupan Penggunaan Garam Beryodium Di Provinsi Kalimantan Tengah Berdasarkan Hasil Tes Cepat*, Jurnal Ilmu Kefarmasian Indonesia, vol. 14, No.2, pp 141-146, Sept,2016
- [11] Heryantino, Mart, *Hubungan Tingkat Stres dengan kejadian Hipertensi Pada Pasien di Wilayah Puskesmas Panarung Palangka Raya*, Skripsi, STIKes Eka Harap Palangka Raya, Juni,2016
- [12] Dinas Kesehatan Provinsi Palangka Raya, *Profil Kesehatan Provinsi Kalimantan Tengah*, 2014
- [13] Dinas Kesehatan Kota Palangka Raya, *Profil Kesehatan Kota Palangka Raya* ,2013
- [14] Dinas Kesehatan Kota Palangka Raya, *Profil Kesehatan Kota Palangka Raya*, 2014
- [15] Dinas Kesehatan Kota Palangka Raya *Profil Kesehatan Kota Palangka Raya*, 2015
- [16] Lapau, Buchori, *Metode Penelitian Kesehatan*, Jakarta : Yayasan Pustaka Obor Indonesia, 2013
- [17] Askes, *Hipertensi The Silent Killer Laksana Teroris*, Info Askes Buletin Bulanan PT. Askes,Edisi Mei,2012
- [18] Sugiarto, Aris. *Faktor – Faktor Yang Berhubungan Dengan Hipertensi Grade II Pada Masyarakat (Studi Kasus Di Karanganyar)*, Tesis, Universitas Diponogoro, Semarang,Nov, 2007
- [19] Townsend, Ray. *Indeks 100 Tanya Jawab mengenai Darah Tinggi (Hipertensi)*, Jakarta : PT Indeks,2010
- [20] Purwati, Sri. *Faktor – Faktor Yang Berhubungan Dengan Kejadian Hipertensi Di Poliklinik PT Angkasa Putra II Persero Bandara Soekarno Hatta*, tesis, Urindo,Jakarta,2011

Study of the Couples Knowledge about Vasectomy in Area of Puskesmas Bengkuring Samarinda Year of 2017

Stephanie Sorta Llyod¹⁾, Siti Saidah²⁾, Nuuva Yusuf³⁾

¹⁾Akademi Kebidanan Mutiara Mahakam, Samarinda, Indonesia
E-mail : sortastephanie@gmail.com

²⁾Akademi Kebidanan Mutiara Mahakam, Samarinda, Indonesia
E-mail : sitisaidah@akbidmm.ac.id

³⁾Akademi Kebidanan Mutiara Mahakam, Samarinda, Indonesia
E-mail : nuuvayusuf@akbidmm.ac.id

Abstract. Indonesia is one of the developing country which has a demographic problem due to high birth rate. Thus, the government create the Family Planning Program or *Keluarga Berencana* (KB) where every married one is expected to take a role in this program. According to BKKBN, men participation takes only 1,5% which are 1,3% condom acceptor and 0,2% vasectomy acceptor. This research aims to figure the knowledge of couples about vasectomy in the area of Puskesmas Bengkuring Samarinda 2017. The design of this research is using observational descriptive. The sampling technique is total sampling. there are 30 samples. Based on the research result, respondents who have good knowledge are 23 respondents (77%), fair knowledge about 6 respondents (20%), and poor knowledge is 1 respondent (3%). In conclusion, young couples with fertile phase in Puskesmas bengkuring Samarinda Area have a good knowledge about 23 respondents (77%) out of 30 respondents

Keywords: knowledge, fertile phase, vasectomy

I. INTRODUCTION

According to Indonesian Health Demography Survey (SDKI) in 2007, men participation is only 1,5% nationwide, which is 1,3% condom acceptor and 0,2% vasectomy acceptor. Regarding to the data, it can be seen that men participation in Family Planning Program (KB) is still low compared to in 2006 survey. In many developing countries, Pakistan is 5,2%, Bangladesh is 13,9%, Nepal is 24%, Malaysia is 16,8%, and Japan is 80% (BKKBN, 2006). SDKI shows the *Contraceptive Prevalence Rate* (CPR) escalation or utilization of contraception is increasing from 54,7% in 1994 to 57,4% in 2010. This because of the awareness of young couple in fertile phase to use contraception is better, but the CPR still fail to reach the target of national *Total Fertility Rate* (TFR) which is 2,1 (BPS, 2011).

The result of previous research showed that the additional in MOP program of KB participants as of June 2012 only took 588 participants or 0,2%. This is very poor addition compared to other KB acceptor like MOW reached 4351 participants (1,3%), IUD reached 22.395 (6,6%) and injection acceptor reached 183.395 (53,8%). In West Java, there are 188 participants of new MOP (BKKBN, 2012).

According to this background and the previous research, researcher is interested to conduct research about "Study of Couple Knowledge in Fertile Phase about Vasectomy in Area of Puskesmas Bengkuring Samarinda 2017".

II. METHODS

This research is a descriptive research aims to describe something objectively and using survey method which has no any correlations with the samples. This research does not targetting the whole object at once but only a half from the total samples and its result is regarded as the representation of the research. The research is conducted in area of Puskesmas Bengkuring in January to March 2017.

The populations of this research is 30 couples of husbands and wives by using total sampling method.

The instruments used in this research are questionnaire, check list, and trial content. The questionnaire has been determined by the researcher and ready to be selected by the respondents, whereas the checklist is a modified questionnaire in a form of multiple choice. The check list is different from the questionnaire. In check list, respondents are given freedom to answer the questions based on what the respondents see, say, what they possess, or their arguments. The researcher giving score between 5 to 15 each questions, while the trial content used to try the questions whether the content or the substantial measure meet the substance of the answers.

Data collection technique in this research is using primary and secondary data. Primary data obtained from the couple knowledge about vasectomy based on the questionnaire. Secondary data obtained from previous research on the same location. data is selected by only taking the couples who have more than two children in Puskesmas Bengkuring

Samarinda. Data analysis using univariate analysis and numeric data using *mean, median, and deviation standard*.

III. RESULT

Table 1.1 frequency distribution knowledge of young couple about vasectomy based on age

Age	Knowledge						Total	%
	Good	%	Fair	%	Poor	%		
20-35 y.o.	9	30%	0	0%	1	3%	10	33%
36-45 y.o.	14	70%	6	20%	0	0%	20	67%
Total							30	100%

According to the table 1.1 above, there are 6 respondents aged 36-45 years old have fair knowledge (20%), and 14 respondents good knowledge (47%), whereas for respondents aged 20-35 years old, there are 9 respondents have good knowledge (30%) and poor knowledge 1 person (3%).

Table 1.2 frequency distribution knowledge of young couple about vasectomy based on education

Education	Knowledge						Total	%
	Good	%	Fair	%	Poor	%		
Elementary school	0	0%	0	0%	1	3%	1	3%
Junior High School	3	10%	0	0%	0	0%	3	10%
Senior High school	18	60%	6	20%	0	0%	24	80%
College	2	7%	0	0%	0	0%	2	7%
Total							30	100%

According to the table 1.2 above, frequency distribution knowledge of young couple about vasectomy based on respondents' education, respondents with Senior High School diploma has 18 respondents with good knowledge (60%), fair knowledge 6 respondents (20%), and college alumni with good knowledge are 2 respondents (7%). While elementary school alumni is 1 respondent (3%) with poor knowledge.

Table 1.3 frequency distribution knowledge of young couple about vasectomy based on job

Job	Knowledge						Total	%
	Good	%	Fair	%	Poor	%		
Army/police /civil servant	2	7%	0	0%	0	0%	2	7%
Office worker	21	70%	4	13%	0	0%	25	83%
Entrepreneur	0	0%	2	7%	1	3%	3	10%
Farmer	0	0%	0	0%	0	0%	0	0%
Labor	0	0%	0	0%	0	0%	0	0%
Total							30	100%

In this research, respondents' job divided by 5. Among them there are office workers, entrepreneurs, and civil servants such as army and police. There are 21 respondents with good

knowledge (63%) from office workers respondents, 4 respondents with fair knowledge (13%). In civil servants respondents, there are only 2 people with good knowledge (7%) and entrepreneurs with fair knowledge are 2 respondents (7%), while there is 1 respondent with poor knowledge (3%).

Table 1.4 knowledge results of young couple about vasectomy

Criteria	Frequency	Percentage
Good	23	77%
Fair	6	20%
Poor	1	3%
Total	30	100%

Based on the result above, the percentage of 23 respondents with good knowledge is 77%, 6 respondents with fair knowledge 20%, and there is one respondent with poor knowledge 3%.

A. According to age

Table 1.1 shows that from total amount of 30 respondents, mostly aged between 36-45 years old, it is because those ages are fertile and eager to obtain more information. This statement has ever mentioned by Sarlito (2008). He said that ages in line with behavior as we learn from the lessons of our experiences. And it is believed that IQ capacity will be decreased along with aging process, especially for specific ability such as vocabularies and general knowledge.

The researcher assumed that either men or women in fertile phase aged between 36-45 years old tend to accept many informations, particularly the knowledge about vasectomy. According to the terminology of age, individual's age marked since the first day of birth until reach the annual anniversary, and the way of thinking of people are getting better as the age continues. (Notoatmodjo, 2008).

B. According to education

Referring to the table 1.2, we can see that from all 30 respondents, based on their education degree, 80% of respondents are senior high school alumni and small amount of them are college alumni (7%). Knowledge of young couple with fertile phase about vasectomy influenced by education. This also toned by Notoatmodjo (2008) that the higher education is, chance to receive information is likely easier, hence many knowledge to be ascertained.

Researcher assumed that the result is aligned with Notoatmodjo (2008) that the higher education is, chance to receive information is likely easier, hence many knowledge to be ascertained. In this case, researcher have also another opinion that to get an equal and formal education, affected by the long commute of school, financial factor, and the will of someone to achieve higher education degree.

C. According to job

According to the table 1.3, there are 30 respondents grouped by their jobs, we can see that office workers with good

knowledge reach 70% and fair knowledge shared 13%. Civil servants like army, police, and civil servants with good knowledge take 7% of them, fair knowledge 7%, and poor knowledge 3%.

This also aligned with the theory proposed by Notoatmodjo (2008) that basically, people with jobs tend to have more experiences, so in their social relationships they are more interact with many people. Interacting with the social life and social environment especially colleague and chief is a daily routine in workplace. According to my point of view, there is a correlation between job and education. The higher education is, the job is also better, vice versa.

Researcher also have opinion that work environment could affect knowledge of workers. It is believed that interaction between workers can increase insight by sharing information and knowledge. Social media also have role in increasing knowledge.

D. Knowledge results of young couple about vasectomy.

Research result shows that the knowledge of young couple in fertile phase in Puskesmas Bengkuring Samarinda. From total 30 respondents, it can be summarized there are 23 respondents with good knowledge (77%), 6 respondents with fair knowledge (20%) and respondent with poor knowledge only 1 (3%).

It is caused by the lack of information of Family Planning Program (Keluarga Berencana), especially in the matter of vasectomy.

Notoatmodjo (2008) noted that knowledge is a result of "knowing", and can only be obtained through sense of certain objects by sight, hearing, smelling, feel, and touching.

According to the experience and research, behavior based on knowledge will be feasible than that it does not.

In this case, people of Puskesmas of Bengkuring lack of information about vasectomy counseling due to lack of health experts.

IV. CONCLUSIONS

The result of knowledge young couple in fertile phase in Puskesmas of Bengkuring Samarinda year of 2017 is 30 respondents of young couple in fertile phase, respondents with good knowledge is 23 respondents (77%).

REFERENCES

- BKKBN. 2006. Profil Perkembangan Pelaksanaan Program KB di Indonesia. Jakarta : BKKBN
- BPS, BKKBN. 2011. Survey Demografi Kesehatan Indonesia 2011. Jakarta.
- BKKBN. 2012. Survei demografi dan kesehatan Indonesia 2012: Kesehatan Reproduksi Remaja. Jakarta: BKKBN.
- Erfandi. 2009. Pengetahuan dan faktor-faktor yang mempengaruhi. Diunduh 14 April 2015 <http://forbetterhealth.wordpress.com/2015/04/19/pengetahuan-dan-faktor-faktor-yang-mempengaruhi>

Notoatmodjo S. 2007 Promosi Kesehatan dan Ilmu Perilaku. Jakarta : PT.Rineka Cipta.

Notoatmodjo S. 2008. Ilmu Perilaku Kesehatan. Jakarta : PT.Rineka Cipta.

A Decade of HIV/AIDS in East Kalimantan, Indonesia

Swandari Paramita¹⁾, Evi Fitriany²⁾, Meiliati Aminyoto³⁾, Muhammad Khairul Nuryanto⁴⁾, Rahmat Bakhtiar⁵⁾, Krispinus Duma⁶⁾

¹⁾ *Medicine, Mulawarman University, Samarinda, Indonesia*
E-mail: swandariparamita@gmail.com

Abstract. Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the human immunodeficiency virus (HIV). According to estimates by WHO and UNAIDS, 36.7 million people were living with HIV globally at the end of 2016. Indonesia had 48,000 new HIV infections in 2016. There were 620,000 people living with HIV in 2016. This paper explains about epidemiologic characteristics of HIV/AIDS cases in a decade from 2007 to 2016 in East Kalimantan. The prevalence of HIV/AIDS cases has grown steadily in this period, reported as 1.34 cases per 100 000 persons in 2007 to 7.16 cases per 100 000 persons in 2016, more than 5-fold increase. The result of this study will be useful for developing new prevention strategies for HIV/AIDS transmission in East Kalimantan.

Keywords: HIV, AIDS, East Kalimantan, Indonesia

I. INTRODUCTION

Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the human immunodeficiency virus (HIV). The human immunodeficiency virus (HIV) infects cells of the immune system, destroying or impairing their function. Infection with the virus results in progressive deterioration of the immune system, leading to "immune deficiency." The immune system is considered deficient when it can no longer fulfill its role of fighting infection and disease. Infections associated with severe immunodeficiency are known as "opportunistic infections" because they take advantage of a weakened immune system. Acquired immunodeficiency syndrome (AIDS) is a term which applies to the most advanced stages of HIV infection. It is defined by the occurrence of any of more than 20 opportunistic infections or HIV-related cancers (WHO, 2017^a).

HIV can be transmitted through unprotected sexual intercourse (vaginal or anal), and oral sex with an infected person; transfusion of contaminated blood; and the sharing of contaminated needles, syringes, surgical equipment or other sharp instruments. It may also be transmitted between a mother and her infant during pregnancy, childbirth, and breastfeeding (WHO, 2017^b).

According to estimates by WHO and UNAIDS, 36.7 million people were living with HIV globally at the end of 2016. That same year, some 1.8 million people became newly infected, and 1 million died of HIV-related causes. Since the beginning of the epidemic, more than 70 million people have been infected with the HIV virus and about 35 million people have died of HIV. Globally, 36.7 million [30.8–42.9 million] people were living with HIV at the end of 2016. An estimated 0.8% [0.7–0.9%] of adults aged 15–49 years worldwide are living with HIV, although the burden of the

epidemic continues to vary considerably between countries and regions (WHO, 2017^c).

In 2016, Indonesia had 48,000 (43,000 – 52,000) new HIV infections and 38,000 (34,000 – 43,000) AIDS-related deaths. There were 620,000 (530,000 – 730,000) people living with HIV in 2016, among whom 13% (11% - 15%) were accessing antiretroviral therapy. Among pregnant women living with HIV, 14% (12% - 16%) were accessing treatment or prophylaxis to prevent transmission of HIV to their children. An estimated 3200 (2500 - 4000) children were newly infected with HIV due to mother-to-child transmission. The key populations most affected by HIV in Indonesia are sex workers, with an HIV prevalence of 5.3%; gay men and other men who have sex with men, with an HIV prevalence of 25.8%; people who inject drugs, with an HIV prevalence of 28.76%; transgender people, with an HIV prevalence of 24.8%; and prisoners, with an HIV prevalence of 2.6%. Since 2010, new HIV infections have increased by 68% and AIDS-related deaths have decreased by 22% (UNAIDS, 2018).

Although national HIV prevalence is still low, there has been a rapid increase in reported cumulative AIDS cases, making the epidemic in Indonesia one of the fastest growing in Asia (Desai et al., 2010). HIV/AIDS in Indonesia is one of Asia's fastest-growing epidemics. In 2010, it is expected that 5 million Indonesians will have HIV/AIDS (UNAIDS, 2018). In 2007, Indonesia was ranked 99th in the world by prevalence rate, but because of low understanding of the symptoms of the disease and high social stigma attached to it, only 5–10% of HIV/AIDS sufferers actually get diagnosed and treated (UNAIDS, 2018). This paper explains about epidemiologic characteristics of HIV/AIDS cases in a decade from 2007 to 2016 in East Kalimantan.

II. RESULT

Table 1. Number of HIV/AIDS cases reported per year
(2007-2016)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
HIV	4	12	17	32	53	71	82	106	114	136	627
AIDS	29	33	62	65	82	86	72	104	152	194	879
HIV/AIDS	33	45	79	97	135	157	154	210	266	330	1506

Table 2. Number of HIV/AIDS cases reported by gender per year (2007-2016)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Male	23	25	46	50	66	69	82	108	177	227	873
Female	10	20	33	47	69	88	72	102	89	103	633

Table 3. Number of HIV/AIDS cases reported by age group per year (2007-2016)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
≤ 15 y	1	2	3	3	9	18	15	14	11	12	88
16-24 y	5	9	10	17	19	22	18	27	45	59	231
25-34 y	20	24	52	49	56	74	74	89	115	137	690
35-45 y	5	7	11	23	35	28	30	56	64	86	345
> 45 y	2	3	3	5	16	15	17	24	31	36	152

Table 4. Number of HIV/AIDS cases reported by occupation per year (2007-2016)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Government	1	0	0	5	4	2	5	5	11	20	53
Soldier/Police	0	0	0	0	3	0	0	0	0	17	20
Private	21	36	53	63	69	94	79	128	168	196	907
Housewife	7	6	17	20	46	49	57	58	57	79	396
Students	0	1	2	5	0	0	3	2	5	9	27
No Job	5	3	11	7	17	18	19	21	31	42	174

Table 5. Number of HIV/AIDS cases reported by risk factors per year (2007-2016)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Injection Drug User	10	8	12	11	13	4	17	13	12	11	111
Sex Worker	5	9	13	32	40	39	27	27	21	18	231
Customer Sex Worker	12	14	29	33	53	43	56	80	95	120	535
Homo sexual	0	0	0	1	2	0	7	14	38	70	132

Table 6. Number of HIV/AIDS cases reported by transmission per year (2007-2016)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Tattoo	0	0	2	1	0	0	1	1	3	0	8
Injection	10	8	12	11	13	4	17	13	12	11	111
Vaginal Sex	22	35	62	78	107	132	111	166	195	211	1119
Oral Sex	0	0	0	2	3	4	1	1	6	7	24
Anal Sex	0	0	0	1	2	0	7	14	38	69	131
Perinatal Trans mission	1	2	3	3	10	17	15	15	11	11	88
Blood Transfusion	0	0	0	1	0	0	2	0	1	1	5

III. DISCUSSION

HIV/AIDS has been a global health problem for more than a decade, yet no effective vaccines against HIV infection are available, for multiple reasons raised in detail elsewhere. As the HIV/AIDS problems continue in Indonesia, especially in East Kalimantan, unique challenges have been identified. In East Kalimantan, characteristics of the HIV/AIDS problems are consistent compared to different provinces within the same country.

In East Kalimantan, HIV/AIDS is transmitted predominantly through heterosexual contact. Epidemiologic characteristics of HIV/AIDS cases in a decade from 2007 to 2016 were analyzed using data from East Kalimantan Provincial Health Office, which included information about sex, age, occupation, and regional distribution.

From 2007 to 2016, 1506 cases of HIV/AIDS (57.97% among males and 42.03% among females) were reported with 627 (41.63%) HIV and 879 (58.37%) AIDS patients occurred in East Kalimantan. The prevalence of HIV/AIDS cases has grown steadily in this period, reported as 1.34 cases per 100 000 persons in 2007 to 7.16 cases per 100 000 persons in 2016, more than 5-fold increase.

Prevalence of HIV/AIDS varied markedly by age group: The majority (45.82%) of cases were in people aged 25-34 years; the lowest prevalence of HIV/AIDS cases was observed among those aged under 15 years (5.84%). Age distribution of HIV/AIDS prevalence in East Kalimantan suggests that adults with the greatest chance of exposure through unsafe sexual practices are at greatest risk of infection.

Our data suggest that persons of private personnel (60.23%) and housewives (22.44%) are the groups most often affected by HIV/AIDS. HIV/AIDS problems in East Kalimantan continue to be concentrated among female sex workers, injection drug users, and men who have sex with men. Before 2014, HIV/AIDS was spread mainly through heterosexual contact; however, homosexual transmission exceeded other routes of HIV/AIDS transmission and showed fastest growth rate after 2014 (from 6.54% in 2013 to 31.96% in 2016), although heterosexual transmission also exhibited a small increased trend (from 52.34% in 2013 to 54.79% in 2016). The study describes the characteristics of HIV/AIDS cases throughout East Kalimantan, which will be useful for developing new prevention strategies for HIV/AIDS transmission in East Kalimantan.

By 2014, annual new HIV infections had dropped to 2.0 million, down from 3.1 million in 2000, representing a decline of about 35%. The number of people living with HIV rose from an estimated 9.0 million in 1990 to 36.9 million in 2014, due in part to a substantial improvement in survival rates. Annual new infections fell to 2.1 million that year, down from 3.1 million in 2000, a decline of about 33%. Nevertheless, about 2 million people per year are still becoming infected with HIV, so the epidemic continues to spread. Indeed, because of improved survival rates, the HIV-positive population continues to grow, albeit at a slower rate.

Of course, the slower rate of increase is good news, as is the number of new infections averted over the past 15 years. It has been estimated that, without the global response that was mounted in 2000 and boosted in 2002, there would have been 6 million new infections in 2013 alone (WHO, 2015). Strategies addressing injection drug use and commercial sexual behaviors and improving the rate of condom use, as well as strengthening HIV monitoring and intervention among the high-risk population, are urgent tasks for health-related professionals.

REFERENCES

1. Desai M, Rudge JW, Adisasmito W, Mounier-Jack S, Coker R. 2010. Critical interactions between Global Fund-supported programmes and health systems: a case study in Indonesia. *Health Policy and Planning*. 25: i43–i47.
2. UNAIDS. 2018. Overview HIV/AIDS in Indonesia. From <http://www.unaids.org/en/regionscountries/countries/indonesia> accessed January 9th, 2018.
3. World Health Organization (WHO). 2015. Accelerating progress on HIV, tuberculosis, malaria, hepatitis and neglected tropical diseases. A new agenda for 2016 - 2030. World Health Organization. Geneva.
4. World Health Organization (WHO). 2017^a. HIV/AIDS Fact Sheet. From <http://www.who.int/mediacentre/factsheets/fs360/en/> accessed January 9th, 2018.
5. World Health Organization (WHO). 2017^b. HIV/AIDS Global Health Observatory Data. <http://www.who.int/gho/hiv/en/> accessed January 9th, 2018.
6. World Health Organization (WHO). 2017^c. HIV/AIDS Online Q&A. From <http://www.who.int/features/qa/71/en> accessed January 9th, 2018.

Correlation Between The Knowledge Of Prenat Mother About The Preeclampsia Risk And Delivery Process In Sidomulyo Health Center Year 2017

Dwi Riyan Ariestantia¹⁾, Yesica Eka Puri²⁾, Besse Lidia³⁾

¹⁾ *Akademi Kebidanan Mutiara Mahakam, Samarinda, Indonesia*
E-mail: dwiriyana@akbidmm.ac.id

²⁾ *Akademi Kebidanan Mutiara Mahakam, Samarinda, Indonesia*
E-mail: yesicaeka@akbidmm.ac.id

³⁾ *Akademi Kebidanan Mutiara Mahakam, Samarinda, Indonesia*
E-mail: besselidia@akbidmm.ac.id

Abstract. Preeclampsia is a disorder in pregnancy that significantly affects maternal mortality (MMR). AKI incidence in the world is very high, in 2016 more than 216 per 100,000 live births of women die every day due to complications of pregnancy and labor, recorded there are 800 women lost lives every day. Of the incidence rate above preeclampsia to be one cause of AKI with the incidence of 5-7% of the total AKI that occurred. This research used study case control design with data used that is secondary data in the form of medical record data of pregnant women with preeclampsia and without preeclampsia in the period of 1 January 2017-31 January 2017. The number of sample is 65 people. The data analysis used was univariate and bivariate by using chi square test. Univariate analysis showed factors related to risky delivery events were Knowledge, which result from bivariate calculation is: 69% with pregnant mother criterion with prediction of normal delivery process as much as 64% and the risk of having problems in the delivery process is 5%. While a small percentage of the knowledge level of pregnant women in this study is enough 11% with the criteria of pregnant women with a normal delivery process of 6% and abnormal at 5%. With result of calculation of SPSS with result p value is 0,001. Suggestions that can be given is for the relevant agencies to be able to increase promotive and preventive efforts by providing socialization of the factors that can be a risk of preeclampsia events so that cases of preeclampsia can be prevented early.

Keywords: Risk of Preeclampsia, Pregnancy

I. INTRODUCTION

Maternal mortality rate is one of the indicator which determines the prosperity of citizen in a particular country. The rate of maternal mortality is quite high. In 2016, more than 216 per 100.000 of delivery women passed away due to pregnancy complication and delivery process, there are 800 women die every day. According to the data from Ministry of Health, there are 305 mortality of maternal each 100.000 child birth, whereas infant mortality rate reach 22,23 per 1000 child birth.

Preeclampsia is a pregnancy hypertension disorder that affects morbidity very significantly around the world. This happens within 5-7% from all the pregnancies, and is the main reason of maternal mortality in the developing world. Preeclampsia is also the main factor in morbidity and perinatal mortality because it related to the premature delivery and growth limit inside uterus.

Puskesmas Sidomulyo is one of the health center in Samarinda. According to the medical record in Puskesmas Sidomulyo in 01-31 January 2017, there are plenty of mother checking up their pregnancy.

II. METHODS

This research is an observational analytic research with control cases research design. The population used in this research referred to inclusion and exclusion criteria. Inclusion criteria is a pregnant mothers who are checking their pregnancy in a range of 01-31 January

2017. Exclusion criteria is pregnant mothers who disagree to fill in the given questionnaire. There are 65 samples participated in this research by using random sampling method. The researcher using primary data obtained from the respondents which the reliability test have been conducted with result of 0,40 stated that the questionnaire is valid, prior to the research. Researcher also using secondary data obtained from KIA book (Mother and Child Health book) and medical record from Puskesmas of Sidomulyo. The data obtained by spreading questionnaire to all pregnant mother who agrees with inclusion criteria in Puskesmas of Sidomulyo, and data from summarized medical record of pregnant mothers and infants. Data analysis procedure used in this research is bivariate analysis with *chi square* test. The variable consists of two variables; variable dependent and variable

independent. Variable independent is the knowledge of pregnant mother about the risk of preeclampsia, whereas variable dependent is the delivery process..

III. RESEARCH RESULT

This

Variable	total	%
Age:		
<17 y.o.	8	12
17-20 y.o.	45	69
21-35 y.o.	9	14
>35 y.o.	3	5
Pendidikan :		
Uneducated	3	5
Elementary school	5	8
Junior high school	3	5
Senior high school	49	75
College	5	8
Occupation:		
House wife	48	74
Civil servant	1	2
Office workers	3	5
Entrepreneur	12	18
Paritas :		
Primigravida	29	45
Multigravida	36	54
Grandlemulti	-	-

the average age of mother in Puskesmas of Sidomulyo as from 01-31 January 2017 is in a range of 17-20 years old, or around 69%. As for the education, around 75% of respondents are senior high school alumni. Most of the occupation is house wife that takes 74% of them, with most parity multigravida for around 55%.

Tabel 2
Bivariate Analysis

Knowledge	Delivery process				Total	%	P Value
	Normal	%	abnormal	%			
Good	42	64	3	5	45	69	0,001
Fair	4	6	3	5	7	11	
Poor	3	5	10	15	13	20	
	49	76	16	25	65	100	

The average of knowledge in this research mostly good by the percentage around 69% with the pregnancy criteria and normal delivery process prediction around 64%. And there are risk possibilities of delivery process around 5%. Plenty of knowledge average refer to as fair is 11%. Normal delivery process around 6% and abnormal around 5% with *p-value* result is 0,001 by SPSS calculation.

IV. DISCUSSION

Preeclampsia is a pregnancy complication marked by hypertension and organ failure such as kidney failure

indicated by high protein-content in urine. Preeclampsia is also known as toxemia or pregnancy-induced hypertension. Based on the research result, from 65 respondents in Puskesmas of Sidomulyo based on 45 respondents (69%) with good knowledge, there are 42 respondents (64%) with good knowledge, 3 respondents (5%) respondents have a risk on delivery. 7 respondents (11%) respondent with fair knowledge. The distribution is: 4 respondents (6%) have no risk during delivery process and 3 respondents (5%) have a risk during delivery process. 13 pregnant mothers (20%) with poor knowledge and divided into 3 unrisk pregnant mothers (5%), 10 pregnant mothers with delivery process risk (15%). Calculations above obtained by cross table calculation between knowledge and risk during delivery process. It is explained that the higher knowledge about delivery disorder, the less the risk to be confronted. This is because the higher the health awareness of people, the more people taking care of their health. The same thing mentioned by Notoatmodjo (2009) that the more people understand about materials, the more people to apply those materials.

The average of good knowledge based from univariate analysis is believed coming from age, education, and experience (total parity), which is the respondents age ranged from 17-20 years old or about 69%, responden education mostly from senior high school alumni about 75%, and most parity is multigravida is 55%

V. CONCLUSIONS

1. 65 respondents conducting medical check-up in Puskesmas of Sidomulyo, 45 of them have good knowledge (69%)
2. 7 respondents have a fair knowledge (11%)
3. 13 respondents have a poor knowledge (20%)
4. 42 respondents have good knowledge and have no risk during delivery process (64%)
5. 4 respondents have a fair knowledge and have no risk during delivery process (6%)
6. 3 respondents have a poor knowledge and have no risk during delivery process (5%)
7. 3 respondents have a good knowledge but have a risk in delivery process (5%)
8. 3 respondents have a fair knowledge and have a risk of delivery process (5%)
9. 10 respondents have a poor knowledge but have a risk of delivery process (15%)
10. Kruskal walls test resulted significant values $0,001 < 0,05$ ($p < \alpha$). This proved that there are correlations between risk of preeclampsia and delivery process.

VI. SUGGESTION

Pregnancy is a natural process. During that process, many things could happen including pregnancy disorder that could affect delivery process, for example preeclampsia. Preeclampsia is a pregnancy disease and its presence is unpredictable. But if pregnant mother, whether have

preeclampsia or not, aware of their healthy life, they can prevent those all disorders from happening, starts from pain during pregnancy until threat of death. Researcher suggest to the health center of Puskesmas to increase its health service for the prgenant mother

REFERENCES

- [1] Marmi. Kesehatan Reproduksi. Yogyakarta : Pustaka Belajar ; 2014.
- [2] Purwoastuti, Endang. Dkk. Panduan Materi Kesehatan Reproduksi Dan Keluarga Berencana. Yogyakarta : Pustaka Baru Press ; 2014.
- [3] Kemenkes. Profil Kesehatan Indonesia : Jakarta ; 2012.
- [4] Dinas Kesehatan Jakarta. Profil Dinas kesehatan kota : Jakarta ; 2012.
- [5] Niven, Neil. Psikologi Kesehatan. EGC : Jakarta ; 2009. Tersedia dalm <http://www.depkes.go.id/resources/download/pusdatin/infodatin/infodatin-ibu.pdf>.
- [6] Gunarsa, Y. Psikologi untuk Membimbing. Jakarta : Balai Pustaka ; 2009.
- [7] Badan Pusat Statistik. Survey Demografi dan Kesehatan Indonesia 2010-2035. Jakarta : Badan Pusat Statistik ; 2016.
- [8] Sarwono. Sosiologi Kesehatan, Beberapa Konsep dan Aplikasinya. Yogyakarta : Penerbit Andi Offset ; 2013.
- [9] Giffin. Comprehensive stress management (8th Ed.) : New York, McGraw-Hill ; 2010.
- [10] Gibson, dkk. Organisasi, Perilaku, Struktur, Proses, Edisi Kelima, Jilid 3, Alih Bahasa Djarkasih, Erlangga. Jakarta ; 2010.
- [11] Sipatu, Linda nur. Pengaruh Motivasi, Lingkungan kerja dan stress kerja terhadap disiplin pegawai di Ruang Rawat Inap RSUD Undata : Palu ; 2013.
- [12] Searis. Manajemen Sumber Daya Manusia, Edisi 3. Yogyakarta : STIE YKPN ; 2010.
- [13] Walgito. Pengantar Psikologi Umum. Yogyakarta : Andi ; 2009.
- [14] Arikunto, S. Prosedur penelitian, Suatu Pendekatan Praktik, (Edisi Revisi). Jakarta : Rineka Cipta ; 2009.
- [15] Nursalam. Konsep dan Penerapan Metodologi Penelitian Ilmu Kesehatan. Salemba Medika : Jakarta ; 2011.
- [16] Moh. Nazier. Metode Penelitian, Cetakan ketujuh. Jakarta : Ghalia Indonesia ; 2009.
- [17] Yamin, dkk. Strutural Equation Modelling. Salembainfotek ; 2009.
- [18] Ghazali, Imam. Aplikasi Analisis Multivariate Dengan Program IBM SPSS 17, Cetakan Kelima, Semarang : Universitas Diponegoro ; 2011.
- [19] Arikunto, S. Manajemen Penelitian. Rineka Cipta : Jakarta 2009.
- [20] Riduwan. Skala Pengukuran Variabel-Variabel Penelitian cetakan ke delapan. Bandung : Alfabeta ; 2011.
- [21] Sugiyono. Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung : ALFABETA ; 2013.
- [22] Astono, SP dan Sabri, L. Statistik Kesehatan. Jakarta : Raja Grafindo ; 2011.
- [23] Heni, dkk. Dasar-Dasar Ilmu Kesehatan Masyarakat Dalam Kebidanan. Jakarta : Fitra Maya ; 2009.
- [24] Istanti, Yuni permatasari. faktor-faktor yang mempengaruhi peran keluarga dalam perawatan kliendalam skizofrenia di Unit rawat RS Grhasia DIY. Yogyakarta : Universitas Muhammadiyah Yogyakarta ; 2006.
- [25] Dedi dan Ratna. Pilar Dasar Ilmu Kesehatan Masyarakat. Yogyakarta : Nuha Medika ; 2013.

The Relationship between Hemoglobin Levels of Pregnant Mother with Hemoglobin Levels of Newborns in UPTD Puskesmas Tiron Banyakan District Kediri Regency East Java in 2017

Heni Purwanti¹⁾, Hestri Norhapifah²⁾, Sumiati³⁾

¹⁾ STIKES Wiyata Husada, Samarinda, Indonesia

E-mail: henipurwanti@stikeswhs.ac.id

Abstract. Anemia of pregnancy may interfere with his primary and secondary, the fetus is born with anemia and maternal labor with action due to get tired quickly. The study aims to determine the relationship between hemoglobin levels of pregnant women with hemoglobin levels of newborns in UPTD Puskesmas Tiron Banyakan District Kediri Regency, East Java in 2017. This study used cross sectional design by using logistic regression analysis. The results of the analysis obtained the value of OR was 5.97 (95% CI: 1.36 to 26.0) which means that mothers with less hemoglobin levels (anemia) 5.97 times more likely to give birth to babies with low hemoglobin levels (anemia) compared with women who are not anemic after being controlled by the variable a parity mother. Suggestions for community health centre in the area to improve the monitoring of pregnant women in consuming Fe tablet and counseling in particular about the dangers of anemia.

Keywords: hemoglobin levels of pregnant women, hemoglobin levels of newborns

I. INTRODUCTION

Changes in hemoglobin levels during pregnancy are caused by the changes in the circulatory system. Blood changes of pregnant women are influenced by several factors, namely, the increasing needs of blood circulation to meet the needs of development and growth of the fetus in the uterus, there is a direct relationship between the artery and veins in the circulation of retroplasenter and the influence of estrogen and progesterone hormone (Hidayati, 2011).

According to WHO (1992) anemia is a condition in which the hemoglobin level is lower than the normal limit to meet the physiologic needs (Wasnidar, 2007). Anemia is a term used in cases of decreased hemoglobin concentrations in the blood to levels (for pregnant women) under 11 gr%. Anemia is commonly occurred to pregnant women. Anemia in pregnancy is a condition of the mother with hemoglobin levels below 11 gr% in first and third trimester or hemoglobin levels less than 10.5 gr% in second trimester (Saifuddin, 2006).

Anemia in pregnancy is a condition of the mother with a hemoglobin level below 11 g% in first and third trimester or levels <10.5 g% in second trimester. Hypoxia due to anemia or anemic hypoxia may cause shock and maternal mortality or death during a very hard childbirth, although there is no bleeding. Also for the conception, anemia in pregnancy gives unfavorable effects, such as: mortality, perinatal death, prematurity, congenital defects, less iron reserves (Abdul Bari S., 2002).

Anemia during pregnancy in the first trimester will lead to: abortion, missed abortion and congenital abnormalities. Anemia in second trimester pregnancy causes preterm (premature) labor, antepartum bleeding, fetal growth

disturbance in uterus, intrauterine asphyxia, LBW, gestosis and infections, low IQ and even death. When in childbirth phase, anemia can cause both primary and secondary his disruption, the fetus is born with anemia and childbirth with action due to fatigue condition. In post partum, anemia can cause: uterine atony, retention of the placenta, wound heal, puerperalis febris and involution of uterine disorders.

Anemia in the mother can lead to fetal complications including abortion, intrauterine death, preterm labor, low birth weight, birth with anemia, disability, birth infection, perinatal death, and low birth intelligence. These complications further become one of the causes of increased incidence of morbidity and mortality in mothers and infants (Manuaba, 1998).

II. METHODS

Hemoglobin levels of pregnant women

Hemoglobin is a complex protein composed of globin protein and a non-protein compound called heme (Sadikin, 2002). Hemoglobin is a parameter used to establish the prevalence of anemia, Hb is an oxygen-carrying compound in red blood cells. Hemoglobin can be measured chemically and the amount of Hb / 100ml of blood can be used as an oxygen-carrying capacity index in the blood. The low hemoglobin content thus indicates anemia (Supariasa, 2001).

The function of hemoglobin in red blood cells is to bind oxygen (O₂). With the amount of oxygen that can be bound and carried by the blood, with the presence of Hb in red blood cells, the supply of oxygen in the body can be everywhere, even the most isolated parts of the body will be reached (Sadikin 2002).

There are several criteria for determining a person is anemic or not. The hemoglobin (Hb) blood of adult male is 13 gr%, adult woman is 12 gr%, preschool child is 11gr%. While anemia in pregnancy with hemoglobin levels below 11 gr% in trimester 1 and 3 or levels <10.5 gr% in trimester 2 (Saifuddin, 2002).

Anemia is a term used in the case of decreased concentrations of hemoglobin in the blood to the level (for pregnant women) under 11 gr%. Anemia is a fairly common in pregnant women. Anemia in pregnancy is a condition of the mother with hemoglobin levels below 11 gr% in trimester 1 and 3 or hemoglobin levels less than 10.5 gr% in trimester 2 (Saifuddin, 2006).

In Indonesia, most of these anemia are caused by iron deficiency (Fe) to be called iron deficiency anemia or iron nutritional anemia. Iron is one of the nutritional elements that is a component of Hb or red blood cells, hence it is called "Iron Nutrition Anemia".

Anemia in pregnant women is caused by several backgrounds, which are classified into iron deficiency anemia, megaloblastic anemia, hypoplastic anemia and haemolytic anemia.

Iron Deficiency anemia is anemia caused by iron deficiency in the blood. Its treatment is related to iron intake for pregnant women, not pregnant and in the recommended lactation is the provision of iron tablets. To confirm the diagnosis of iron deficiency anemia can be done with *anamnesa*. The results of anamnesa obtained complaints quickly tired, dizzy eyes and complaints of nausea vomiting in the early pregnant. On examination and supervision of Hb can be done by using sachli tool, which can be exposed at least 2 times during in the first and third trimester pregnancy

Megaloblastic anemia is an anemia caused by folic acid deficiency. The treatment is suggested to give folic acid 15 - 30 mg per day. Vitamin 3 x 1 tablet per day and sulfate ferosus 3 x 1 tablet per day. In severe cases and oral treatment indicating slow results so that blood transfusions are given.

Hipoplastic anemia is an anemia caused by bone marrow hypofunction which is forming the new red blood cells. For diagnostic, checks are required including complete blood count, external function examination and reticulation examination.

Hemolytic anemia is anemia caused by the destruction or breakdown of red blood cells which is faster than its manufacture. The main symptoms are anemia with abnormalities of blood scanned, fatigue, weakness, and symptoms of complications when there are abnormalities in vital organs.

Under normal circumstances, women need 12 mg a day, for pregnancy and breastfeeding required an additional 5 mg a day. If this need is not completed, the Fe in the storage will be used and will gradually be empty, and resulting in iron deficiency anemia. This is caused by poor absorption, chronic bleeding and an increased need. This condition requires additional Fe in drugs (Medical Pharmacology UI, 2005).

Signs of nutritional anemia begin with the depletion of iron deposits (ferritin) and increased iron absorption as illustrated by increased iron-binding capacity. At a later stage in the form of depletion of iron deposits, reduction of transferrin saturation, decreased protoporphyrin converted to heme and will be followed by decreased serum ferritin levels, finally anemia develops with the characteristic of low Hb (Gunatmaningsih, 2007).

The mechanisms of anemia are as follows: stage 1 body loses iron exceeds size, depletes the reserves in the body especially the bone; stage 2 reduction of iron reserves can not meet the need to form red blood cells; then stage 3 it begins to develop anemic levels of hemoglobin and haematokrit decreases; stage 4 bone marrow tries to replace iron deficiency by accelerating cell division and producing very small red blood cells (microcytic); stage 5 the worsening of iron deficiency and anemia hence arise symptoms due to worsening anemia. Based on the pathophysiology, pregnant women need additional iron to increase the number of red blood cells and form red blood cells, fetus and placenta. An increase in blood volume during pregnancy will increase the demand for iron, therefore, it is recommended that the mothers take 90 tablets of FE during labor or childbirth (Zulhaida Lubis, 2003).

Hemoglobin levels of newborns

Hemoglobin is a complex protein composed of globin protein and a non-protein compound called heme (Sadikin, 2002). Hemoglobin is a parameter used to establish the prevalence of anemia, Hb is an oxygen-carrying compound in red blood cells.

Hemoglobin can be measured chemically and the amount of Hb/100ml of blood can be used as an oxygen-carrying capacity index in the blood. The low hemoglobin content thus indicates anemia (Supariasa, 2001).

In infants aged one year, weight increased three times and the mass of hemoglobin in the circulation reached two times than at birth. Premature babies with very rapid growth, at the age of one year of body weight can reach six times and the mass of hemoglobin in the circulation reached three times than at birth (Raspati, Reniarti, Susanah, 2010).

Normal newborns, whose birth with ideal months, iron reserves sufficient to maintain iron sufficiency approximately for four months postpartum. In premature infants, total body iron is lower than in term infants, although the proportion of iron to body weight is the same. Premature babies, post-natal growth faster than babies born month-long, therefore if the food is not iron supplemented, they will suffer faster iron depletion than the term infant (Osiki 1993).

III. RESULT AND DISCUSSION

This research was a quantitative research. Cross sectional was used as the research design. It consisted of one independent variable that was pregnant woman Hb level and three dependent variables; Hb level of newborn baby, mother age and parity of mother.

Maternal or the pregnant women Hb level was the value of O2 binding agent present in red blood cells as measured by digital apparatus categorized to be anemia if the levels <11gr% and not anemia if the levels ≥ 11 gr%.

Newborn Hb rate was the value of O2 binding agent present in newborn red blood cells as measured by digital apparatus categorized to be anemia if levels <17gr% and not anemia if levels ≥ 17 g%.

The mother's age was the age of the mother at the time of childbirth expressed in the year and recorded on the patient's status card, which was divided into two categories: Age at risk at delivery if maternal age <20 years and age was not at risk if mother age 20-30 years. Maternal parity was the number of live or death deliveries that have been experienced by the mother and recorded on the patient's status card divided into two risky parity categories if childbirth > 1 and parity was not at risk if giving birth to the first child

This study used primary data which obtained from the results of Hb concentration examination of pregnant women, and examination of Hb levels of newborns. Measuring tool of this research used instrument available in health center in the form of digital Hb examination tool. The sample in this research was 46 respondents. The measurements of this sample used the sample size determination in health studies software. The minimum sample size was determined according to the hypothesis test formula of different mean of Lemeshow, S., et.al (1990) to pregnant mother in working area of UPTD of Tiron TM III Community Health Center based on sample criterion. The statistical test in this study was univariate, bivariate using chi square and multivariate test using logistic regression.

IV. RESULT AND DISCUSSION

This

TABLE 1

The Association of Maternal Hb Level with Infant Hb Level

Variable	Hb level of baby				RR	P-value	(CI95 %)
	Anemia		Not				
	N	%	N	%			
Hb level of mother	17	68,0	8	32,0	2,0	0,01	1,05-3,95
Anemia	7	33,3	14	66,7	4		
Normal							

Table 1 showed that there was a correlation of mother's Hb level to Hb level of newborn value p-value equal to 0,01. The results of the analysis obtained a PR score of 2.04 (95% CI: 1.05-3.95) which meant that the mother with anemia was 2.04 times more likely to have an infant with less Hb level compared with the mother with normal Hb level.

TABLE II

Results of Logistic Regression Analysis The Relationship between Hb Levels of Third Trimester Pregnant Women Toward Birth Weight

Variabel	Model I (coef 95% CI)	Model II (coef 95% CI)
Hb level of mother	4,25	5,97
Anemia	(1,23-14,6)	(1,36-26,0)
Normal		
Age of mother		8,57
< 20/>35 year		(1,81-40,4)
20-35 year		
R²	0,153	0,270

The final result of the statistical test of logistic regression showed that there were two variables that influence the incidence of low birth weight where the value of R2 is 0.270, which meant that both variables affected the low birth weight of the baby was 27.0% and the rest was influenced by the variable other.

The result of statistical test showed that maternal Hb level influence infant Hb level with p-value 0,00. The results of the analysis showed an OR of 5.97 (95% CI: 1.36-26.0) which means that mothers with less Hb (Anemia) were 5.97 times more likely to deliver babies with low Hb (anemia) compared with mothers who were not anemic after being controlled by maternal parity variables.

The external variable showed the relationship with the occurrence of infant Hb level was maternal parity where the statistical test result showed that the parity of the mother influenced the infant's birth weight with p-value 0,00. The results of the analysis obtained an OR value of 8.57 (95% CI: 1.81-40.4) which meant that mothers with parity > 1 are 8.57 times more likely to have babies with low Hb (anemia) mother who was parity 1 after being controlled by variable Hb level of mother.

Discussions

Mother's Hb level in this research at most in category of anemia that was counted 25 respondents or 54,3%. statistical analysis showed that mothers with anemia were 2.29 times more likely to have low infant Hb (anemia) after being controlled by nutritional status and maternal age.

Anemia in pregnancy is anemia due to iron deficiency and is a type of anemia that treatment is relatively easy, even cheap (Manuaba, 2013). Theory of Cunningham (2010) states Anemia is a condition of the mother with hemoglobin levels below 11 gr% in the first and third trimesters or smaller levels 10.5 gr% in trimester II Anemia can also affect nutritional needs during pregnancy, which can cause various factors such as influence toward fetal growth, bleeding, and puerperal problems.

The results of this study showed that other factors associated with infant Hb levels were parity. The results of this study found that there was no relationship between parity with baby Hb level. This is because the majority of respondents were in the category of parity one time in giving birth.

Parity is the status of a woman with respect to the number of children she has ever given birth. Parity is a woman who has given birth to a viable baby. Usually women with parity greater than 5 times are likely to deliver low birth weight infants (BBLR) as well as infants with low Hb levels (Puji E, et al. 2007).

The results of this study supported the theory of Wiknjosastro (2007) The first mother of pregnancy was a very new thing so motivated in checking pregnancy health of health than the first pregnancy then the condition of the mother was still in a very good condition for childbirth. However, if the mother had given birth > of 1 then the risk of mother to suffer from various disease would be greater one of them risk of anemia, where anemia was one factor influencing fetal growth.

The results of this study were consistent with those presented by Manuaba (2007) The danger of anemia in pregnancy has an adverse effect on the mother in pregnancy, childbirth, puerperium and the effects of fetal outcome and development, due to anemia in the fetus, including abortion, intrauterine death, preterm delivery high, low birth weight, birth with anemia, congenital defects occur, infants are susceptible to infection until perinatal death and low intelligence

V. CONCLUSIONS

There was a relationship of pregnant women Hb levels with Hb levels of newborns at UPTD Puskesmas Tiron Kecamatan Banyakan Kediri East Java where the results of statistical tests showed the value of p-value 0.00. The results of the analysis showed an OR of 5.97 (95% CI: 1.36-26.0) which meant that mothers with less Hb (Anemia) are 5.97 times more likely to deliver babies with low Hb (anemia) compared with mothers who were not anemic after being controlled by maternal parity variables.

External variable influencing pregnant woman Hb level with Hb rate of newborn in UPTD Puskesmas Tiron Kecamatan Banyakan Kediri Regency East Java was parity of mother. Suggestions for local health centers to improve monitoring of pregnant women in taking Fe tablets and counseling especially about the dangers of anemia.

ACKNOWLEDGMENT

Praise and thanks to Allah SWT for the blessings and grace given so that the writing of this journal can be completed. We would like to thank you for your continued support. The authors wish to thank parents, husbands and children, and friends who have contributed either directly or indirectly to the completion of this research and journal

REFERENCES

- [1] S. M. Metev and V. P. Veiko, *Laser Assisted Microtechnology*, 2nd ed., R. M. Osgood, Jr., Ed. Berlin, Germany: Springer-Verlag, 1998.
- [2] Arikunto, S. (2006) *Prosedur Penelitian Suatu Pendekatan Praktek*, Ed. Revisi Jakarta: Rineka Cipta
- [3] Bina Kesehatan Ibu dan Bayi Prop Jatim. (2012) *Pentingnya Menjalankan Aktivitas Fisik Bagi Ibu Hamil*. Diakses tanggal 28/02/2013 pukul 22:10 WIB http://www.dinkespropjatim.go.id/prinsip3_ibu_hamil.php
- [4] Brayshaw, E. (2008) *Senam Hamil & Nifas*. Jakarta: EGC
- [5] Corwin, E.J. (2009) *Buku Saku Patofisiologi*. Jakarta: EGC
- [6] Cunningham, F. G, et al. (2011). *Obstetri Williams Edisi 21*. Jakarta: EGC.
- [7] Hidayat, A.A.A. (2009) *Ketrampilan Dasar Praktik Klinik Untuk Kebidanan*. Jakarta: Salemba Medika
- [8] Hidayat, A.A.A. (2010) *Metode Penelitian Kebidanan dan Teknik Analisa Data*. Jakarta: Salemba Medika
- [9] Huliana, M. (2007) *Panduan Menjalani Kehamilan Sehat*. Jakarta: Pustaka Swara
- [10] Indivara, N. (2009) *The Mom's Secret Rahasia Melahirkan Selamat & Tidak Sakit*. Yogyakarta: Pustaka Anggrek
- [11] Jannah, N. (2012) *Buku Asuhan Kebidanan Kehamilan*. Yogyakarta: Andi
- [12] Judha, dkk. (2012) *Teori Pengukuran Nyeri & Nyeri Persalinan*. Yogyakarta: Muha Medika
- [13] Kementerian Kesehatan Republik Indonesia. (2012) *Buku Kesehatan Ibu Dan Anak*. Jakarta: Kementerian Kesehatan
- [14] Kozier, Barbara. (2009) *Buku ajar praktik keperawatan klinis KOZIER & ERBED.5*. Jakarta: EGC
- [15] Kurniasih, dkk. (2005) *Bugar Saat Hamil Sehat Kala Nifas Langsing Usai Bersalin*. Gramedia
- [16] Kusmiyati, dkk. (2009) *Perawatan Ibu Hamil*. Yogyakarta: Fitramaya
- [17] Leveno, Kenneth J. (2009) *Obstetri Williams*. Jakarta: EGC
- [18] Blade (2011) *Kehamilan minggu demi Minggu*. Jakarta: Erlangga
- [19] Mander, R. (2004) *Nyeri Persalinan*. Jakarta: EGC
- [20] Medforth, et al. (2012) *Kebidanan Oxford*. Jakarta: EGC
- [21] Michael F, Roizen. (2010) *Having a Baby: Panduan Modern Kehamilan Yang Bahagia, Sehat, Dan Cerdas*. Bandung: Qanita
- [22] Mufdhilah. (2009) *Panduan Asuhan Kebidanan Ibu Hamil*. Yogyakarta: Nuha Medika
- [23] Muhimah, N. (2010) *Panduan Lengkap Senam Sehat Khusus Ibu Hamil*. Yogyakarta: POWER BOOKS
- [24] Notoatmodjo, S. (2010) *Metodologi Penelitian Kesehatan*. Jakarta: Rineka Cipta
- [25] Nurdiansyah, N. (2011) *Buku Pintar Ibu & Bayi*. Jakarta: Bukune
- [26] Nursalam. (2011) *Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan: Pedoman Skripsi, Tesis dan Instrumen Penelitian Keperawatan*. Jakarta: Salemba Medika
- [27] Purwanto, T.P. (2012) *Masalah Kesehatan Umum Pada Wanita Hamil*. Diakses tanggal 28/02/2013 pukul 21:09 WIB <<http://edisicetak.joglosemar.co/berita/masalah-kesehatan-umum-pada-wanita-hamil-65544.html>>
- [28] Prawirihardjo, S. (2008) *Ilmu Kebidanan*. Jakarta: PT Bina Pustaka
- [29] Saminem, Hajjah. (2009) *Kehamilan Normal*. Jakarta: EGC
- [30] Setiawan, A & Saryono. (2011) *Metode Penelitian Kebidanan D III, D IV, S1, dan S2*. Yogyakarta: Nuha Medika
- [31] Sindhu, Pujiastuti. (2009) *Yoga Untuk Kehamilan Sehat, Bahagia, Dan Penuh Makna*. Bandung: Qanita
- [32] Sulistiana, dkk. (2011) *Pengaruh Senam Hamil Terhadap Penurunan Nyeri Punggung Bawah Pada Ibu Hamil di BPS Ny. Widya Suroso Kecamatan Turi Lamongan*. Surya: Vol.02. No IX
- [33] Sugiyono. (2010) *Statistika Untuk Penelitian*. Bandung: Alfabeta
- [34] Sujiono & Yuliani. (2004) *Seri Mengembangkan Potensi Bawaan Anak Persiapan Dan Saat Kehamilan*. Jakarta: Elex Media Komputindo
- [35] Wahyuningsih, M. (2011) *Agar Tak Tersiksa Sakit Punggung Saat Hamil*. Diakses tanggal 04/02/2013 pukul 13:29 WIB <<http://health.detik.com/read/2011/06/11/140335/1658215/764/>>
- [36] Widayastuti, dkk. (2011) *Hubungan Tingkat Kepatuhan Ibu Hamil Trimester III Yang Menjalankan Program Senam Hamil Dengan Lama Persalinan Di RS Panti Wilasa Citarum Semarang*. Jurnal Ilmu Keperawatan Dan Kebidanan: Vol 1. No 1
- [37] Yuliarti, N. (2010) *Panduan Lengkap Olahraga Bagi Wanita Hamil Dan Menyusui*. Yogyakarta: ANDI

Correlation of Nurse Knowledge with the Implementation of Risk Fall Identification (Morse Fall Scale) in Inpatient Room of the Dayaku Raja's Regional Public Hospital Kota Bangun

Rusdi ¹⁾, Edy Mulyono ²⁾, Ida Hayati ³⁾

¹⁾ Study Program of Nursing, Wiyata Husada Institute of Health Science, Samarinda, Indonesia
E-mail: rusdi.pskwhs17@gmail.com

²⁾ Study Program of Nursing, Wiyata Husada Institute of Health Science, Samarinda, Indonesia
E-mail: edward_abil@yahoo.com

³⁾ Study Program of Nursing, Wiyata Husada Institute of Health Science, Samarinda, Indonesia
E-mail: -

Abstract. One of the prevention effort of falling risk is through the assessment of Morse Fall Scale (MFS), and this can be done well if nurse has good knowledge and execution. This research aims to know the correlation of nurse knowledge with the implementation of Morse Fall Scale Identification at Inpatient Room of Dayaku Raja's Regional Public Hospital Kota Bangun. This research method uses descriptive correlation design with cross sectional study approach. The sampling technique was done with non probability sampling by Total Sampling with sample amounted to 34 people. The result of the research using Fisher's Exact Test in obtaining probability value (p) of $0.001 < \alpha (0.05)$. The conclusion of the research results shows that there is a correlation of nurse knowledge with the implementation of risk identification falls in the Inpatient Room of Dayaku Raja's Regional Public Hospital Kota Bangun. It is suggested to the hospital to improve the implementation of patient safety by involving all executor nurses in identifying the risk of falls, and improving the quality of health services of the hospital.

Keywords: nurse knowledge, implementation of risk fall identification

I. INTRODUCTION

Patient safety is a major issue in service health because patient safety is a system of care for maintain patient safety and patient comfort. Such systems include risk assessment, identification and management of matters relating to patient risk, incident reporting and analysis, and follow-up as well implementation of solutions to minimize unwanted risk. (Kilateng, 2015).

World Health Organization (WHO), 2014 patient safety is a health problema serious global society. In Europe experienced, patients at risk 83.5% infection and evidence of medical error showed 50-72.3%. Data Patient safety about in Indonesia is still rare, however on the other hand there is an increasing accusation of "mal practice" that is not necessarily in accordance with the final verification. Incidence of breach of patient safety 28.3% done by nurse (Lombogia, 2016).

New paradigm in KARS accreditation system version 2012, directing all hospital service activities to be able provide services that meet quality standards and taste assurance safe and protection against the impact of services provided within the framework of fulfilling the community's rights to quality services and safe (Kepmenkes, 2012)

Patient identification is a very basic thing to be done by a nurse, identification of the patient can properly avoid the

occurrence of medical errors or events that are not It is hoped that the patient can be self-sufficient (Octafia, 2015).

In reducing the risk of injury due to fall (Fall Risk) nurses can use Morse Fall Scale where Morse Fall Scale aims to provide adult patient's salvation at hospitals, prevent the occurrence of patients falling in the Hospital, The prevention intention of the patient falls among others the assessment of MFS, putting on the identification bracelet the risk of falling yellow on the patient's wrist, the falling prevention mark (triangular label yellow / red) dipapan bed, write on whiteboard on nurse station, set the height of the bed in accordance with the patient's prevention procedure falls, ensuring the safety fence bed in a state of attachment, on the patient gelisa using a restrain or an Apol suit (Kilateng, 2015).

Knowledge is the result of knowing through sensing a particular object and very important to the formation of action a person and knowledge can change behavior in that direction desired ". Sensing occurs through the senses of the human senses sight, hearing, smell, taste, and touch. But some great human knowledge gained through the eyes and ears. What is has been and is being experienced by someone will shape and influence appreciation of a person against the stimulus, which will then form positive or negative attitude. Learning needed someone to achieve level of self-maturity (Notoatmodjo, 2010).

Regional Public Hospital Dayaku Raja Kota Bangun It self about the incidence is still rare. Report the patient safety incidents I got from the Regional Public Hospital Dayaku Raja Kota Bangunc incidents amounts to 2 with the incident in the patient fall amounted to 1, blood transfusion error amounted to 1 and incident totaled 1 with the incidence of almost falling with the number of patient visits hospitalized from October to November of 2016 numbered 282 who were hospitalized.

II. METHODS

This type of research uses descriptive correlation research design with cross sectional approach is a study for studying the dynamics of correlation between risk factors with effects, by means of approach, observation, or data collection at once on one moment.

The sample in this study is all the nurses who are in the hospital room Regional Public Hospital Dayaku Raja Kota Bangun who already have the program patient safety, amounting to 34 respondents.

The research instrument uses observation sheet is a checklist (✓) that the researcher must fill in. The observation sheet has an assessment with a choice of answers: done or not "Yes, No" for the implementation of risk identification falling using Standard Operating Procedures Morse Fall Scale (MFS) Hospital. For the answer yes given the score (1) and for answer not scored (0). And instrument knowledge of nurses on the implementation of identification risk falls. This questionnaire uses the guttman scale. True False. For correct answer given the score (1) and for wrong answer given the score (0).

Tabel 1. Morse Fall Scale Instruments

	Morse Score	Action
Level of risk		
Low risk	0 - 24	No Action
Medium risk	25 - 44	Standard Prevention
High risk	≥ 45	Prevention of Falling Risk High

The result of validity test with r result < r table: 0,374 with 26 question and result of reliability test at questionnaire of knowledge level got value 0.83. The result of bivariate analysis obtained in this research is independent variable of nurse knowledge and dependent variable the implementation of risk identification falls after a statistical test Fisher's Exact Test.

III. RESULT AND DISCUSSION

This section describes the result of the study and its discussion. The section consists of nurse knowledge with the implementation of risk fall identification.

A. Nurse Knowledge With Implementation of Identification of Risk of Fall

Table 2. Distribution of respondents based on the knowledge of nurses.

Knowledge	f	%
Good	21	61.8
Not Good	13	38.2

Explained that 34 respondents are linked with nurse knowledge with the implementation of risk identification fell in get good knowledge 1.6 times as much as 21 people (61.8%) of not good knowledge.

B. Implementation Of Risk Fall Identification

Table 3. Distribution of respondents Implementation Of Risk Fall Identification.

Implementation	f	%
Good	18	52.9
Not Good	16	47.1

The implementation of risk identification falls well there are more 2 respondents there are 18 people (52.9%) of the implementation is less good.

C. Correlation Of Nurse Knowledge With The Implementation Of Risk Fall Identification

Table 4. Nursing knowledge relation with identification implementation

Knowledge	Implementation						ρ
	Good		Not Good		Total		
	f	%	f	%	f	%	
Good	16	88.9	5	31.2	21	61.8	*0.001
Not Good	2	11.1	11	68.8	13	38.2	

*Fisher's Exact Test analysis $p < \alpha = 0.001$

D. Discussion

Knowledge a good nurse will affect the level of nurse compliance thereby reducing the risk of falling in the patient. Risk assessment falls this has been practicable since the patient signed up, that is with using falling scales. Experience, knowledge and resources information is the thing that affects the carefulness of nurses in doing risk assessment fell. Sources of information obtained here in trainings, seminars or workshops on risk falling patients. In training nurses are equipped with knowledge, skills and Patient Safety related experience (Oktoviani, 2015).

According to the researcher knowledge is the basis in every implementation of nursing actions including identification

actions fall risk which is an indication that the implementation of the identification the risk of falling in Regional Public Hospital Dayaku Raja Kota Bangun has a strong foundation theoretically expected respondents have the ability to analyze, understand, and able give a rational explanation of each provide care nursing to patients and families, especially ones related to the implementation of fall risk identification.

According to researchers understanding of respondents about the implementation respondents to patients with falling risk have been good however should be increased, in order to prevent improvement in patients risk falls.

Patient implementation is very basic which should be done by a nurse, patient identification can properly avoid unexpected events that may affect the patient's self (Oktoviana, 2015).

Implementation of risk identification falls by using Morse Fall Scale (MFS) hospital room General Area Dayaku Raja Kota Bangun done by the head room and nurse executing at the time of initial admission room and conducted a review once every 3 days patient safety team in inpatient and after patient want to go home will be done re-review again. The results of this study are also reinforced by research conducted by Budiono et al (2014), who are excited about the implementation of the program management of patients at risk of falling in the hospital. Results his research published mostly well executed the falling patient management program kinds: screening, mounting of identity bracelet falling risk, educating patients and families about the use of educational leaflets, falling patient management, incident reporting.

The results used Fisher's Exact Test with value (α) 0.005 obtained significant results ($p = 0.001$) which means p value < 0.005 . It can be interpreted that H_0 is rejected and H_a accepted ie there is a relationship between nurse knowledge with implementation risk identification falls.

The results of this study were reinforced by Oktaviani (2015), linked knowledge of nurses with nurse compliance in the implementation Standard Operating Procedures for falling risk prevention have meaningful relationship. From the results of the researchers' analysis it is due the majority of nurses at Panti Waluyo Hospital Surakarta already doing risk assessment falling using Morse scale. Nurse already have a good knowledge about the risk of falling in risk assessment falls on the Morse scale, but on the other hand still got nurses still have knowledge that less. So the implementation of risk assessment falls using Morse scale still has some points that are not implemented.

The results of this study are reinforced by (Bawelle, 2013) based observations made by researchers, note that the picture above influenced by Nursing compliance regarding Operational Standards Procedure (SOP) that has been given, leadership role (head Hospital nurses) who continuously monitor and evaluate the action which every nurse performs, and good communication the head of the room with nurses the implementation also between nurses implementation throughout the inpatient room. So from the results that obtained can be concluded the higher the better knowledge in the implementation of patient safety.

Fall is a cause event conscious subjects become unintentional on the ground. And does not include fall due to hard knocks, loss of consciousness, or seizures. The fall incident is from a specific cause the types and consequences differ from those in the circumstances conscious experiencing fall. (Kilateng, 2015).

Knowledge is the result of human sensing, or the result of knowing a person to the object through his or her senses (eyes, nose, ears, etc.) But most of it human knowledge is obtained through the eyes and ears. What has and being experienced by a person will shape and influence appreciation of a person against the stimulus, which then will form a positive and negative attitude. Learning needed someone to reach the level of self-maturity. Learning process can be done by nurses while on duty. This is supported by Diploma III amounted to 29 people with percentage (85.3%). Through education high nursing (minimum Diploma 3) expected nursing nurse can perform nursing care professionally

The results of research obtained by researchers with observations on implementation of risk identification falls using the Morse Fall Scale scale (MFS) obtained 16 respondents with good knowledge with implementation of risk identification falls Morse Fall Scale (MFS) well, obtained 3 respondents with less good knowledge with implementation of risk identification falls Morse Fall Scale (MFS) well, obtained 6 respondents good knowledge in the implementation identification of the risk of falling Morse Fall Scale (MFS) is poor, and obtained 9 respondents with less good knowledge with the implementation of risk identification falls Morse Fall Scale (MFS) is not good

IV. CONCLUSIONS

The higher the better knowledge in the implementation of patient safety. Increased knowledge and skills of human resources The ones in the hospital included are expected to be located socialization to all nurses related to the assessment patients with morse and way charging using the morse patient assessment form Fall Scale and determine correctly.

REFERENCES

- [1] [Bawelle. (2013). *Hubungan pengetahuan dan sikap perawat dengan pelaksanaan keselamatan pasien (patient safety) di ruang rawat inap RSUD Liun Kendage Tahuna Manado*. ejournal keperawatan (e-Kp) Volume1.
- [2] Budiono, S. (2014). *Pelaksanaan Program Manajemen Pasien dengan Risiko Jatuh di Rumah Sakit*. Jurnal Kedokteran Brawijaya, Vol. 28, Suplemen No. 1, 2014.
- [3] Kepmenkes. (2012). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 012 Tentang Akreditasi Rumah Sakit*
- [4] Kilateng, E. (2015). *Hubungan pengetahuan perawat tentang patient safety dengan tindakan pencegahan risiko jatuh di ruang interna RSUD Maria Walanda Maramis Airmadidi*. E-Jurnal Sariputra, Vol. 2(2).
- [5] Lombogia, A. (2016). *Hubungan perilaku dengan kemampuan perawat dalam melaksanakan keselamatan pasien (patient safety) di ruang akut instalasi gawat darurat*

Rsup prof. Dr. R. D. Kandou manado. E journal Keperawatan (e-Kp) Volume 4 Nomor 2..

[6] Notoatmodjo, S. (2010). *Promosi Kesehatan dan Ilmu Prilaku*. Jakarta: Rineka Cipta.

Oktaviani, H. (2015). *Hubungan pengetahuan dengan kepatuhan perawat dalam pelaksanaan standar prosedur operasional pencegahan resiko jatuh pasien dirumah sakit panti Waluyo Surakarta*. Jurnal kesehatan Stikes Kusuma Husada.

The Influences of CD4 Count Reduction on Opportunistic infections in New HIV patients at Hospital of Abdul Wahab Sjahranie Samarinda-Indonesia

Silvia Anitasari¹⁾, Irma Yunita²⁾, Vera Madonna L Toruan³⁾

¹⁾ *Laboratorium of Microbiology, Faculty of Medicine, Mulawarman University, Samarinda, Indonesia*
E-mail: carabelli74@yahoo.com

²⁾ *Medical Program, Faculty of Medicine, Mulawarman University, Samarinda, Indonesia*
E-mail: -

²⁾ *Laboratorium of Parasitology, Faculty of Medicine, Mulawarman University, Samarinda, Indonesia*
E-mail: -

Abstract. HIV incidence increases in Indonesia. The new cases always are found every month, especially in Samarinda. The immune system which makes regulator on HIV is CD4 lymphocyte cells. The CD4 lymphocyte cells can destruct due to HIV infection, therefore the number of CD4 will decrease. Decreasing CD4 number leads to opportunistic infection, such as candidiasis, tuberculosis. This research was an observational analytical research with cross sectional method and retrospective design. Data were taken from medical records of new HIV patients at RSUD Abdul Wahab Sjahranie Samarinda in 2016. The analysis showed that the fifty-three (82%) samples obtained <200 cells/mm³ of CD4 cells and the thirteen (20%) samples obtained >200 cell/mm³ CD4 cells. The forty-five samples (68%) were found opportunistic infections and 32% did not have opportunistic infection. The statistical analysis by Fisher, there was correlation between decreased of the number of CD4 cells with incidence of opportunistic infection in HIV patient in RSUD Abdul Wahab Sjahranie Samarinda. The decrease of CD4 count caused opportunistic infections in HIV patients.

Keywords: decreased, CD4 cells, opportunistic infections

I. INTRODUCTION

HIV-AIDS is problem in Indonesia. Prevalence always increases every year. Based on data from Ministry of Health of Indonesia Republic, the number of HIV people who were infected by this virus, between January to March about 7.146 persons and 305 people were infected by this virus, which developed to AIDS (Health Ministry of Indonesia Republic, 2017).

Samarinda, the capital of East Kalimantan was the city with high prevalence of AIDS. Approximately 832 HIV cases and 34 AIDS cases in 2015. Many cases in Samarinda will be found in Abdul Wahab Sjahranie Hospital and there were 133 patients who were treated in this hospital (Department of Health East Kalimantan Province, 2016).

Human immunodeficiency virus (HIV) causes progressive impairment of the human immune system leading to increased susceptibility the fatal conditions knows as acquired immunodeficiency syndrome (AIDS). The primary target cell for HIV is immune cells bearing CD4 marker at their surface. With the infection of HIV, there will be gradual decrease of human immune cells bearing CD4 T cells leading to development of wide varieties of opportunistic infections (OIs) (Agarwal, et al 2015; Dhungana, et al, 2007).

AIDS related mortality and morbidity, which is significantly higher in number as compared to other diseases, is actually opportunistic infections (OIs) rather than HIV itself. Therefore, success of any HIV/AIDS care and management project relies on effective diagnosis and treatment of opportunistic infections (Agarwal et al, 2015; Sanchez et al, 2005).

The risk and severity of OIs increase due to CD4 are decreased, resulting mortality to the patients. Therefore, CD4 count is an important parameter to initiate OIs prophylaxis. The opportunistic appearances of HIV-AIDS have many variants in different countries. In United States of America, many cases of OIs were Pneumocystis carinii pneumonia and Kaposi Sarcoma in 2009. However in India the most cases of OIs were Tuberculosis and Oral Candidiasis in the same year (WHO, 2007).

How about Indonesia? The research by Lubis (2012) found that Tuberculosis was the highest cases (45,3%) and then Toxoplasmosis (22,8%), candidiasis, and Diarrhea. However, the research by Astuti (2010) at Abdul Wahab Sjahranie Hospital showed different result. The research of Astuti founded that the most OIs cases were Chronic Diarrhea (34,07%) and the Oral Candidiasis (22,22%) and Tuberculosis (18,52%).

A New HIV patients more vulnerable have OA due to decreasing of their immunity system sharply and in laboratory finding showed the number of CD4 count <200 cells/mm³ while the research by Widiyanti and Sandy (2016) showed OIs cases at the number of CD4 count >200 cells/mm³. The result consisted 38 patients (40%) had the number of CD4 count <200 cells/mm³, 34 patients (36%) had CD4 count between 201-349, 8 patients (9%) had between 350-499 cells/mm³, and 14 patients (15%) had more than 500 cells/mm³ (Ghimire et al, 2009; Sanchez, 2005).

Therefore, this study is conducted to explore the relationship between CD4 count and different types of opportunistic infections on new HIV patients in Abdul Wahab Sjahranie Hospital. Furthermore, the result will be helpful in the prognosis of different OIs in HIV patients.

II. METHODS

This research was carried out in Abdul Wahab Sjahranie Hospital between May and June 2016. The research was approval by Faculty of Medicine Ethic Committee, Samarinda-Indonesia. The data were collected from medical records with purposive sampling technique. Data are expressed as frequency and percentage. Statistical comparisons between groups were performed with fisher test according to SPSS 23.00 software, with significant being $p < 0.05$ or less.

III. RESULT AND DISCUSSION

Table 1. Socio-Demographic Characteristic of the New HIV Patients

Characteristic	Total Number	Percentage (%)
Age Group (Years)		
20-29	18	27
30-39	27	41
40-49	15	23
>50	6	9
Gender		
Male	41	62
Female	25	38
Education		
Illiterate	2	3
Elementary	11	16
Junior High School	9	14
High School	33	50
University	9	14
No Information	2	3

Occupation		
Government Employee	1	1,5
Private Employee	26	39
Entrepreneur	1	1,5
Farmer	2	3
Retired	1	1,5
Unemployed	3	4,5
No Information	7	11

In the table 1 showed among 66 HIV's samples, 41(62%) were males and 25 (28%) were females. The age group 30-39 years was predominant (41%) followed by 20-29 years (27%). Most of them were graduation from high school (50%) and they worked as private employee (39%).

Table 2. Distribution of Opportunistic Infection

No	Opportunistic Infection (OIs)	Total Number	Percentage (%)
1	Tuberculosis	20	34
2	Candidiasis	17	29
3	Gastroenteritis	7	12
4	Pneumonia	8	14
5	Toxoplasma	3	5
6	Hepatitis	1	2
7	Urinary Bladder Infection	1	2
8	Meningitis	1	2
	Total	58	100

Tuberculosis was found to be predominant OIs whose prevalence was found to be 34% followed by candidiasis 29%, pneumonia (14%), gastroenteritis (12%), toxoplasma (5%), hepatitis, urinary bladder infection and meningitis, which had the same percentage 2% as shown in table-2.

Table 3. Distribution of total count of CD4 related to opportunistic infections (OIs)

OIs	CD4 Count		
	<50	51-200	>200
TB	16	2	2
Candidiasis	15	1	1
Gastroenteritis	5	2	0
Pneumonia	6	1	1
Toxoplasma	3	0	0
Encephalitis			
Hepatitis	0	0	1
Meningitis	1	0	0
Urinary Bladder Infection	1	0	0
Total	47	6	5

Tuberculosis was predominant OIs in the level of CD4 <50 or >200. However, candidiasis was seen dominantly in level of CD4 <50.

Table 4. Fisher statistical analysis about the relation between CD4 count and opportunistic infections

Opportunistic Infection (OIs)		Yes		No		Total number		Value of P	PR (95% CI)
		N	%	n	%	N	%		
CD 4 Count	<200 cells/mm ³							0,002	2,514 (1,098-5,756)
	>200 cells/mm ³	41	62	12	18	53	80		
	>200 cells/mm ³	4	7	9	13	13	20		

Based on Fisher statistical analysis showed significant relationship was established between low CD4 count and the opportunistic infections in new HIV patients (value of P 0,002) with ratio of prevalence was 2,514

IV. DISCUSSION

A Male were infected more than female and the age group 30-39 was predominant to HIV infection due to the male and this age group exhibited the equal chance of acquiring HIV infection by sexual activity as well as sharing injection (Djoerban & Djauzi, 2014). Men usually engage unsafe sexual intercourse, homosexual relationships, and use drug more than women. Therefore, men have risk more than women to be infected by HIV viruses (WHO, 2007).

The opportunistic infection is an infection caused by harmful infections pathogens, such as bacteria, viruses, fungi, parasites, which usually do not cause disease in a healthy people however, if they attack human immune system can make opportunistic infection in a wide range of disease, from minor ailments like chronic skin itching to severe diseases such as pneumonia candidiasis, and tuberculosis (Bhuvana et al, 2015, Brooks et al, 2004).

The onset of opportunistic infections will be different for each person living with HIV, and will depend on many factors such as nutritional status, individual count of immunity. Hence, in some cases may progress to AIDS rapidly, while in others it may take longer for serious opportunistic infections to arise (Bhuvana et al, 2015; Dhungana et al, 2007).

Human immune system which makes role to immune's regulation in HIV infection is CD4cells. The CD4 cells help to active other white blood cells, in the defence of the body against invasion by pathogens. A reduced number of CD4 cells results in an impaired immune system. The lower the number of CD4 cells, the more impaired the immune system will be. Remember that HIV weakens the immune system precisely by infecting and ultimately destroying CD4 cells

(Agarwal et al, 2015; Bhuvana et al, 2015; Sanchez et al, 2005).

However, the risk of acquiring opportunistic infections increases proportionally to the decline in CD4 counts observed as the disease progresses. In other words, if the CD4 count falls below a certain limit, the immune system is unable to cope with invading pathogens and opportunistic infections become more frequent (Agarwal, 2015)

A person who living with HIV has decreased the CD4 count below 450 cells/mm³ will start to find an opportunistic infection. However the CD4 count has decreased below 200cells/mm³, the person must have opportunistic infections. It is a stage that someone living with HIV is considered to have AIDS (Singh et al, 2003)

In this research tuberculosis was predominant opportunistic infection. In the CD4 count <50 and >200 showed OIs dominant was tuberculosis and then candidiasis which showed in the CD4 count <50. The result supported the statement that a person who living with HIV has decrease the CD4 count below 450 cells/mm³ will start to find opportunistic infection and more severe OIs will be found if the CD4 count decrease until <200 (Agarwal et al, 2015; Bhuvana et al, 2015).

Fisher statistical analysis showed the new HIV patients with CD4 count <200 cells/mm³ had risk 2,514 time more than HIV patients with CD4 count >200 cells/mm³ to have opportunistic infections.

The high incidence of tuberculosis infection in people with HIV can be caused tuberculosis always was founded on TB patients and the patients who had TB history.

The decline CD4 count and it function on HIV-infected patients causes a disruption of cellular immunity and damage to macrophages that will affect the body's immune system against TB infection, making it easier for people with HIV to become infected with TB. The proportion of TB incidence in people with HIV 40 times higher when compared with non-HIV patients. WHO reported 40-50% of the world's HIV patients had TB infection. (Ministry of Indonesia Health 2012).

Candidiasis is one of the most common opportunistic infections in people with HIV. The Candida albicans lives commensally in the oral, gastrointestinal and vaginal. A study founded 50% incidence of candidiasis occurring in less than 200 cells / mm³ of CD4cells in HIV patients without symptom of candidiasis diseases. In normal circumstances, Candida albicans does not cause infection in the body if its ecological balance can be maintained and its host immune system functioning in normal circumstances (Nelwan, 2014).

V. CONCLUSIONS

Opportunistic infection was showed if the CD4 count decreased and type of opportunistic infection depend on severity of the HIV patients

REFERENCES

- [1] Agarwal, S.G., Powar, R., Tankhiwale, S., & Rukadikar, A. (2015). Study of Opportunistic Infections in HIV-AIDS Patients and their Co-Relation with CD4+Cell Count. *International Journal of Current Microbiology and Applied Sciences*, 848-861
- [2] Bhuvana, K. B., Hema, N. G., & Patil, R. T. (2015). Prevalence and Risk Factors for Opportunistic Infections in HIV Patients Who Developed Adverse Drug Reactions (ADRs) to Antiretroviral Therapy (ART) in a Tertiary-care Teaching Hospital. *National Journal of Physiology, Pharmacy and Pharmacology*, 200-206.
- [3] Brooks GF., Butel JS., Morse SA., Jawetz, Melnick. (2004). *Adelberg's medical Microbiology*, 23rd ed, Boston: Mc Graw Hill : 605-19.
- [4] Department of Health East Kalimantan Province. (2016,). *Profil Kesehatan Provinsi Kalimantan Timur 2015*. Retrieved January 20, 2017, from Dinas Kesehatan Prov Kaltim Website: <http://www.depkes.go.id>
- [5] Djoerban, Z., & Djauzi, S. (2014). HIV/AIDS Di Indonesia. In S. Setiati, I. Alwi, A. W. Sudoyo, M. S. K, B. Setiyohadi, & A. F. Syam (Eds.), *Buku Ajar Ilmu Penyakit Dalam* (Vol. 6, pp. 887-897). Jakarta: Internal Publishing.
- [6] Dhungana GP., Ghimire P., Sharma S., Rijal BP. (2007). Intensified case finding of active pulmonary tuberculosis among HIV positive persons in Kathmandu. *J Nepal Health Res Council*: 5: 11-6.
- [7] Ghimire P., Dhungana GR., Bam DS., Rijal BP. (2004). Tuberculosis and HIV co-infection status in United Mission Hospital, Tansen, Western Nepal. *SAARC J. Tuberculosis Lung Dis HIV/AIDS*: 32-7.
- [8] Health Ministry of Indonesia Republic (2017). *Statistik kasus HIV/AIDS di Indonesia*. Jakarta.
- [9] Nelwan, E. J. (2014). Kandidiasis. In S. Setiati, A. Idrus, A. Sudoyo, M. K, B. Setiyohadi, & A. Syam, *Buku Ajar Ilmu Penyakit Dalam* (VI ed., Vol. I, pp. 755-762). Jakarta: Interna Publishing.
- [10] National Center for AIDS and STI Control. Cumulative HIV/AIDS situation of Nepal
- [11] (Facts and Figure) as of 17 Oct 2009, Teku, Katmandhu, (online). Available from URL: <http://www.ncasc.gov.np/pics/category/files/1259600551.pdf> (cited 2009 Dec 2)
- [12] Sanchez, T., Brooks, J., Sullivan, P. (2005). *Bacterial diarrhea in persons with HIV infection, United States, 1992-2002*. Retrieved June 2017, from <http://www.ncbi.nlm.nih.gov>
- [13] Singh, R., Kashyap, A., Puri, S., & Whig, J. (2013). Pulmonary Manifestations in HIV Seropositive Patients and Their Correlation with CD4 Counts in a Tertiary Care Centre of North India. *JK Science-Journal of Medical Education and Research*, 140-144.
- [14] World Health Organization. (2007). *WHO Case Definitions of HIV for Surveillance and Revised Clinical Staging and Immunological Classification of HIV-Related Disease in Adults and Children*. Retrieved June 2017, from <https://who.int>

The Effect of Health Education on the Level of Knowledge About Stress Management Students of SMAN 5 Palangka Raya

Putria Carolina¹⁾, Wawan Kurniawan Setiawan²⁾, AdyFraditha³⁾

¹⁾*Eka Harap School of Health Science, Palangka Raya, Indonesia
E-mail: putria_ekaharap@yahoo.co.id*

²⁾*Eka Harap School of Health Science, Palangka Raya, Indonesia
E-mail: wawanbarclyse@gmail.com*

³⁾*Eka Harap School of Health Science, Palangka Raya, Indonesia
E-mail: ady.fraditha@gmail.com*

Abstract. Stress is a condition or feeling experienced when people to think demands exceed the personal and social resources capable of someone deployed. Stress experienced by students known as academic stress. Stress Management are making changes way of thinking and feel, in a way of behaving. Health education is the effort made to provide knowledge as the basis for behavioral changes that can improve the health status of individuals, families, groups, and communities through learning activities. Objective: The purpose of this research to analyze the effect of health education on the level of knowledge about stress management students of SMA Negeri 5 Palangkaraya. Methods: The research design used is Pre-Experimental i.e. using the one-group pre-post test design. Sample in this research was 47 respondents, the techniques used in sampling is Stratified Random Sampling. Data were analyzed by using Wilcoxon Signed Rank Test. Results: The results of analysis of education influence health on the level of knowledge about stress management showed a significant influence value $0,000 < 0.05$, H1 accepted meaning there effect on the level of education health knowledge about stress management students of SMA Negeri 5 Palangkaraya. There is Effect Against Health Education Knowledge Level findings showed influences of Knowledge Level on taxable income given health education. It is recommended for students to manage stress with good stress management.

Keywords: health education, stress management, knowledge level

I. INTRODUCTION

Stress is a topic of everyday conversation, but the ability to define and forecast stress remains unclear and every individual experiences it. Stress is a stressful situation themselves individu caused by non - balance between the capabilities of the existing demands [1]. Stress experienced by students is known as academic stress, according to Gadzella [2]. Academic stress is stress related to teaching and learning process. Health education is a form of intervention or effort aimed at behavior, so that the behavior is conducive to health [3]. Health education is oriented to the provision of information so as to increase one's knowledge. Knowledge is recognition, awareness, and understanding. Knowledge can also mean everything that the mind has observed and [4]. Stress management is making changes in the way of thinking and feeling, in a manner of behaving, and quite possibly in the environment. Implementation of stress management in everyday life so students can prevent stress experienced so as not to arrive at the level of severe stress. The phenomenon that occurs in SMA Negeri - 5 Palangka Raya students do not understand how to manage or manage stress properly. This condition can also be bad because those who

live in the dormitory who in their daily life only meet with friends and must adjust to the schedule set by the dormitory and sometimes appear disharmony between peers and older siblings for some reason that may be only because of trivial problems .

Based on studies conducted in developed countries, South Korea is becoming the country with the most unhappy children, the cause is due to the very high educational pressure in the country. A survey of more than 4,000 households with children younger than 18 found that the most relevant factors were academic stress, followed by school violence, Internet addiction, carelessness and cyber violence [5]. The increased stress on adolescents will affect their mental health. Reference [6] show the results of research conducted by in SMA Pasundan 2 Bandung showed there are 48.3% of students whose stress level is very high; 45% of students are in high category; 6.67% of students are in the medium category; and none of the learners (0%) are in low category and very low. The results of reference [7] show study on stress levels among female students of SMA Negeri 1 Padang Panjang in 2011 showed that most of the 109 people (75.7%) had moderate stress, some 35 people (24.3%) had stress mild, and no respondents who experienced severe stress levels. Based on preliminary

survey conducted on March 21, 2016 at SMA Negeri 5 Palangkaraya, showed that students do not understand how to manage stress rather unexpectedly and after being tested using the instruments of Depression Anxiety Stress Scale 42 (DASS 42) shows for a stress scale of 2 people respondents experienced moderate stress level and 1 person experienced mild stress level from 10 respondents.

Being a student is not easy, because there will be many demands and school assignments to him, in addition to being a student also means being a hope for family and society. Demands and expectations that are too big can turn into a burden and stress for learners. Stress experienced by students is the result of subjective perception of the mismatch between the demands of the environment with the actual resources owned by students. Dense learning schedules sometimes bring stress to students because students feel tired and saturated due to a day of learning. This condition is added because students live in dormitories, where they must be good at sharing time in following all activities in the dormitory. Various factors that affect learners experiencing academic stress are derived from within, such as: the condition of the body is less healthy, sickly or there is a personal conflict that seizes (disturbs) the mind, and failure in achieving something to be desired; emerge from the family, for example: disharmony between members, authoritarian parents, financial problems or monthly stagnant let alone living away from parents, or loved ones loved to fall ill or die; and neighborhoods and surrounding communities, for example: other class noises during exams, or the loud pounding of music that pains the ears while we are resting, and the streets are jammed while driving to school. The impact of increased academic stress on the learners is in the form of decreased motivation to learn, the competence is not developed, not fulfilled passing standard set by the school and government that can ultimately reduce the quality of education. Impact of physical stress, learners look lethargic, not eager to follow the lesson, and will easily get sick. In line with statements by Kahn [8] academic stress can cause fear to go to school, late, or refuse to attend school (absent), the occurrence of cases where the child is looking for an excuse not to go to school, or go to school later without as parents are absent in school and spend their time outside school. In addition, stress can also lead to maladaptive behavior for learners in personal and social life. Strategies for managing stress are by worshipping, sleeping for at least 7 hours, Time Management, Budget Management, and doing the things you like according to his hobby.

The role of nurses in an effort to improve the health level is running activities in the field of promotive, preventive, curative, and rehabilitative. The phenomenon of stress among learners can be reduced by promotive and preventive measures. Promotive Effort is an activity undertaken to provide knowledge to the students about stress management so it is expected to help learners in reducing stress levels, where as preventive or prevention efforts by a nurse in reducing stress levels of students is to help students face the

symptoms of stress they experience namely by providing health education to increase knowledge. It is expected that by providing health education about stress management students can reduce or reduce the stress level so that it is within the limits of tolerance or not until harm and negative impact for himself and the people around him. Therefore, researchers interested to examine about how the effect of health education to the level of knowledge about stress management in SMA Negeri - 5 Palangka Raya.

II. METHODS

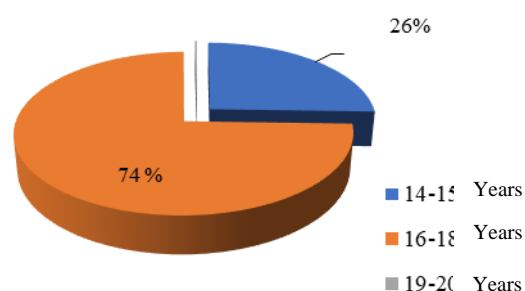
The research design used was pre experimental research with One-group approach of pre-post test design that is kind of research which reveal causal relationship by involving one group of subject.

This research was conducted in SMA Negeri - 5 Palangka Raya. Sampling of syringe in this study using random sampling with the subject of research amounted to 47 students SMA Negeri - 5 Palangka Raya. The research instrument used is a questionnaire in the form of double (only 1 correct answer) to be given to the research respondents. The questionnaire used contained of questions about stress management. This study uses a knowledge level questionnaire about stress management. The first stage of the questionnaire was given before the health education on stress management in the second stage of the questionnaire was given again to the same question after health education on stress management. Category of knowledge: Good: if a score of > 75% is obtained. Enough: if a score of 56% -75% is obtained. Less: when a score of <55%

III. RESULT AND DISCUSSION

1. Characteristic Respondents by Ages

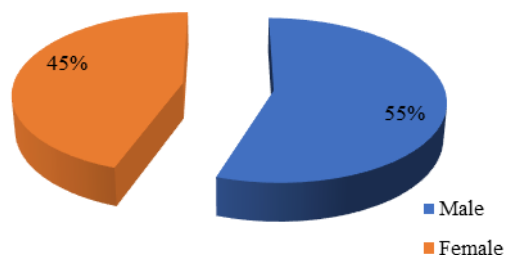
Characteristics of respondent's ages were obtained through questionnaires given to 47 respondents. The results are as follows:



Based on the above data it can be seen that from 47 respondents, as many as 12 respondents (26%) aged 14-15 years, as many as 35 respondents (74%) aged 16-18 years, and no respondents aged 19-20 years.

2. Characteristic Respondents by sex

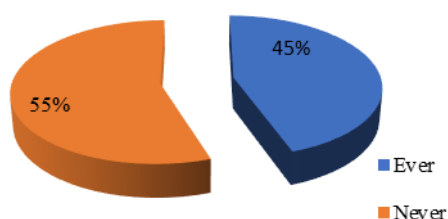
Characteristics of respondent's sex were obtained through questionnaires given to 47 respondents. The results are as follows:



Based on the above data it can be seen that from 47 respondents, 26 respondents (55%) were male, and 21 respondents (45%) were female.

3. Characteristic Respondents by Had Received Information.

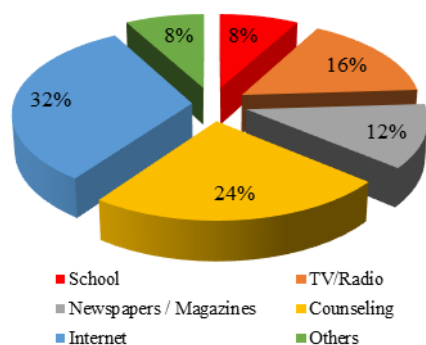
Characteristics of respondent's had received information were obtained through questionnaires that given to 47 respondents. The results are as follows:



Based on the above data it can be seen that from 47 respondents, as many as 21 respondents (45%) had received information about stress management and as many as 26 respondents (55%) never get information about stress management.

4. Characteristic Respondents by Information Sources

Characteristics of respondent's information sources were obtained through questionnaires given to 47 respondents. The results are as follows:

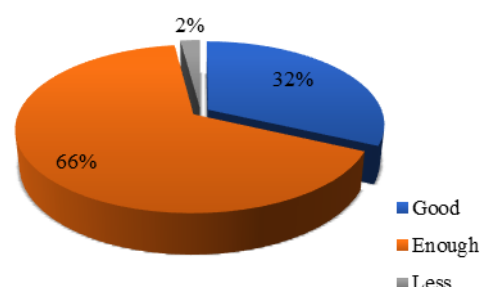


Based on the above data it can be seen that from 47 respondents who have received information, as many as 2

respondents (8%) got information from school, as many as 4 respondents (16%) got information from TV / Radio, as many as 3 respondents (12%) got information from Newspaper / Magazine, as many as 6 respondents (24%) got information from counseling, as many as 8 respondents (32%) got information from the internet, and 2 respondents (8%) got information from other.

5. Result of Identify Level Knowledge Before Given Health Education.

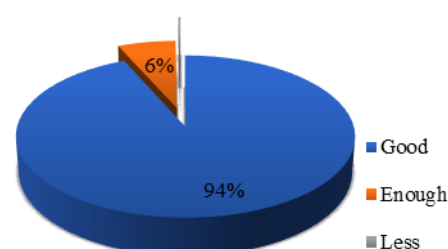
Data below show the result of identify level knowledge before given health education. Data obtained through questionnaires given to 47 respondents. The results are as follows:



Based on the data above the level of knowledge before the given health education, students with less knowledge as much as 1 respondent (2%), knowledge level as much as 31 respondents (66%), and knowledge level as much as 15 respondents (32%), with 47 respondents.

6. Result of Identify Level Knowledge Before Given Health Education

Data below show the result of identify level knowledge after given health education. Data obtained through same questionnaires with before. The results are as follows:



Based on the above data the level of knowledge after being given health education, students with knowledge level is enough as much as 3 respondents (6%), and knowledge level of 44 respondents (94%), with 47 respondents.

7. The Effect Of Health Education On The Level Of Students Knowledge About Stress Management

Data below show the result of the effect of health education on level knowledge. The results are as follows:

Test Statistics	
	Post_Test - Pre_Test
Z	-5,145 ^b
Asymp. Sig. (2-tailed)	,000

Based on the results of the above data obtained Sig analysis results. (2-tailed) 0,000 which means less than p value 0.05, so significant $<p$ value (0.000 <0.05) then H1 accepted means there is effect of Health Education on Stress Level Knowledge on Students of SMA Negeri - 5 Palangka Raya.

The results of statistical tests in this study indicate an increase in the level of knowledge of respondents at the time of pre-test (before getting health education) and post-test (after getting health education). This is indicated by the significant difference seen from the mean of pre-test and post-test at p -value = 0,000 (<0.05). So it can be concluded there is the influence of health education on the level of knowledge about stress management in SMA Negeri - 5 Palangka Raya. This proves that health education about stress management is quite effective and efficient and give influence to increase the knowledge of student in a short time and according to existing theory, besides packing interesting material, delivery of material and language of delivery which is adjusted to education level , age of respondent influence to increase of respondent knowledge.

Increased knowledge of respondents in this study because of the provision of information, where therein the learning process. Learning process according to reference [9], can be interpreted as a process to increase knowledge, understanding, and skills that can be gained through experience or conduct studies (teaching and learning process). By studying the individual is expected to explore what is hidden in him by encouraging to think and develop his personality by freeing himself from his ignorance.

This study is also in line with research conducted by reference [10], which examines the effect of health education on the knowledge and attitude of high school adolescents X in preventing HIV / AIDS in Karanganyar District. This study indicates that there is a difference in the level of students' knowledge about HIV / AIDS prevention between before and after health education, as evidenced by Wilcoxon signed rank test, with pre-test and post-test results in experimental group p -value = $<0,05$ is 0.000 which means there is influence of health education to level of respondent knowledge.

According to Machfoedz, Health education is a process that includes the dimensions and intellectual, psychological, and social activities necessary to enhance the individual's ability to make decisions consciously and which affect the well-being of self, family and society. In general, the purpose of health education is to help individuals, families, and communities achieve an optimal level of health. Health education aims to change individual behavior. family, and society from unhealthy behaviors become healthy. Behavior that is inconsistent with health values becomes behavior that conforms to health values or and negative behavior to positive behavior. Education is a factor that affects a person's level of knowledge, which means the guidance that someone gives to others on something. In order for people to have a better understanding of the

existence and changes of the system and how to use it efficiently and effectively. In order for people to learn what they can do for themselves and how, without always asking for help to the formal health care system. Health education affects the level of one's knowledge. Knowledge (knowledge) is the result of human sensing, or the result of knowing a person to the object through the senses he has (eyes, nose, ears, and so on). Factors that affect a person's level of knowledge, consisting of education, information or mass media, social, cultural and economic media, environment, experience, and age.

Education is a learning effort to the community so that the community will take actions (practices) to maintain (overcome the problems), and improve their health [9]. The changes or maintenance actions and health improvements generated by health educators are based on their knowledge and awareness through the learning process.

The results of this study are not in line with the reference [11] entitled the effect of health education on the level of adolescent knowledge about reproductive health in Islamic Junior High School Ciputat. The result of her research by using Wilcoxon test obtained Sig value. of 0.051 ($p > 0.05$). Thus it can be concluded that there is no significant difference in the students' knowledge between before and after intervention. Success in conveying information is determined by the nature and quality of information received and in this case is determined by the nature and quality of the information submitted by the researcher to the students. Other factors that may also affect the results of research is the perception, motivation and experience that according to reference [9] is a factor that affects one's knowledge. During the process of health education, SMA Negeri - 5 Palangka Raya students followed well, when the researchers gave their material a good listening and very enthusiastic answer when occasionally given a question by the researcher who delivered the material about stress management. Respondents' demographic data based on information sources has shown that most students have been informed about stress management from various sources such as from School, TV or Radio, Newspapers or Magazines, Counseling, Internet, Others. Most students get a source of information about stress management from the internet and counseling. This is in line with the opinion according to Notoatmodjo, that the level of knowledge is influenced by several factors, one of which experience. The experience in question is the presence of exposure to information obtained by individuals both in formal and non-formal activities that resulted in a memory [12].

Based on the description above, there is the influence of health education on the level of students' knowledge about stress management. The existence of the influence of the education of kesetahan to the level of knowledge due to the good cooperation between researchers and respondents, when researchers provide health education about stress management, respondents follow very well and no respondents are not cooperative during the activity.

IV. CONCLUSIONS

Before being given general health education students knowledge is in enough categories. This is because respondents have heard or read about stress management from several sources such as TV, Magazine or Newspaper, Internet, and counseling.

After being given health education the students' knowledge level is in the good category. This is because the respondents followed well the health education activities about stress management and also actively ask questions.

From result of data analysis, there is show the effect of health education to level of knowledge about stress management of student at SMA Negeri - 5 Palangka Raya..

- [12] Maulana, D. J. Heri. *Promosi Kesehatan*. EGC. Jakarta, Indonesia. 2009.

REFERENCES

- [1] Nasir, A., & Muhith, A. *Dasar Keperawatan Jiwa Pengantar Dan Teori Dasar*. Salemba Medika. Jakarta, Indonesia, 2011.
- [2] Maryama, Hanna. *Pengaruh Character Strengths Dan Gender Terhadap Stres Akademik Mahasiswa UIN Jakarta Yang Kuliah Sambil Bekerja*. Skripsi. Universitas Islam Negeri Syarif Hidayatullah Jakarta, Indonesia. 2015.
- [3] Notoadmojo, Soekidjo. *Promosi Kesehatan dan Perilaku Kesehatan*. RinekaCipta. Jakarta, Indonesia. 2012.
- [4] Haniek, Hilya. *Hubungan Antara Pengetahuan dan Sikap dengan Perilaku Hidup Bersih dan Sehat pada Ibu Rumah Tangga di Kecamatan Lubuk Sikaping*. Skripsi. Universitas Islam Negeri Syarif Hidayatullah. Jakarta, Indonesia. 2011.
- [5] Reuters. *Studi: Anak-anak Korea Selatan Paling Tidak Bahagia*.
<http://www.voaindonesia.com/content/studianakanakko-reaselatanpalingtidakbahagia/2508745.html>. 2014.
- [6] Nurakhman, Arif. *Program Bimbingan Untuk Mengelola Stress Siswa*. Skripsi. Universitas Pendidikan Indonesia. 2009.
- [7] Mayyane. *Hubungan Antara Tingkat Stres Dengan Kejadian Sindrom Pra Menstruasi Pada Siswi Sma Negeri 1 Padang Panjang Tahun 2011*. Jurnal. Universitas Andalas. Indonesia. 2011.
- [8] Fachrosi, E.. *Perbedaan Stres Akademik Antara Kelompok Siswa Minoritas Dengan Mayoritas Di SMP Wr. Supratman 2 Medan*. Skripsi. Universitas Sumatra Utara. Indonesia. 2013.
- [9] Notoadmojo, Soekidjo. *Promosi Kesehatan Dan Ilmu Perilaku*. Jakarta: PT. RinekaCipta. Indonesia. 2007.
- [10] Muliana, Maria. *Pengaruh Pendidikan Kesehatan Terhadap Tingkat Pengetahuan Dan Sikap Remaja SMA X Dalam Upaya Pencegahan HIV/AIDS di Kabupaten Karanganyar*. Jurnal. Universitas Muhammadiyah Surakarta, Indonesia. 2014.
- [11] Septiana. *Pengaruh pendidikan kesehatan terhadap Tingkat pengetahuan remaja tentang Kesehatan reproduksi di SMP Islam Ruhama Ciputat*. Skripsi. Universitas Islam Negeri Syarif Hidayatullah. Jakarta. 2014.

Menginang Views Of Culture And Health In Central Borneo

Effrata¹⁾

¹⁾ FISIP Lecturer Social and Political Science Program, PGRI Palangka Raya, Palangka Raya, Indonesia
E-mail: effrata1970@gmail.com

Abstract. Indonesian is a country colored with various ethnic groups. It is characterized by various religions, languages, dialects, cultural patterns, and cultural value systems contained in very diverse societies. Of the diversity of this tribe also Indonesia has a diversity in terms of culture and values of trust. One of them is a culture or a habit of witching that until now still become one of the culture of the Dayak tribe. Dayak tribe is one of the tribe which is quite famous in Indonesian. This tribe mostly inhabited the area of Central Borneo.

Keywords: -

I. PRELIMINARY

Indonesia is a country formed from various tribes. There are Javanese, Sundanese, Batak, and other tribes. Dayak tribe is one of the tribe which is quite famous in Indonesia. This tribe inhabits Central Kalimantan. There is one culture of the Dayak tribe that is almost the same in some areas in Indonesia, that is to wake up. It is the same as in Java, but the culture of the Dayak tribe has its own local wisdom philosophy.

Host or eat betel usually placed in a special place. This place is usually referred to as hosting. Fixtures such as betel vessels, tobacco, kinang pest, pin cutting, red saliva or betel leaf and special kinang container. If the person wants to invoke is usually provided kinang consisting of basic ingredients and complementary herbs. The main ingredients consist of betel leaf, gambier, whiting, and betel nut, while the complement ingredients consist of tobacco, cardamom, cloves, turmeric, and orange leaves. This complementary herb is usually not the same type, between one person with another person, some are using a complete kinang, but some are using some of it, not even using a complement at all

II. THE ORIGIN OF WANTING TRADITION

The tradition of not knowing exactly where it comes from. From literary narratives, derived from India. However, apart from India, betel has been known by the people of Southeast Asia, including Malaysia, and then this tradition spread to Indonesia. The oldest archaeological evidence is found in the Spirit Cave, Thailand. Habit has been done by the people of Indonesia since the first, both from Sumatra, Sulawesi, Maluku, Borneo and Papua.

III. THE PHILOSOPHY OF MENGINANG

Apart from being a social and custom symbol, betel nut, areca nut, and other ingredients have certain meanings:

1. Betel

Betel symbolizes the nature of humility and glorify others, because the betel tree requires the back to live without destruction.

2. Areca nut

Areca nut represents a good offspring, as seen from its towering tree, and there is hope of getting a good and successful offspring.

3. Lime

Lime represents a good breed.

4. Lime and Tobacco

Lime and Tobacco symbolize a heart that is steadfast and willing to sacrifice for the sake of others.

Waiting From a Cultural Viewpoint

Such a large nation of Indonesia will certainly be rich with various regional cultures. An area certainly has traditions and customs that are different from other regions. One of them The habit of eating betel and areca nut (Areca catechu L) has been known for a long time by the people of Indonesia. Precisely around the 6th century AD. This habit has been known by people in Borneo for a long time, precisely in the 9th century until the 10th AD. It then spread to the whole island of Borneo especially in Central Borneo. The people of Central Borneo in general are also very fond of eating betel nut. Parents to the children to love him. But most are middle-aged parents to grandparents are very fond of this one food.

In the people of Central Borneo, especially the Dayak tribe customs of betel as a tribute to the guests. Guests who come usually entertained with betel first newly entertained by eating. On the other hand traditions also have other functions that can eliminate social differences between communities.

In the Dayak tribe community not only involves the problem of customs, but also related to the social and social values, as symbols or symbols of solidarity and social integration for the people supporting the culture. This is reflected in the habit of engaging together, dish of honor for guests, dishes or speeches and other means. This habit persists from

ancient societies to present-day communities living in the interior.

Waiting From a Health Perspective

According to WHO (World Health Organization) Health is a state of physical, mental, and social well-being and not just the absence of disease or weakness. In today's all-round practice, especially in terms of food provision, humans are very easy to health if not choose the right things that will be consumed and not in balance with exercise. Menginang as well as smoking, drinking tea and coffee. Initially people touched as a mouthpiece in the mouth, but eventually became a habit that gives pleasure and feels so delicious that it is difficult to be released.

A belief about the impact of the host that is formed in the health-related community that people have the belief that the host is a pleasure, also serves as an activity to treat dental care. Menginang is a tradition of society with the basic composition of betel leaf, areca nut, gambier, lime, and tobacco. The composition is wrapped in betel leaves which are then chewed. Chewing communities have their own reasons why they chew betel nut.

International Agency for Research on Cancer (IARC) states that chewing areca has an impact on health and potentially cause cancer. Research conducted by Girish Parmar, et al., Indicated that high betel nut chewers suffering from gum hemorrhage, bad breath, difficulty in opening the mouth and ingesting solid foods, burning sensation in soft tissue and festering of the oral cavity (Parmar et al. , 2008: 57). Periodontal health status in community of betel nut betel is included in severe level as many as 74 people (80.2%) and very severe as many as 18 people (19.6%). The severity of the periodontal status is influenced by the belief in the community who recognizes that chewing betel nut is a culture that can not be separated from everyday life and does not admit chewing betel nut disadvantage health (Samura, 2009).

Chewing betel nut has an effect on untreated dental caries and has a poor influence on periodontitis, promoting increased periodontitis and tooth loss. The possible reason that betel nut damages periodontal tissue can be explained as the effect of cholinergic on betel nut along with calcium salt in saliva which can cause tooth loss. Experienced betel nut chewers have higher damage in periodontitis than non-chewers (Chatrchaiwiwatana, 2006: 8).

BIBLIOGRAPHY

- Chatrchaiwiwatana, S, (2006). Dental Caries and Periodontitis Associated with Betel Quit
- Chewing: Analysis of Two Data Sets. Journal Medical Association Thailand, 89 (7): 4-11.
- Fernando, E, (2011). Analysis of Nicotine Content in Tobacco (*Nicotiana tabacum*) Used as Tobacco Tobacco and Characteristic of the Users Users in

Gerd Village Village, Blue District District Deli Serdang. Essay. Medan: Faculty of Public Health, University of North Sumatra.

Flora, Meerjady S, Christopher Tylor, Mahmudur Rahman, (2012). "Betel Quid Chewing and Its Risk Factors in Bangladesh Adults". WHO South East Asia Journal of Public Health, 2012: 1 (2): 162-181.

Gupta PC, Ray CS, (2004). Epidemiology of betel quid usage. Ann Acad Med Singapore, 33 (4): 31-36.

Herijulianti, E., Indriani, S.T., & Artini, S, (2002). Dental Health Education. Jakarta: EGC Medical Book Publishers.

Ugang, Hermogenes, Tracing the Village Lines, (Jakarta: BPK Gunung Mulia, 1993)

Measure, Fridolin, Challenge-Djawab Duku Tax, (Jakarta: CPC Gunung Mulia, 1971)

Study of Non-Smoking Area Regulation and Its Legal Enforcement in Developing Country

Endang Sutrisno ¹⁾, Aji Halim Rahman ²⁾

¹⁾ *Law Faculty & Graduate, University of Swadaya, Cirebon, Indonesia*
E-mail: -

²⁾ *Law Faculty & Graduate, University of Swadaya, Cirebon, Indonesia*
E-mail: -

Abstract. A great problem in developing country in accordance with society smoking habit is the disobedience of society to understand the facility that can be used for smoking, especially in public places and the existence of legal norm of Cirebon government Number 8 Year 2015 about Non-smoking Area, it formulates the policy of human rights to get good and healthy environment, through legal doctrinal study, with the goal to understand the awareness and obedience of society to that norm. Result of the study shows the regulation of non-smoking area policy in public places especially in Kejaksan train station of Cirebon needs coordination among institution in it legal enforcement and supervision and evaluation are needed to be done to reach legal goal, with the influencing factor that affects legal enforcement that are insufficient facility, limitation of human resources of legal enforcement officer and the low level of society legal awareness and obedience to understand the importance of non-smoking area.

Keywords: Regional Regulation, Non-Smoking Area.

I. RESEARCH BACKGROUND

Indonesia has committed to guarantee the protection of human rights in the context of getting clean and healthy environment that is free from any kind of pollutions, including clean air for society, this is taken by Regional House of Representatives (RHP) of Cirebon, West Java, by giving agreement of legalization of Regional Regulation Plan about Non-Smoking Area (NSA) to be regional regulation in the middle of September 2015. In this regulation, government wants to protect non-smoking people from the danger of cigarette smoke. The regional regulation of Non-Smoking Area (NSA) that has been legalized must be socialized to society by Cirebon government for a year. There are seven areas decided as Non-Smoking Area (NSA) such as health service facility, teaching learning area, children playground area, praying area, public transportation, work place and other public places, and that regional regulation also arranges administrative sanctions and punishment for those who violate the regulation.

Smoking in public places, here is meant as facility provided by government, private or individual that is used for society activity, violates other person right to enjoy clean air and cause health problem to non-smoking person especially in research area of PT Kereta Api Kejaksan Cirebon DAOP III. Legal norm in 1945 Constitution of the Republic of Indonesia in accordance to health is arranged in Article 34 paragraph (3) that is government is responsible to provide sufficient health service facility and public service facility and Article 28H paragraph (1) that is every person has rights to live prosperously physically and mentally, has place to

live, and get good and health environment and get health service.

But in its implementation, the prohibition to smoke in public places has not given big impact to the smoker who is still smoking in public places or in the places that are forbidden to smoke according to the regulation. This happened because of many factors such as lack of socialization from government for the prohibition to smoke in public places.

Regional Regulation about Non-Smoking Area is a way to protect society from active smoker so that the culture and custom of society in this case is smoking habit, affect the issuance of the prohibition to smoke in public places by creating non-smoking area.

Regulation can be said as guidance for people to live orderly and regularly. If there is no regulation, people will act arbitrarily, without control and hard to be controlled. There are many types of regulation in the life of society and state, but in the context of Indonesia written regulation issued by governmental institution or officials and bound legally is called as rules of law. Legal problem emerges related to what is the legal foundation of non-smoking area in Kejaksan train station Cirebon, factors that can affect the legal enforcement of the regional regulation of non-smoking area.

II. METHODS

This research according to its goal is normative legal research that covers research of legal principles, foundation of positive law, legal system and research to the synchronization of law and in concrete legal finding that is

suitable to be applied to solve certain legal problem, that is why in approaching the problem pure juridical approach is used, that cover research of legal principles that try to know legal construction in implementing regional regulation of non-smoking area in Kejaksaan train station Cirebon.

For the interesting interest of legal principle, method used is more analitic-normative, especially with using primary legal items that cover law which has authoritative force, and secondary legal item, that gives explanation about primary legal items, such as plan of law, research results, paper of seminar and other sources written by legal expert . Along with studied research substance, normative legal research is a study of rules of law in a coherent legal system , so law is meant as positive norm, exist in certain time and issued as explicit product of political authoritative force that has strong legitimation.

III. THEORETICAL FOUNDATION

If law is believed as tool for regulating society, so the method used is sociological. This method will relate law with attempt to achieve goals in fulfilling society real needs. The main point is the effectiveness of law. To get the rare understanding of law, law must be seen from two sides that are normatively (law in book) and sociologically (law in action) .

In studying law in society life, Max Weber saw the importance of mechanism to deliver society development to modern society, besides showing reciprocal relationship between society development and its legal condition . In developing society like Indonesia, changing in legal area will affect other areas of life, and vice versa. The confrontation of the traditional norm with the modern norm results in the reality at the intersection of norm encounter; communities lose their basic foundation to undergo the development process, while on the other side the modern norms are not fully accepted as a guidance in doing the development process .

Law as the society renewal mean is based on the assumption that there should be ordinance and tranquility in developing process . Renewal is something that is wanted and seen as the absolute thing. Besides that, the norms or rules of law function as regulator or developing tool that guides society to the development goals . Law cannot do its function to do social engineering when society is changing, that happens continuously as the result of development process that bring big implications in society development dynamic .

Regulation and policy of law made by government does not work as expected and goals that wanted to be achieved. That fact is caused by the law that cannot work alone. There are many aspects besides the law such as politics, social, and culture also have role and affect the work and effectiveness of law in society.

Non legal aspect not only contain interests that in relevance with law. Among many interests, there are dispute that tend to social conflict. In economic aspect, for example full of

economic motivations for getting benefits from economic action that is done.

Concept of legal country Rule of Law is a concept that considered the most ideal these days, although that concept is done with different perception. The term "rule of the law" in bahasa Indonesia is often called "supermasi hukum". Besides that, the term government by law or *rechstaat*, also often used .

Government by the law means making law become the guidance/foundation by government in practising the country. Definition of government by law according to opening of 1945 Constitution of the Republic of Indonesia is government by law in material that means country protect all Indonesian people, Indonesian land and to improve public prosperity, make Indonesian people smarter, and participate in keeping world peace based on independence. Eternal peace and social justice, arranged in 1945 Constitution of the Republic of Indonesia is based on Pancasila .

Article 1 paragraph (3) of 1945 Constitution of the Republic of Indonesia states that Indonesia is legal country. It means a country that empower legal supremacy to keep truth and justice and there is no irresponsible authority .

Based on the above explanation, legal country is a country above the law that guarantee justice for its people. That is why every good deed done by Indonesian authority or people must be based on legal corridor .

On the other side, law enforcement is not an exact action, that apply law in an action, it can be said as pulling a straight line between two dots . Other definition of law enforcement is an effort to realize legal ideas and concepts that are expected by citizen to be true. Law enforcement is a process that involve many things . Factors that affect law enforcement is law itself, law enforcement officer, facility, society and culture .

Components in law enforcement process must support each other, so there is no component that is more dominant than other component, or in other perception all components must support each other to build legal effectiveness.

IV. RESEARCH FINDINGS AND DISCUSSION

A. *Non-Smoking Area of Cirebon in Kejaksaan Train Station*

Law enforcement officer mentality has important role, if the rules are good, but if the quality of the officer is not very good, there will be a problem. That is why, one key of success in law enforcement is mentality or personality of law enforcement officer.

Law enforcement of regional rule of non-smoking area, law enforcement officer is one factor that can affect it. Apparatus of Cirebon Pamong Praja Police as the front row in regional rule enforcement is not suitable with number of regional rule in Cirebon that relatively large. Besides that, it must be understood that sociologically the one that define enforcement process of regional regulation is not only the domain of regional regulation officer an sich, but also many

parties who involved in the decision making of this regional regulation. So, in this regional regulation enforcement of non-smoking area, between legislative, executive, and judicative can be synergy.

Number of special police of train is still limited and moreover still focused on the train only so the rules breaking in train station area only handled by security only, that has duty to serve passengers well from the safety side, comfortability, information, and assistance if needed, other than giving service in train station area also serve passengers on the train.

While duty for special police of train is a partner of Indonesian Police Force that has function as special police of PT KAI (Persero), related to that special police of train is more preventive and not to the level of investigation and control if there is crime and regional regulation of non-smoking area because employee status and authority difference with Indonesian Police Force. Special police of train is organic employee of PT KAI (Persero) who is recruited according to procedure of recruitment system of PT KAI (Persero).

Punishment through light crime mechanism as the mean of regional regulation enforcement of non-smoking area must be followed by prevention effort as stated in Article 31 of Regional Regulation of Non-Smoking Area about administrative punishment, so the law enforcement become maximum. Besides that, the other important means cover the ability of Regional Government apparatus, good organization, supporting goods, and sufficient budget.

Society awareness factor, the higher the quality the regional regulation enforcement of non-smoking area runs well and vice versa. Hard work is needed from Cirebon Government, because the culture of society law in Kejaksaan train station Cirebon has not positive yet, especially the obedience of Regional Regulation of Non-Smoking Area.

Law enforcement apparatus in enforcing Cirebon Regional Regulation about Non-Smoking Area done by pamong praja police in this regional regulation is also arranged in Article 1 paragraph 16 of Regional Regulation Number 8 Year 2015 that head or person in charge is a person and/or legal institution that because of his position lead and/or is responsible for activity and/or effort in a place of non-smoking area whether it is owned by government or private, in this case is head of PT Kereta Api Indonesia Daop III Kejaksaan Cirebon.

Enforcement of regional regulation done by Kejaksaan Train Station Cirebon still have obstacle by the employee who is not from legal area, because from educational aspect there is employee with senior high school background.

Interview result with Public Relation Manager of PT KAI Kejaksaan Kota Cirebon Daop III, explain that key performance indicators in the form of implementation related to the implementation of non-smoking area in Kejaksaan train station is every worker has the same portion in implementing that regulation. The implementation form is usually in the form of greet each other without limitation of position, so the superior and employee has their own role

and rights to warn and even report and get punishment arranged by PT Kereta Api Indonesia Daop III related to smoking prohibition in train station area.

Law enforcement process is divided into two, repressive and preventive actions. Preventive action here is action done before the enforcement is implemented repressively whether it is done by negotiation, persuasion, and supervision in order to make rules of law or requirements are obeyed.

Based on the observation result, interview or documentation, there is suitability with the implementation of Regional Regulation Number 8 Year 2015 about Non-Smoking Area in Kejaksaan Train Station, this can be seen from the signs/announcement/warning of smoking prohibition and special room for smoking is not very optimum.

One principle in enforcing Cirebon regional regulation about non-smoking area is society service that must put forward the comfortability for society especially the passenger and visitor of Kejaksaan train station Cirebon. That is why the government is enforcing that regional regulation until the implementation of policy in Kejaksaan train station. Based on that thing, PT Kereta Api Indonesia issued Director Instruction of PT KAI (Persero) Number: 4/11.006/KA-2012 about Smoking Prohibition on Train.

While the newest policy is Director Instruction Number: 3/LL.006/KA-2014 point three stated that according to the above explanation, it is instructed to EVP/VP of Headquarter, Java Operation Area, Regional Division, Regional Sub Division in Sumatra, Directors of the company of PT Kereta Api Indonesia (Persero) and all staff to:

Forbid smoking to all people in train facility whether they are on locomotive, train and other moving facility on trip and/or stop in train station.

Do enforcement and supervising to smoking person on moving train facility.

Give sanction to employee of PT Kereta Api Indonesia (Persero), sub company of PT Kereta Api Indonesia (Persero) and all who do not do this instruction.

B. Factors that affect the enforcement of Regional Regulation of Non-Smoking Area in Kejaksaan Train Station Cirebon

Means and facility are everything that can be used as tool that can give easiness and smoothness in getting the goals and aims. If the goals and aims are to make law effective, so all supporting means and facility need to be provided so all who do the law will feel easy and comfortable with the means and facility.

Until now, there is no special room for the smoker in Kejaksaan train station Cirebon, so they smoke anywhere. Or they put down their cigarette when entering Kejaksaan train station area because there is an officer who is firm in prohibiting passengers and visitor to smoke.

But for the platform besides the railway that people usually use for waiting for the train to arrive, there is smoking area because it is an open space so PT KAI makes special place for smoking.

Law enforcement of non-smoking area in Kejaksaan train station through instruction of PT KAI Director about

Smoking Prohibition in Train Station Area and the issue of Regional Regulation about Non-Smoking Area in Cirebon Number 8 Year 2015 is not for managing and directing active smoker to keep and guarantee the air that is free from cigarette smoke in train station for common comfort.

Facility condition especially smoking room is not ideal and complete because in waiting room of train station there is no ideal smoking room, only an open space besides the railway in the train station. Facility becomes the determining factor of law enforcement.

Society and management support is very important in implementing Regional Regulation of Non-Smoking Area in Cirebon. Support appears after someone understand the goal of Regional Regulation of Non-Smoking Area implementation. Support appears sincerely after the management understands positive impacts that are gotten after implementing non-smoking area policy. Support can appear after the management proves the benefit of the implementation of non-smoking area regulation. Interview result with Public Relation of PT. KAI Daerah Daop III Kejaksaan Cirebon explains that policy or instruction of Director of PT KAI needs time for socialization for 2 (two) weeks after the implementation and then start to implement firmly.

Basically law is objective rules to achieve public kindness and justice. Justice does not let forced sacrifice to a few people that is burdened by most benefit enjoyed by many people. That is why in society freedom of citizen is considered good, rights guaranteed by justice do not obey the political bargain and calculation of social interest. Besides that policy of non-smoking area must be reviewed in perspective of certainty, justice, and benefit of law.

Regional Regulation about Non-Smoking Area is arranged based on democratic principles that respect all group interests in one area. Draft of Regional Regulation of Non-Smoking Area is arranged based on Top Down principle, not Bottom Up principle. A set of regulation is designed from top, to be legalized and implemented in bottom. Interview result with one member of House of People Representative Cirebon of Commission C gives description that the arrangement of regional regulation about non-smoking area is one way to guarantee the rights of healthy air for all Cirebon society.

The implementation of punishment for those who break the rule because of smoking in Kejaksaan train station Cirebon is only a warning and reprimand while for those who are smoking on the moving train, the punishment is forced to get off in the nearest train station. Punishment arranged in Regional Regulation of Cirebon Number 8 Year 2015 about Non-Smoking Area, in Article 17 states that every person who breaks the rules of Article 17 must pay Rp 50.000,00 (fifty thousand rupiah) and/or administrative punishment in the form of temporary holder of ID Card or other identity card.

Article 36 states that every person who breaks rule of Article 8, Article 11, Article 15 and Article 16 must pay Rp 2.500.000,00 (two million five hundred thousand rupiah)

and/or administrative punishment in the form of temporary holder of ID Card, other identity card, and/or announcement in mass media.

While Article 37 arranges every person who breaks rules of Article 6 paragraph (6), Article 13, Article 14, and Article 22 must pay Rp 5.000.000,00 (five million rupiah) and/or administrative punishment in the form of temporary holder of ID Card, other identity card, and/or announcement in mass media. While rules of administrative punishment implementation and fine in non-smoking area is arranged by Mayor Regulation.

V. CONCLUSION AND RECOMMENDATION

A. Conclusion

1. Implementation of Cirebon Regional Regulation Number 8 Year 2015 about Non-Smoking Area in Kejaksaan Area has run well, but there are some obstacles related to facility, human resources of law enforcement as structural component that is law enforcement apparatus who can affect law enforcement process, because law in certain approach can be categorized as system approach. Kejaksaan train station Cirebon as one place arranged in Regional Regulation Number 8 Year 2015 about Non-Smoking Area in Cirebon, as a place to provide one of public transportation needs comfortability as main point to give service to society or passenger;

2. This study points the process of law enforcement of non-smoking area done by PT Kereta Api Kejaksaan Daop III in the relation to the implementation of Regional Regulation of Cirebon Number 8 Year 2015, the alternative offered for law enforcement of that regulation through socialization and coordination among institutions and doing monitoring, and evaluation to the effectiveness of the implementation of that regional regulation.

B. Recommendation

1. PT Kereta Api Kejaksaan Daop III Cirebon must do improvement of facility and existence of human resources of law enforcement apparatus through regional regulation need to be supervised so the enforcement of regional regulation about non-smoking area can work well and well targeted;

2. Communication is needed for more systematic coordination of law enforcement of regional regulation among legislative, executive and other parties involved in location decided by Regional Regulation about Non-Smoking Area, in this case is PT Kereta Api Kejaksaan Daop III Cirebon. Evaluation and supervision need to be done, so the problem that become the obstacle in enforcement of regional regulation about non-smoking area can be effective so society become aware in using train as public transportation is more comfortable and avoided from the danger of cigarette smoke.

REFERENCES

Andi Hamzah, 2005, *Penegakan Hukum Lingkungan*, Sinar Grafika, Jakarta.

- Arief Sidharta, 2008, *Meuwissen Tentang Pengembangan Hukum, Ilmu Hukum, Teori Hukum, dan Filsafat Hukum*, Rafika Aditama, Bandung.
- Ahmad Kamil, 2008, *Kaidah-Kaidah Hukum Yurisprudensi*, Kencana, Jakarta.
- Bernard L. Tanya, 2010, *Teori Hukum (Strategi Tertib Manusia Lintas Ruang dan Generasi)*, Genta Publishing, Yogyakarta.
- Endang Sutrisno, 2007, *Bunga Rampai Hukum Dan Globalisasi*, Genta Press, Yogyakarta.
- _____, 2015, *The Local Governments Dilemma in Accomodating The National Regulation*, Lambert Academic Publishing, Saarbrucken, Deutschland, Germany.
- Imam Syaaukani, 2007, *Dasar-Dasar Politik Hukum*, Raja Grafindo Persada, Jakarta.
- Jimly Asshiddiqie, 2010, *Perihal Undang-Undang*, PT Raja Grafindo Persada, Jakarta.
- Jhon Rawls, 2011, *A Theory of Justice*, Pustaka Setia, Yogyakarta.
- Maria Farida Indrati S, 2007, *Ilmu Perundang-Undangan (2), Proses Dan Teknik Pembuatannya*, Kanisius, Yogyakarta.
- Munir Fuady, 2011, *Teori Negara Hukum Modern (Rechstaat)*, Refika Aditama, Bandung.
- Soerjono Soekanto, 1984, *Pengantar Penelitian Hukum*, UI Press, Jakarta.
- Soerjono Soekanto – Sri Mamudji, 1986, *Penelitian Hukum Normatif: Suatu Tinjauan Singkat*, Rajawali, Jakarta.
- Soetandyo Wignjosoebroto, 1995, *Sebuah Pengantar ke Arah Perbincangan tentang Pembinaan Penelitian Hukum dalam Pembangunan Jangka Panjang II*, BPHN Departemen Kehakiman, Jakarta.
- Satjipto Rahardjo, 2000, *Ilmu Hukum*, PT Citra Aditya Bakti, Bandung.
- Satjipto Raharjo, 2002, *Sosiologi Hukum (Perkembangan Metode dan Pemilihan Masalah)*, Genta Publishing, Yogyakarta.
- Shant Dellyana, 2004, *Konsep Penegakan Hukum*, Liberty, Yogyakarta.
- Soerjono Soekanto, 2004, *Faktor-Faktor yang mempengaruhi Penegakan Hukum*, Raja Grafindo Persada, Jakarta.
- Wukir Prayitno, 1991, *Modernitas Hukum Berwawasan Indonesia*, CV Agung, Semarang.
- Other Sources:
- Hasil Wawancara Petugas PT KAI yaitu Bapak Kris Biyantoro sebagai Manager Humas PT. KAI Kejaksaan Kota Cirebon Daop III, tanggal 20 April 2017.
- Hasil Wawancara dengan Pegawai PT Kereta Api Kejaksaan Kota Cirebon DAOP III Bapak Jamaludin, tanggal 20 April 2017.
- Hasil Wawancara dengan Bapak Kris Biyantoro Manager Humas PT KAI Daerah Daop III Kejaksaan Kota Cirebon, tanggal 20 April 2017.
- Hasil Wawancara dengan Anggota Dewan Perwakilan Rakyat Daerah Kota Cirebon Komisi C Bapak Jafarudin, tanggal 9 Mei 2017.

The Role Of Majelis Taklim Activities In The Building Spiritual Intelligence Of Members (Case Study: Majelis Taklim Fathimiyyah Samarinda)

Gamar Al Haddar,¹⁾ Ratna Khairunnisa²⁾, Afdal³⁾

¹⁾ *Widya Gama Mahakam University, Samarinda, Indonesia*
E-mail: gamar_haddar@yahoo.co.id

²⁾ *Widya Gama Mahakam University, Samarinda, Indonesia*
E-mail: nhananisa@gmail.com

³⁾ *Widya Gama Mahakam University, Samarinda, Indonesia*
E-mail: afdalpalaloi@yahoo.com

Abstract. This study aims to determine the role of majelis taklim fathimiyyah activities in building the spiritual intelligence of its members. This research was conducted by using qualitative method. Determination of individual sampling on the subject of the study was conducted by purposive sample and snowball technique. The main instrument in this study is the researchers. Information on the theme of the study was explored directly by researchers through participant observation techniques, interviews, literature and documentation. Validity of the data is tested for its credibility through extension of participation, observational persistence, triangulation, peer discussion and reference adequacy as well as transferability, dependability and validity. The results of this study summarize the following matters that the various activities that exist in majelis taklim activities, starting from weekly programs, monthly programs and annual programs support the development of spiritual intelligence of its members. Various activities include regular Islamic studies, reading yasin and tahlil every opening majelis, program khataman Al-Qur'an, silaturahmi, commemoration of the big days of Islam, Social Services, Tadabbur Alam, Seminars, workshops and others. Through this activity the result is that members of majelis taklim (1) are more careful in attitude and speech (2) are very enthusiastic in doing fastabiqul khairot (3) really in practicing Islam (4) very creative in life and not easy to despair and (5) Do the reflection for better self-improvement.

Keywords: Majelis Taklim and Spiritual Intelligence.

I. INTRODUCTION

Education is a conscious and well-planned effort to create an atmosphere of learning and learning process so that learners actively develop their self-motivation to have the spiritual power of religion, self-control, personality, intelligence, noble character, as well as the skills needed by him, society, nation and state. There are three educational paths, namely formal, non-formal and informal education.

Non-formal education is an educational path beyond formal education that can be implemented in a structured and tiered manner. Non-formal education is organized for community members who need educational services that serve as trainers, adders and supplements of formal education in support of lifelong education. Non-formal education serves to develop human potential with an emphasis on mastery of knowledge and functional skills and the development of professional attitudes and personalities.

Majelis taklim is a non-formal Islamic educational institution that has been known for a long time. The existence of majelis taklim has been recognized in the Law

of the Republic of Indonesia Year 2003 number 20 Chapter VI Article 26 paragraph 4 which explicitly mention the Assembly Taklim as part of non formal education. This indicates that the Taklim Assembly is an important part of the national education system.

Assembly Taklim can be interpreted as a place to carry out public lecture activities or Islamic teachings. This activity is mostly done in mosques, mosques or also in homes and elsewhere. Assembly Taklim is an institution of non-formal religious education, where the principle of activity is independence and self-help from each member.

In Islamic Encyclopedia, Majelis Taklim viewed from its characteristic in general is an institution conducting education or pengajian Islam, which has curriculum, teachers, members, methods, materials and learning objectives. Meanwhile, the Ministry of Religious Affairs stated that the Majelis Taklim is an Islamic study institution that has special features seen from the point of method and handbook used by members, teachers, taught material, means and objectives.

The curriculum of the Majelis Taklim, which is open, provides flexibility for the executor, to make positive innovations. Culturally, the Assembly Taklim is able to make a real contribution to development. As stated in the government regulation number 55 year 2003 article 23, majelis taklim aims to increase faith and devotion to Allah SWT and noble morality for its members. The people who believe in piety and noble this is the main capital of development. Qualified human resources, not only have the intelligence and physical health, which only touches the physical aspect, but also has spiritual and emotional intelligence concerning spiritual aspect. Here, the Assembly Taklim can make a real contribution in national development.

Intelligence that can bring to the welfare of the nation is Intellectual Intelligence (IQ), Emotional Intelligence (EQ) and Spiritual Intelligence (SQ). In the world of education in Indonesia today, certainly expected to be born to young generations who have three intelligences.

Basically between the three intelligences of Intellectual Intelligence, Emotional Intelligence and Spiritual Intelligence, there is a supreme intelligence that is spiritual intelligence. Spiritual Intelligence is the necessary basis for the functioning of intellectual intelligence and emotional intelligence. Spiritual Intelligence is the highest intelligence that integrates all the above intelligences and makes human beings truly intellectual, emotional and spiritual beings.

Being spiritual savvy means being aware that whoever we are and whatever our circumstances, we have a mission and a very important role of God during our life in this world. Through self-management can train and guide one to seek and find the purpose of life, and furthermore, by finding the purpose of life, is expected to give meaning in filling this life.

Majelis Taklim fhatimiyyah is one of the assemblies taklim located on Jalan Merdeka Samarinda. The implementation of this assembly goes around from house to house. The assembly has many interesting activities. In this case researchers want to do research on the role of majelis taklim fhatimiyyah in building the spiritual intelligence of its members

II. METHODS

The data to be collected and presented in this research is data about various programs of majelis taklim fhatimiyyah activities in an effort to develop the spiritual intelligence of its members ie in the form of data in the form of words, writing or pictures, not in the form of numbers. This is because the theme of research related to spiritual intelligence is something that is difficult to measure by numerical, high numbers do not necessarily indicating high spiritual intelligence. Thus, the method used in this study is a qualitative method.

Qualitative research method, according to Bogdan and Taylor in Moleong is a research procedure that produces

descriptive data in the form of written or oral words of people and behavior that can be observed.

The type of research is participative, meaning that researchers are involved in various activities associated with the object of observation. Researchers join a member of majelis Taklim fhatimiyyah education as well as involved in the committee of various activities majelis Taklim.

III. RESULT AND DISCUSSION

A. RESEARCH RESULTS

The activity of majelis taklim fhatimiyyah is a majelis activity which is held once every week. This activity is held at 2 p.m. until 5 p.m every Saturday. In this routine activity, members of majelis taklim fhatimiyyah carry out various routine activities. Members of majelis taklim fhatimiyyah until now in 2017 amounted to 42 people. Each member is a housewife who is domiciled in Jalan Merdeka Samarinda and its surroundings.

Activities of fathimiyyah assemblies that support the development of spiritual intelligence of its members include:

1. Weekly Activities Program

a. Recitation of routine yasin and tahlil

This activity is a mandatory activity that mothers do when they start their majelis. Based on the results of interviews with the chairman of the majelis fathimiyyah said that almost 90% of members memorized the recitation of surah yasin and tahlil are often read every week this.

b. Islamic studies

This activity is done after the reading of yasin and tahlil. Usually the study is provided by the ustadzah who is also one of the board members. Based on an interview with the mother of one of the members of the assembly, this activity gives additional scholarship in the field of Islam. The results of interviews with Mrs. Lili said that this activity adds insight understanding something from the do not know to know. Based on interviews with Mrs. Lili said that this activity makes the heart and soul to be calm and peaceful because it understands the true Islamic values.

Based on the observation, the study activity was done very well, active and effective. At the end of the study there is always a Q & A session between the members and the ustadzah. This adds to the mood of being more active.

c. Silaturahmi from house to house

Assembly is held every Saturday from 14.00 to finish. This activity conducted in the house members in turn. This house-to-house event adds to the close friendship and intimacy between members of the assembly.

2. Monthly Activity Program

a. Khataman Al-Qur'an together

At the beginning of each month, members of the assembly will get a passage from the Qur'an that must be read and completed. For example eka mother gets juz 7 then the next week gets juz 8 and so on. Each member reads the Qur'an in their own homes within the prescribed time limit. then the recitation of Al-Quran will be paid to the board. When the gathering gatherings will read the prayers of the Qur'an together. Because there is a division of juz that must be read

at home, this makes mothers always more diligent in reading the Qur'an. Based on the results of interviews with Lili, Mum said he was lazy to read Al-Quran but since the existence of this program more diligent in reading the Qur'an.

b. Social service

Social service activities are held every month. Assembly members can donate money, used suits, used staples and others. The collected results will be given to people in need. In addition, if there is a disaster such as fire and flood, each member will also be quick in providing assistance.

c. Seminar

Seminar activities are one of the activities held once a month. This activity is different from Islamic studies, because in the seminar study which discussed the theme about child issues, education, social and others, usually invited other resource persons. In this case the researcher has been a resource to provide studies on the importance of the role of parents for children.

d. Workshop

The workshop is held every 3 months with various themes. For example, on the 16th and 17th of December, 2017, VCO production training was held in cooperation with UPTD Applied Technology Plantation. This VCO training provides additional knowledge to the members of the assembly to be able to develop VCO results for either their own consumption or for sale. Women are very enthusiastic to participate in training. Some of the women who have attended this training activity make VCO at home and the result is it is sold.

Based on the results of the interview with the Mrs. Nurul, one of the VCO participants, she said that this workshop is useful because she usually bought the VCO. But, now she can make her own bias so save more expenses. Sewing practice workshops are also implemented, which are taught from how to measure, cut, make patterns and sew. This workshop is very useful for mothers.

Based on the results of interviews with Mrs. Ida said that this workshop provides additional knowledge field of sewing. After attending the sewing workshop held by majelis taklim then Mrs. Ida became more spirit to pursue this field.

e. Silaturahmi to the house of the Old Man

Hospitality is an activity that adds sustenance and prolongs life. One of the routine activities carried out every 2 months that is visiting the house members who are old and rarely follow the routine activities of the assembly. According to Mrs. Lili, this activity adds to the familiarity of the new members of the assembly with the old members.

3. Annual Activity Program

a. The commemoration of the Great Days of Islam such as: Mawlid of Prophet Muhammad SAW, Isra 'Miraj', Nuzulul Qur'an and others.

The commemoration of Islamic holy days like the Maulid of the Prophet is a routine activity that is always held every year. In this activity usually invites ustad or ustazah from

outside members to fill the event. Members of the assembly are involved as committee of activities. In the commemoration of the big days of Islam is seen togetherness and cohesiveness among members.

At the time of Ramadhan, it is also often held special study activities before the breaking fast together. In the evening, the Qur'an is filled with the tadarus together and followed by the Qur'an recitation.

b. Tadabbur of Nature

It is one of the activities held every 6 months. In this activity each member of the assembly may bring his family to join tadabbur of nature. One of the places she visited was the Lamaru beach in Balikpapan.

Based on the results of interviews with Mrs. Nurul said this activity is very interesting and useful to awaken ourselves to the life of the world is only temporary and hereafter is the real life. In nature tadabbur activities, members of the council get knowledge about the introduction of self and deeper introduction of Allah SWT.

B. DISCUSSION

In connection with the improvement of spiritual intelligence of majelis taklim members after attending various weekly, monthly and annual routine activities, based on observations, interviews as follows:

1. Be more careful in attitude and speech

Regular studies make members of majelis taklim avoid bad behaviors such as ghibah, gossip, jealousy and envy to each other, this is because they know the negative impact of the treatment. The members who always get the spiritual spirits increasingly organize themselves to be better to avoid the illness of heart and sin.

2. Enthusiastic members in fastabiqul khairat

Reminding others to goodness and preventing munkar, this is apparent in the routine activities of reading the Qur'an, reminding his friends who have not deposited his reading, besides that anggota also always remind every member of his majelis in baksos activities to help other people who need help such as helping victims of fire, flooded and others.

3. Real practicing the teachings of Islam

For example in fiqh ablution: the rules are well understood and practiced in everyday living properly included in the fiqh of prayer, tafhiz al janazah, the implementation of Hajj for whom able and wearing hijab properly and correctly according to Islamic Syariah. The sincerity of members in carrying out these Islamic values is very needed. Also related to maintaining silaturahmi, members are also very enthusiastic to come to visit together to visit the old members of the assembly to get additional scholarship for the sake of the assembly progress.

4. Very creative in life and not despair of grace and grace of Allah SWT

This was seen when a seminar and workshop of 95% members attended the event and attended the training seriously. Workshops that are held are usually related to Household Industries (IRT).

In addition, the members of majelis taklim also often bring their wares in the study. After the recitation is completed

they offer a variety of merchandise, and this is where there is complementary activity between buyers and sellers needs.

5. Do reflection for better self-improvement

This is seen in the activities of nature tadabbur, each member blend with nature and grace and affection of Allah SWT to know more deeply the blessings of God's favors that have been felt and enjoyed.

IV. CONCLUSIONS

Based on the above discussion can be concluded that the activities in the majelis Taklim Fhatimiyyah i.e. weekly, monthly and annual activities can help to develop the spiritual intelligence of its members.

REFERENCES

- Agustian, Ary Ginanjar. 2007. *Rahasia Sukses Membangun Kecerdasan Emosi dan Spiritual ; ESQ; The ESQ Way* 165, 1 Ihsan 6 Rukun Iman dan 5 Rukun Islam. Jakarta : Arga, cet. ketiga puluh tiga.
- Agustian, Ary Ginanjar. 2007. *Rahasia Sukses membangkitkan ESQ Power sebuah Inner Journey melalui Al-Ihsan*. Jakarta : Arga, cet. kesebelas
- Hasan, Muhammad Tholchah. 2006. *Dinamika Kehidupan Religius*. Jakarta : Listafariska Putra, cet. keempat
- Moleong, Lexy J. 2000. *Metodologi Penelitian Kualitatif*. Bandung : PT. Remaja Rosda, cet. kesebelas
- Muhammad, Fery. 2008. *Islam is The way of Life, Sebuah Perenungan Mencari Makna Hidup*. Yogyakarta : Ananda Publisng, cet, pertama
- Sagala, Syaiful. 2006. *Administrasi Pendidikan Kontemporer*. Bandung : Alfabeta, cet ketiga.
- Sentanu, Erbe. 2008. *Quantum Ikhlas*. Jakarta : Pt Gramedia, cet. kesepuluh
- Shaleh, Abdul Racman. 2005. *Pendidikan Agama dan Pembangunan Watak Bangsa*. Jakarta : PT Raja Grafindo Persada, cet. pertama.
- Shihab, M. Quraish. 2006. *Tafsir Al-Misbah*. Jakarta : Lentera Hati, volume 13
- Sugiyono. 2007. *Metode Penelitian Pendidikan*. Bandung : Alfabeta, cet. kedelapan.
- Syah, Muhibbin. 2007. *Psikologi Pendidikan dengan Pendekatan Baru*. Bandung : PT Remaja Rosda, Ed Revisi cet. Kedelapan
- Triwiyanto, Teguh. 2014. *Pengantar Ilmu Pendidikan*. Jakarta : Bumi Aksara.
- Zohar, Danah & Marshall, Ian. 2007. *SQ ; Kecerdasan Spiritual*. Bandung : Mizan, cet. IX.
- Zuriah, Nurul. 2006. *Metodologi Penelitian Sosial dan Pendidikan*. Jakarta : Bumi Aksara.

Advancing Corporate Social Responsibility of Mining Enterprises at East Kalimantan to Attain Sustainable Environment

Mahendra Putra Kurnia¹⁾, Purwanto²⁾, Siti Kotijah³⁾, Suparto Wijayo⁴⁾, Supomo⁵⁾, Ine Ventyrina⁶⁾

¹⁾ Faculty of Law, University of Mulawarman, Samarinda, Indonesia
E-mail: mp_sheva@yahoo.com

²⁾ Faculty of Law, University of Mulawarman, Samarinda, Indonesia
E-mail: pureconsultant@gmail.com

³⁾ Faculty of Law, University of Mulawarman, Samarinda, Indonesia
E-mail: skkotijah8@gmail.com

⁴⁾ Faculty of Law, University of Airlangga, Surabaya, Indonesia
E-mail: supartowijoyo@fh.unair.ac.id

⁵⁾ Pharmacy, Pharmacy Academy of Samarinda, Samarinda, Indonesia
E-mail: fahmipomo@gmail.com

⁶⁾ Faculty of Law, University of Mulawarman, Samarinda, Indonesia
E-mail: ineventyrina@ymail.com

Abstract. Industrialized economic activities have been the foremost ground of exaggerating sustainable environment disturbances at East Kalimantan. Their position is based upon scientific, economic, and ethical arguments. Regarding to mineral extracting industries at East Kalimantan, there are multifarious mining enterprises must have responsibilities to preserve sustainable environment towards Corporate Social Responsibility practices. This paper proposes corporate social responsibility financial of mining enterprises at East Kalimantan that can counteract sustainable environment interferences at East Kalimantan based on Indonesian company regulations and Indonesian Mining Law.

Keywords: Corporate Social Responsibility, Mining Company, Sustainable Environment

I. INTRODUCTION

Environmental protection has been recognized to be “in the public interest” and external to private life. However, the roles of sectors have been swiftened, with the private sector becoming an active role in environmental protection. Many governments and businesses have realized that environmental protection and economic growth are always in line.

Since World Commission on Environment published the Brundtland Report in 1987, business and management scholars have been grappling with the question of how and why corporations should assimilate environmental concerns into their business management. It has been accepted by many companies that they must not do harm to the environment. The environmental aspect of CSR results in the duty to cover the environmental implications of the company's operations, products and facilities; eradicate pollutants and emissions; enlarge the efficiency and productivity of its resources; and minimize practices that

might adversely affect the enjoyment of the country's resources by future generations. In the emerging global economy and revolution of technology information and media, company business practices can be easily recognised based their environmental stewardship. Partners in business and consumers want to know what is inside a company. This transparency of business practices means that for many companies, CSR, is no longer a luxury but a requirement.

It has been recognised concept of sustainable development. The global purposes of sustainable development cover the reduction of poverty level, providing health facilities for all, social equality and meeting the needs of society while living within the Earth's ecological capacity and without undermining the needs for future generations. The concept of sustainable development in the business level results in corporate sustainability applying the necessity of a corporate's direct and indirect stakeholders with no compromise of its ability to meet the necessity of future stakeholders (Dyllick and Hockerts, 2002). Both Corporate sustainability and corporate social responsibility (CSR) as

non obligatory activities demonstrates the inclusion of social and environmental concerns in business management and in connections with stakeholders (van Marrewijk, 2003). Meanwhile both concepts have divergent meaning. The concept of corporate sustainability was often connected with the environmental responsibility concern of business and CSR with the social responsibility focus. However, common research explains that these two concepts related to their shared environmental and social involved (Montiel, 2008).

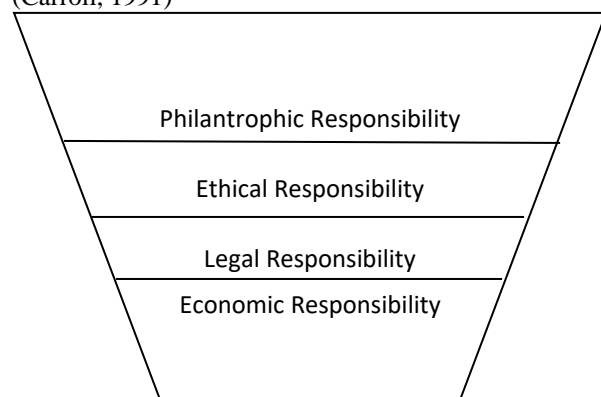
There are many attentions for the implementation of The Corporate Social Responsibility (CSR) (Hill, R.P., Ainscough, T., Shank, T. and Manullang, D., 2007). An increasing number of studies, both in the practitioner and academic press, show that firms are becoming more conscientious of the effects of their socially responsible behaviour. Educated owners understand the importance of CSR. Increasingly, investors seek socially responsible firms and not just the highest current financial returns. There must be a long-term purpose of any corporations to ensure sustainable economic benefit due to the positive implications of CSR (Smith, A.D., 2007). The primary objective of the study is to assess the perspective and concerns of local mining companies at East Kalimantan related to environmental aspects of CSR activities.

The purpose of this thesis is to explore how the extractive industry in general and companies in the metals and mining industry in particular practise CSR and how this management practice can be developed for sustainable environment.

II. METHODS

This study is correlation descriptive and literature research which accurately describes the facts and regulations and relation among studied issues. Carroll (1979), who was the first to introduce the concept of CSR, made a synthesis of the basic principle of social responsibility, the concrete issues for which social responsibility exists and the specific philosophy of response to social issues. Carroll suggested that the obligations that business has to society must embody economic, legal, ethical and philanthropic categories. He included these aspects in a “pyramid of corporate social responsibility” (Carroll, 1991), see Figure 1.

Figure 1. The pyramid of corporate social responsibility (Carroll, 1991)



III. RESULT AND DISCUSSION

A. DEFINITION OF CSR

The concept of Corporate social responsibility is commonly used to describe the obligations and responsibilities that a company should have for its stakeholders. There are much attentions toward the social responsibility concerns (Pedersen, E.R.G., 2011) but there is no precise definition of CSR mainly because the concept is doubtful (Lantos, G.P., 2001) and has been defined in many perspectives (Dahlsrud, A., 2006).

Herzig and Moon (Herzig, C. and Moon, J., 2013), discusses that CSR is usually connected with: business obligation for society (remunerate for negative outermost, provide contribution to welfare) and responsibility to society (accountability); reliable business practice (to secure market strength and integrity); and the management of the corporation-society interface. Meanwhile opposite opinion Hill et al. (Hilson, G. and Murck, B., 2000) explains that corporate social responsibility is the economic, legal, moral, and philanthropic corporate actions results in the quality of life of relevant stakeholders. Each of these constituencies, both individually and collectively, forms opinions about organizations through perceptions of firms' corporate social performance, which is characterized as summary judgments about CSR activities used by investors to make economical considerations.

The European Union described corporate social responsibility as a concept based on voluntary actions whereby companies collaborate social and environmental concerns in their business practices and in their mutual actions with their stakeholders. Legal expectations fulfillment and going beyond compliance and investing “more” into human resources, the environment and the relations with stakeholders results in socially responsible corporate (European Commission, 2001).

The World Business Council for Sustainable Development outlined the concept of “CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families, as well as of the local community and society at large...”. Finally, the European Union defines CSR as “... the concept that an enterprise is accountable for its impact on all relevant stakeholders. It is the continuing commitment by business to behave fairly and responsibly and contribute to economic development while improving the quality of life of the work force and their families as well as of the local community and society at large...”. Such definitions are welcome for multiperspective arguments, regarding on the culture in which they are to apply.

Utting (2003) emphasized that it is important to consider the wider implications of CSR development, instead of making

estimation of the outcome, purpose and implementation of specific CSR policies and institutional adjustments. There are two major challenges regarding on implementing CSR to create more significant contribution to development. First, it requires better integration of voluntary approaches and legal requirements as well as government regulation, rather than the present situation where voluntary adjustments are often considered as an alternative to legal instruments. Second, the CSR agenda needs to become more “south-centered”.

Slack (Slack, K., 2012), concluded that there is no commonly accepted definition for CSR in the extractive sector. Generally, corporates use the term or related ones such as “sustainability” to refer to involvement in favour of environmental and human rights basis. Providing benefits to the local environment and local communities also tends to be part of extractive industries companies’ definition of CSR. Recently, some mining companies published annual CSR or “sustainable” reports that emphasize these benefits and steps taken to protect the environment.

There are common preference of private sector for the flexibility of self-designed voluntary basis (UNCTAD, 1999). However Porter (Porter, 2000) suggested that active innovations to reduce the total cost of a product or improving its value should be provided in many cases of properly designed legal environmental standards.

Since the 1980s, there has been a considerable shift considerations regarding on improving corporate performance on social and environmental concerns (UNRISD, 2002). An initial emphasis on strict governmental regulations has ceded ground to corporate self-regulation and voluntary initiatives.

CSR is often defined as the integration of social and environmental concerns in a company’s business operations and its interactions with stakeholders on a voluntary basis (Dahlsrud, 2008). CSR has a long and wide-ranging history. The Industrial Revolution, and the concern of emerging businesses to care for their employees and help them to become more productive, can be seen as the starting point. The 1950s known as the ‘philanthropic’ era in which companies donated to charities. The period 1953-67 was classified as the ‘awareness’ era, because it was in this period that businesses became much more aware of their overall responsibilities and involvement in community affairs. The period 1968-73 was termed the ‘issue’ era, because here companies began to focus on specific environmental issues, such as urban decay, racial discrimination and pollution problems. Finally, in the ‘responsiveness’ era, companies began to address CSR issues in a much more serious way (Carroll, 2008).

The Role of Mining In The Economy of East Kalimantan

Kalimantan (also known as Borneo) is the largest island in Indonesia, and the 3rd largest in the world, with a total land area of 743,330 sqkm. The trademark of the island is extensive rainforest cover, although deforestation and exploitation is rapidly shrinking the “green” area. East Kalimantan province is the 3rd largest province in Indonesia by area, with 127,265.52 sqkm of land and 25,656 sqkm of marine area. Demographically, East Kalimantan is not densely populated, with only 19 people per sqkm (ranked 30 out of 33 provinces in Indonesia). This is mainly because of the lack of basic infrastructure and other essentials. As a comparison, the capital city Jakarta has the highest density with 15000 people per sqkm.

East Kalimantan is the third largest province in Indonesia by area, and has the second highest per capita GDP in Indonesia after Jakarta. This commodity -rich province (with a relatively small population) is also the sixth largest contributor to national GDP.

East Kalimantan produces more than 55% of Indonesia’s thermal coal output. Mining and minerals account for 50% of East Kalimantan’s GDP, and hence, the weak coal and oil prices is having a significant impact on its economy; 1Q15 GDP contracted by 1.32% y-o-y.

East Kalimantan is a microcosm for many of the world’s development dilemmas, with its leaders grappling with the challenge of how to bring millions of people out of poverty without destroying the natural resources that local people and the local economy depend upon. It is a province on the frontline of sustainable development – rich in forests, as well as huge coal, oil and gas reserves, and home to hundreds of thousands of village communities and endangered species such as orangutans.

East Kalimantan’s economy is highly dependent on its natural resources, particularly coal, oil and natural gas. Besides being the sixth largest contributor to national GDP, this commodity rich province (and relatively small population) has the second highest GDP per capita in Indonesia after Jakarta.

CSR Practices of Mining Companies at East Kalimantan to Attain Sustainable Development

The environmental sustainability has been important part of the eight Millennium Development Goals (MDGs). The objectives are to a) unify the principles of sustainable development into country regulations and programmes; converse environmental resources casualties, b) improve sustainable access to safe drinking water by half the proportion of global population and c) achieve significant enhancement in lives of at least 100 million slum dwellers, by 2020. Governments sector must have commitment of long term national programmes in promoting CSR initiatives as a complement to their ongoing environmental and social conducts (Mazurkiewicz, 2004).

Governance assistances can be integrated into national environmental program. There are three-part approach of governments plans related with the problem: (i) inform and engage business in dialogue and negotiations concerning voluntary initiatives, and institutionalize this process; (ii) embrace more environmentally responsible business models by providing incentives for and assistance to corporates; and (iii) enlarge monitoring of environmental conditions and enforce sanctions. More precisely providing financial support for research, leading campaigns, information gathering and scattering, training, and improving awareness, to stimulate the private sectors (Mazurkiewicz 2003).

The numerous high-profile corporate scandals and criticism of multinational companies around the world illustrate the necessity for CSR (Asif et al., 2013, Grafström et al., 2008). In the mid-1990s, criticism was directed against western corporations and their production in developing countries. The sportswear company Nike was strongly criticized for the sweatshop conditions at its overseas suppliers (Zadek, 2004). Another well-known case is the conflict between Shell and Greenpeace, when Shell decided to dump the Brent Spar oil storage platform in the North-East Atlantic (Grolin, 1998). A more recent example is the increased interest in ethical standards and CSR following the British Petroleum Deepwater Horizon oil catastrophe in the Gulf of Mexico in 2010 (Balmer et al., 2011). New demands from the civil society urge companies to address and shoulder more responsibilities (Grolin, 1998), which has led to CSR becoming a high profile issue in industries in different parts of the world (Hamann, 2003). Major international organizations, such as the United Nations (UN), the International Labour Organization (ILO), the World Bank and the Organization for Economic Co-operation and Development (OECD) promote and monitor CSR initiatives (Benn and Bolton, 2011). Here, reporting guidelines and standards have often been adopted (Hamann, 2003, Jenkins and Yakovleva, 2006, Perez and Sanchez, 2009, Vitró and Comajuncosa, 2010).

The potential for CSR is considerable, although hitherto there has been a very limited focus on CSR practice and how it can benefit a company's core business operations. Also, very little research has been conducted on the interface between more visionary statements and the actual reporting of CSR performance. If CSR practice is to be studied internally, an industry that practices CSR, such as the extractive industry, needs to be the research object. Many CSR initiatives, guidelines, standards and conceptual frameworks are available, but the question is whether and how these initiatives are practised and whether there is room for improvement in the sense of creating more sustainable business.

CSR is especially important in the mining sector. Population growth, the speed of urbanization in Asia and the more

sophisticated requirements of the developed world have led to an increased demand for minerals and metals (ICMM, 2013). Although these activities may be good for the local economy, mining can have a very negative impact on the local environment. When it comes to the safety of workers (Jenkins, 2004), the accident and ill-health record of the mining industry makes it one of the most hazardous sectors, particularly with regard to the dust and noise associated with rock blasting, artificial air and light supplies, harmful gases, ergonomic hazards and so on (Hermanus, 2007). In addition, local communities often experience social problems as a result of the mining activities. One example of this is the exploitation of indigenous people (Peck and Sinding, 2003).

Although CSR is on the global agenda, the importance that is attached to it differs from country to country (Idowu and Leal Filho, 2009). For example, an international organization might be faced with different aspects of CSR in its countries of operation. What is included in the concept of CSR in one country may have little or no significance in another. Matten and Moon (2008) compared the United States with Europe and identified differences such as the power of the state, governments' engagement in economic and social activities, financial sources, education and labour systems.

Carrying out social responsibilities normatively is a moral obligation for any type of company. When companies as a new community intervene in local communities, it is imperative to adapt and contribute, because its existence has had both positive and negative impacts.

Not only focusing on the normative aspect, CSR has now been regulated in several binding regulations in order that 'certain companies' are required to carry out their social responsibilities. There is a long process in relation to the history of the emergence of regulations relating to CSR or programs that were originally identical to the term Community Development (CD), Partnership and Community Development Program (PKBL).

Currently, based on author's records, there are 7 (seven) regulations related to corporate social responsibility both in the form of laws, government regulations, and ministerial regulations. Beyond that, local governments also publish a variety of products similar to CSR regulations. At least more than 50 districts / municipalities in Indonesia have issued Province Regulations of CSR. Some regions are capable of implementing local regulations, and only a small proportion of the regions have an impact on the existence of CSR regulations.

To make it easier to understand CSR regulations and be able to apply them according to the type, scope, and needs of the company. The author describes 5 (five) regulations of CSR at Indonesia, if it is understood, the company is expected to refer to which rules are binding, as well as a control for

others who will make CSR as a tool of interest among certain stakeholders. For the central and local governments, by understanding the existing rules, it is not expected to create new regulations that are potentially contrary to the above regulation, or divert the responsibility of government development to the company.

The seven regulations related to corporate social responsibility in Indonesia as follows:

1. Law number 40 year 2007 regarding Limited Liability Company ("Company Law ") and Government Regulation number 47 year 2012 regarding Corporate Social and Environmental Responsibility of Limited Liability Company (**"PP 47/2012"**)

Regarding the Social and Environmental Responsibility, stipulated in Article 74 UUPT and its explanation. This arrangement applies to the company. Based on Article 1 number 1 of Indonesian Company Law, Limited Liability Company is a legal entity which has capital alliance, established based on the agreement, engages in business activities with the authorized capital wholly divided into shares and meets the requirements stipulated in this Law and its implementing regulations.

According to Article 1 Sub-Article 3 of Indonesian Company Law, Social and Environmental Responsibility is the corporate's commitment to participate in sustainable economic development in order to improve the quality of life and the beneficial environment, both for the company itself, the local community, and the community at large.

Article 74 of the Indonesian Company Law basically stipulates the following matters:

- a. This Social and Environmental Responsibility is required for a company that carries out its business activities in the field and / or related to natural resources.

Referred to as "a company that carries out its business activities in the field of natural resources" means a company whose business activities are managing and utilizing natural resources.

Whereas "a company that carries out its business activities related to natural resources" is a company that does not manage and does not utilize natural resources, but its business activities have an effect on the function of natural resource capability.

- b. This Social and Environmental Responsibility is a corporate liability that is budgeted and calculated as the cost of the company whose implementation is carried out with due attention to decency and fairness.

- c. Regarding sanctions, it is said that the company that does not perform the obligations of Social and Environmental Responsibility will be subject to sanctions in accordance with the provisions of the relevant legislation.

In Article 4 of Regulation 47 year 2012, it is said that the Social and Environmental Responsibility is executed by the Board of Directors based on the company's annual work plan after obtaining approval from the Board of Commissioners or General Meeting of Shareholders ("GMS") in accordance with the articles of association of the company. The company's annual work plan contains the activities and budget plans required for the implementation of Social and Environmental Responsibility.

The implementation of the Social and Environmental Responsibility is contained in the company's annual report and accountable to the GMS (Article 6 of Regulation 47 of 2012).

2. Law number 25 Year 2007 regarding Investment ("Indonesian Investment Law")

Article 15 letter b of Indonesian Investment Law stipulates that every investor is required to implement Social and Environmental Responsibility. The meaning of Social and Environmental Responsibility pursuant to the Elucidation of Article 15 Sub-Article b Indonesian Investment Law is the responsibility attached to each investment company to keep creating a harmonious, balanced, and appropriate relationship with the environment, values, norms and culture of the local community.

While the meaning of investors is individuals or business entities that make investments that may be domestic investors and foreign investors (Article 1 number 4 of Indonesian Investment Law).

In addition, Article 16 of Indonesian Investment Law also provides that every investor is responsible for preserving the environment. It is also a part of Social and Environmental Responsibility.

If the investor does not perform its obligations to implement the Social and Environmental Responsibility, then based on Article 34 of Indonesian Investment Law, investors may be subject to administrative sanctions in the form of:

- a. written warning;
- b. restrictions on business activities;
- c. freezing of business activities and/or investment facilities; or
- d. revocation of business activities and/or investment facilities.

In addition to being subject to administrative sanctions, investors may also be subject to other sanctions in

accordance with the provisions of legislation (Article 34 paragraph (3) of Indonesian Investment Law).

3. Law number 32 year 2009 regarding Environmental Protection and Management ("Environmental Law")

Regarding on Article 68 of Indonesian Environmental Law, every person conducting business and / or activity is obliged to:

- a. provide information related to the protection and management of the environment properly, accurately, openly and in a timely manner;
- b. maintaining the sustainability of environmental functions; and
- c. comply with the provisions on environmental quality standards and / or standard criteria for environmental damage.

4. Regulation of the State Minister for State-Owned Enterprises number PER-05 / MBU / 2007 Year 2007 regarding State-Owned Enterprises Partnership Program with Small Business and Community Development Program as lastly amended by Regulation of the Minister of State-Owned Enterprises. PER-08 / MBU / 2013 Year 2013 regarding on The Fourth Amendment to The Regulation of The Minister of State Owned Enterprises Number PER-05 / MBU / 2007 concerning Partnership Program of State-Owned Enterprises with Small Business and Community Development Program ("Permen BUMN 5/2007").

The regulation stipulates the obligations of the Company ("Persero"), Public Corporation ("Perum"), and Limited Public Company ("Persero Terbuka").

Based on Article 2 of Permen BUMN 5/2007, "Persero" and "Perum" are required to implement BUMN Partnership Program with Small Business and Community Development Program. Meanwhile the Public Persero can implement BUMN Partnership Program with Small Business and Environmental Development Program based on the Minister of Permen BUMN 5/2007 stipulated based on the resolutions of the GMS.

BUMN Partnership Program with Small Business is a program to improve the ability of small-scale enterprises to become strong and independent through the utilization of state-owned funds (Article 1 number 6 BUMN 5/2007). While the Community Development Program is a program of community social empowerment by state-owned enterprises through the utilization of state-owned funds (Article 1 point 7 BUMN 5/2007).

5. Law number 22 year 2001 regarding on Oil and Natural Gas ("Indonesia Oil and Natural Gas Law")

Upstream business activities carried out by a Business Entity or Permanent Establishment based on Cooperation Contract with the Implementing Body shall contain the main provisions of which one of the provisions concerning the development of the surrounding community and the guarantee of the rights of indigenous peoples (Article 11 paragraph (3) letter (p) Indonesin Oil and Natural Gas Law).

In addition, Article 40 paragraph (5) of Indonesia Oil and Natural Gas Law also states that Business Entities or Permanent Establishments conducting Oil and Gas business activities (upstream business activities and downstream business activities) are responsible for developing the environment and local communities.

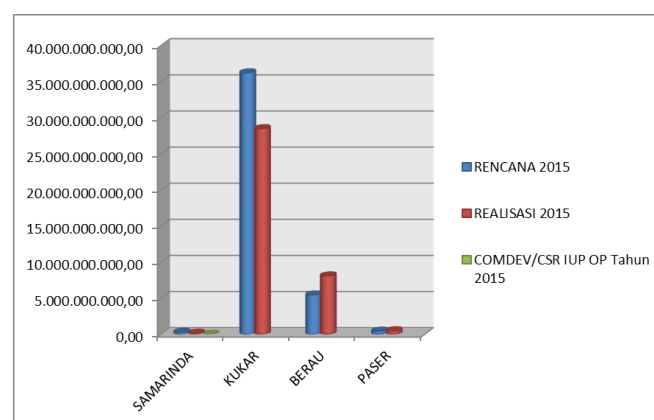
Based on existing regulations, financial contribution of CSR implementation by mining companies in East Kalimantan to address sustainable environment as shown in Table 1 and Chart 1.

Table 1. Financial contribution of CSR of Mining Companies.

No	District / City	Budget Plan (year 2015)	Budget Realization (year 2015)
1	City Samarinda	Rp.300.000.000	Rp. 151.900.000
2	District Kutai Kartanegara	Rp.36.209.479.821	Rp. 28.478.501.792
3	District Berau	Rp.5.451.400.000	Rp. 8.087.033.946
4	District Paser	Rp.440.040.555	Rp.493.219.000
COMDEV		Rp.42.400.920.376	Rp.37.058.754.738

Source: Annual Report of Department of Mineral and Coal Mining of East Kalimantan year 2015.

Chart 1. Financial contribution of CSR of Mining Companies.



Source: Annual Report of Department of Mineral and Coal Mining of East Kalimantan year 2015.

Whatever the nature of the commitment, most companies follow a similar series of steps when addressing their impact on the environment:

1. Corporate Environmental Policy: Companies committed to reducing their environmental impact usually create a set of environmental principles and standards, often including formal goals. At minimum, most such statements express a company's intentions to respect the environment in the design, production and distribution of its products and services; to commit the company to be in full compliance with all laws and go beyond compliance whenever possible; and establish an open-book policy whereby employees, community members and others can be informed of any potentially adverse effects the company might have on the environment.

2. Environmental Audit: Before a company attempts to reduce its impact on the environment, it is essential that it first gains a full understanding of it. For most companies, this usually involves some kind of environmental audit. The goal of audits is to understand the type and amount of resources used by a company, product line or facility, and the types of waste and emissions generated. Some companies also try to quantify this data in monetary terms to understand the bottom-line impact. This also helps to set priorities as to how a company can get the greatest return on its efforts.

3. Employee Involvement: Leadership companies recognize that to be effective, an environmental policy needs to be embraced by employees throughout the organization, not just those whose work is related to the environment. To do that, companies engage in a variety of activities, especially education, to help employees understand the environmental impact of their jobs and to support their efforts to make positive changes. Some companies go further, helping employees become more environmentally responsible throughout their daily lives, helping them build a true.

4. Green Procurement: To help ensure that their products and processes are environmentally responsible, many companies seek to buy greener products and materials from their suppliers. Some companies participate in buyers' groups in which they leverage their collective buying clout to push suppliers to consider alternative products or processes.

5. Green Products: Products themselves may be made more environmentally friendly, with regard to, for example, the control of emissions, noise, reduced health and safety risks, and reduced energy requirements.

IV. CONCLUSIONS

The community within which mining companies operate is one of the essential stakeholders of the company and for that matter mining companies must be sure to understand very well the community's views and concerns of the CSR activities that companies offer to their communities. It is

recommended that mining firms should occasionally, but frequently move forward to implement programmes of CSR to preserve environment in relation with the operations of the company.

Although the coal mining activities give benefits on economy and social sector, there should be a sustainable strategy and management to countermeasure the negative impact of the coal mining activities on the environment sustainability. Thus, further environment study and sustainable mining management should be done. Mining companies must come out with clear guidelines on CSR, so that it takes care of the critical needs of the sustainable environment. Investment in CSR benefits the company in the long run.

ACKNOWLEDGMENT

The author would like to thanks Department of Mineral and Coal Mining of East Kalimantan for providing the data need for the study.

REFERENCES

- [1] Carroll, A. B., The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholder. *Business Horizons* 34, 39-48, 1991.
- [2] Dahlsrud, A., *How Corporate Social Responsibility Is Defined: An Analysis of 37 Definitions*. John Wiley & Sons, Ltd., and ERP Environment, 2006.
- [3] Montiel, I. "Corporate social responsibility and corporate sustainability". *Organization & Environment* 21, pp.245-269, 2008.
- [4] Dyllick, T. & Hockerts, K. "Beyond the business case for corporate sustainability. *Business Strategy and the Environment* 11", pp. 130-141, 2002.
- [5] Herzig, C. and Moon, J., "Discourses on Corporate Social Ir/Responsibility in the Financial Sector", *Journal of Business Research*, 66, pp.1870-1880, 2013.
- [6] Hill, R.P., Ainscough, T., Shank, T. and Manullang, D., "Corporate Social Responsibility and Socially Responsible Investing: A Global Perspective", *Journal of Business Ethics*, 70, pp. 165-174, 2007.
- [7] Hilson, G. and Murck, B., "Sustainable development in the mining industry: clarifying the corporate perspective", *Resources Policy*, Vol. 26 No. 4, pp. 227-238, 2000.

- [8] Lantos, G.P., “The Boundaries of Strategic Corporate Social Responsibility”, *Journal of Consumer Marketing*, 18, pp.595-632, 2001.
- [9] Pedersen, E.R.G., “All Animals Are Equal, But ...: Management Perceptions of Stakeholder Relationships and Societal Responsibilities in Multinational Corporations”, *Business Ethics: A European Review*, 20, pp.177-191, 2011.
- [10] Smith, A.D., “Making the Case for the Competitive Advantage of Corporate Social Responsibility”, *Business Strategy Series*, 8, pp.186-195, 2007.
- [11] van Marrewijk, M. “Concepts and definitions of CSR and corporate sustainability: Between agency and communion”. *Journal of business Ethics* 44, 95-105, 2003.

Harmonization's As A Way To Actualize An Establishment Of Good Legislations Within Indonesia's Legislation System

Mia Kusuma Fitriana

¹⁾ *Ministry of Law and Human Right, Samarinda, Indonesia*
E-mail: miakusuma2001@gmail.com

²⁾ *Second Institution, University, City, Country*
E-mail: xxx@yyy.zzz

Abstract. Recently Indonesia's Legislation facing problems of so many legislation products being revoked. In 2016 even more than 3000 (Three thousand) were be alienated. Start from what happened in Indonesia's legislation as mentioned before the aims of this study is to evaluate how this revocation can be happened though formal procedures of forming legislation had been done. Because revocation toward legislation product is not merely economically loss but also a setback reaching out the purpose of decentralization in Indonesia. These shall not be happened if only the harmonization within Indonesian legislation mechanism is functioning well. Since that a good quality of a legislation product is produced by a good mechanism as well. Therefore, through normative legal research that emphasized on statute, conceptual, and comparative law approach this research conducted to search the main problem within harmonization mechanism thus can resolve it in frame of Indonesia's Legislation system. The study reveals that the harmonization mechanism is there, regulated and might be conducted however it wasn't going as it should be. Thus this study will be useful for not only Indonesia's legislation system but may be contributed in making efficiency for legislations budget.

Keywords: Harmonization, Legislation, A Good Legislation System.

I. INTRODUCTION

Indonesia's Legislations recently facing a phenomenon whereas so many of them being revoked either through Judicial Review or previously it also can be revoked with executive review. However, authorities of executive review as one of the revocation mechanism is being confined already due to the Constitutional Court decision relate to executive authority toward its review. These revocations are shown that it is not easy to for authorities and any other parties involved in it to understand provisions properly. This phenomenon had caused the legislations is hard to be effectively, efficiently and beneficially implemented. This could be happened because in its making process harmonization was not done.

Reviewing these from regional autonomy point of view, how complicated the implementation of regional autonomy resulted of the legislations revocation especially local law products called Local Regulations (Peraturan Daerah /PERDA) and Regulations of The Regional Head (Peraturan Kepala Daerah/PERKADA). During 2016 there were 3.143 legislations was revoked. 2032 of 3.143 is Local Law Products (PERDA and/or PERKADA) and 1111 Regulations/Decisions of Minister of Home Affairs. [1]

Revocation towards local law products was done because those are not in accordance or overlapping either vertically or horizontally with other legislations. There are some other factors that resulted it revocations the substance for instance, it contains discriminations in many spheres such as

discrimination over it tribes, religion, and race. Local law products that contain any substances violating human rights and considered contradicting to public interest or decency also can be revoked. Contradicting to public interest as mentioned before means in a form of disturbances among societies harmony, access to public services, tranquility and decency, economic activities purposing to increase society prosperities. However, based on Minister of Home Affairs delivered speech related to 3.143 legislations revocation; other than those mentioned above, those revocations also be done based on the consideration that those legislations inhibit investment and its permission in region. Some of those revocations are not overall, it could be some article only that contain substances caused resulting revocation as mentioned before.

Revocation towards local law products through Judicial Review mechanism is contributing a significant effect within Indonesia's Legislation system generally and local autonomy and co-administration work especially. As it is mentioned in Indonesian Constitution 1945 that Local Government reserved the right to enact PERDA and other regulations in order to carry put it local autonomy and co-administration work, beside it is as other form of local independence of state and governance administrations. [2]

Therefore, it revocations affecting Indonesian's Legislation System. Those revocations shown a bleak picture and low quality of legislations system in Indonesia recently. It also a picture of a repetition of the problem during local autonomy

era, since almost every year these problem continue to happen.

Revocation towards PERDA and other local regulations obviously become resistor of local autonomy and co-administration work realization in region. In which PERDA is a tool of local policy to reach its main purposes improving local communities' welfare through continuously local development. Moreover, PERDA is an implementing regulation of higher legislations and a channeling aspiration of local society as well. PERDA is a transformation tool of changes in a region. In this function PERDA contributes whether the local government and development is successful or not and as the harmonization of many interests at the same time. When a revocation took place then the question will be "how PERDA's role can be functioned in reaching out the purpose of decentralization and deconcentration?." Since the revocation of local law product mostly related to retributions and taxes, then it is takes effect to its collection that has been ran. When the PERDA is revoked then its collections cannot be done any longer, because PERDA is the legal base to collect it. Thus the collection should be stopped immediately unless the new one has been made or its amendment has made. If it is so then the collections shall be done regard to its new PERDA or its amendment. In the meantime, the changes of collection system are not an easy and fast way to be done since it's correlated with the new mechanism that must be adjusted. When this thing happened then it will postpone region income that comes from taxes and/or retribution in certain period of time that in the end will impact the region income and operational necessities resulted from region spending.

One of the real impact toward revocations of PERDA is shown weakness of government supervision to it and lack of cooperation between central and regional government. It was proven with the revocation of 3.143 PERDA within a short period of time. Not only those, people trust to its government and other legislators also occurs because of that. People opinions will lead to judgement of their works. How could the legislation (PERDA and PERKADA in this case) that had been made and formed through a procedure regulated in the law and use a lot of money come from state budget but it could be revoked easily. This can be happened because it's been a common knowledge of society that the purpose of PERDA is to develop its region based on local wisdom of related region and the implementation of local autonomy, thus this regulation will not disturb local social condition in any different region. Through this way then the economic and social welfare will be more progressing and developing with the existence of PERDA that guarantee the enactment of local autonomy. Those revocations may cause any society distrust toward local legislators and other regulations maker. Using such a big amount of state budget and takes long processes and even society it not reaching welfare yet but at the end the legal product is powerless thus revocation taken place.

Revocation towards PERDA can be prevented actually if the harmonization is truly held as it how supposed to be. If it is

held as it supposed to be then the revocation and the one that conflicted or contradicted with the higher legislation can be minimalized as well. When harmonization is held but still revocation took place means some criterial is not fulfilled. These criteria are first, the process of a good legislation making procedure that can answer any issues or problems, second it can be done effectively and efficiently, and last it has to be harmonized in term of not contradicting nor conflicting with others regulations.

Harmonization's is one of the process in legislation making as delegated on Indonesian Law Number 12 Year 2011. [3] As mentioned in this law harmonization is part of legislation making happened either in legislator sphere or executive one, depend on whose initiated it. When the legislation is come as the judicative initiation then harmonization shall happen within legislator chamber in this case is supposed to happen in legislative body (BALEG), in the meantime if the legislation come as the executive initiation then the harmonization shall happen within its legal division. This harmonization supposed to happen in any level of legislation no matter as the product of judicative or executive. Therefore, PERDA also needs to through these mechanisms as well. However, in its practices harmonization just happened almost in the finalization process of a legislation making, whereas the harmonization results sometime did not match desire and interest of the stake holder in this case is the initiator either executive or judicative. If it is so then there will be a big chance that the harmonization results are not going to be used in it finalizations. Thus seems that harmonization is such a useless effort to do. Because no matter how the harmonization done but if it does not being used in its final draft then it is true that harmonization does not meet it functions. When it does not meet it functions then the chance being revoked takes place.

During the harmonization the preventive mechanism of possibility being revoked actually there. What harmonization does is trying to eliminate any factors that makes any legislation being possible to be revoked, such as; harmonized it with any other legislations up and its level thus not contradicted nor conflicted each other, checking on the legal based being used whether it is appropriate or there is other/ new regulation that regulate it thus it needs to be adjusted, checking on the phrases, norm, diction and any relating to its legal drafting technique. Other than that, harmonization functions are to make sure that the legislation making mechanism run as article 5 and 6 of Law Number 12 Year 2011 already. It is mentioned that formally a legislation is made should meet a clear purpose, made by the right authorities, match among its type-hierarchy-substance, can be implemented, useable, clarity of formulation, and openness. Moreover it substance has to meet some principle such as ; shelter, humanity, nationality, kinship, have an archipelagic point of view, unity in diversity, justice, equality before the law and reign, orderliness and legal certainty, and/or balance, harmony and conformity. Other than those principles for a certain legislation also need to meet any other principles relate to its regulating materials.

Thus it is true when a legislation does not fulfill those principles then the possibility of being revoked is even higher.

Revocation toward PERDA as one of legislation existed in Indonesia can be done only through Judicial Review. Although the last mechanism which is through Minister of Home Affairs is being confined. The authority of Governor as the representatives of central government in a region to alienated district's / regency's PERDA and its subordinates has been revoked by the Constitutional Court Decision Number 137/PUU-XIII/2015. Thus by this decision executive review no longer reach the scope of revocation towards district's / regency's PERDA and other local legal products, but it still valid for Province's PERDA and it subordinates. But later, there is Constitutional Court decision number 137/PUU-XIII/2015 that alienated Minister of Home Affairs regarding its authorities revoking Province's PERDA and it subordinates. Therefore, through judicial review in which by means of Supreme Court is the only means of revoking any PERDA and it subordinates. However, the Constitutional Court What about by means of Constitutional Court toward PERDA and other local government legal products. Based on article 24 C clause (1) Indonesia's Constitution 1945 mentioned that one of Constitutional Court authority is to adjudicate on the first and final level which it decision is final in order to review legislation toward Constitution. Legislation in this term are general legal norm by special organ (acts) and regulations or ordinances made by central government. Meanwhile the revocation by means of Supreme Court can be done for those legislations that hierarchically is under act. Thus any legislation (include PERDA and it subordinates) that contradicted or conflicted with its higher legislation (act) shall be reviewed by Supreme Court.

Once again, these kind of revocation will not take place in if only the harmonization within in legislation making process is there properly. Although harmonization was done however if the process of a good legislation making procedure that can answer any issues or problems, can be done effectively and efficiently, and has to be harmonized in term of not contradicting nor conflicting with others regulations are missing within it process then the PERDA resulted will not match with the people interest. Moreover, even though harmonization process was done yet no expert relates to its making procedure involve in it then it will not have satisfied the result as well. Thus we need to use a very effective method within harmonization that can be a forcing tools for any legislation maker in order to do harmonization as truly as it supposed to be. This forcing tools needs to be a stiff mechanism in order to make harmonization result is a compulsory to be used in its final draft and only 'seems' as formality.

Harmonization is not an insignificant thing to do. If we can analyze it deeper, harmonization plays a very significant role preventing the revocation of PERDA and it subordinates. Harmonization supposes not only in a level of norm and rules of legislations but it can be a bigger concept than that.

Therefore, harmonization need to be understood it big concept first then it can go deeper to it norms and rules later. From this steps it can be shown how the harmonization cannot run as it supposes to be, because harmonization need a certain condition of how each sector and/or interest can walk hand in hand in order to solve problems that relate to another one.

From those elaborations above occur problems that need to analyses deeper relate to harmonization towards PERDA and it subordinates thus can prevent, avoid or at least minimalized the revocation through Judicial Review. It need to analyze more about what it harmonization truly is, because it relates to what and how harmonization supposes to do since there are different perspective of how implementing it based on Law Number 12 Year 2011, Minister of Home Affairs Regulation Number 80 Year 2015 and President Regulation Number 87 Year 2014.

Therefore, the problem of this research can be formulated as below:

1. How the harmonization process in region that happened all along thus many PERDA and other local government legal products are revoked?

2. How the harmonization supposed to be happened thus it can prevent, avoid and minimalized the revocation of PERDA and other local government legal products ?

And the purpose of this research are in order knowing how harmonization happened in region and how it supposes to be based on Law Number 12 Year 2011, Minister of Home Affairs Regulation Number 80 Year 2015 and President Regulation Number 87 Year 2014. Thus we can find the gap between and find the solution toward problem facing in term or many revocation of local government legal product.

This research not only going be based those Laws mentioned above as the theoretical bases but also using some other theories relate to legislation. As Adolf Merkel dan Hans Kelsen said that every rule of law is an arrangement of it (Stufenbau Des Recht). With this Stufentheorie theorie Hans Kelsen put forward in the peak of stufenbau there is a fundamental rule. In which the fundamental rule called grundnorm or ursprungnorm [4] . Grundnorm is a legal principle that abstract, general or hyphotesis. This theory develops later by Hans Nawiasky. He put this theory inside a state legal norms top to bottom hierarchically, start from the top Grundnorm , State Rules (Staatsgrundgesetz), Formal Rules or Acts (Formellegesetz); and last is the Implementing Rules (Verordnungen) [5] . In Indonesia this theory is modified by A.Hamid Attamimi, in which he engineered it into Indonesia's Legislation [6] . Indonesia's Legislation implementing this theory as mentioned in Law Number 2 Year 2011 that hierarchically as the highest one id Indonesian Constitution and the lowest is PERDA.

II. METHODS

This research material is from primary legal materials such as Law Number 12 Year 2011 about the forming of

legislations, President Regulation Number 87 Year 2014 as the implementing regulation of Law Number 12 Year 2011, Minister of Home Affairs Regulation Number 80 Year 2015 about the forming of Local Legal Products and Law Number 23 Year 2014 that had been changed couple of time as the last one with the Law Number 9 Year 2015 about Local Government. Despite of those law, this research also put Article 18 clause (6) Indonesia's Constitution Year 1945 as a primary material as well, since this is the milestones of local authority forming PERDA.

Secondary legal materials also used in this research in form of research results, international journal, and other attainment of legal circles especially one that figure it out how concept and practice of harmonization or in other forms that have purpose of to form a good legislation within a state. Tertiary legal materials also completing the legal materials of this research and this come from dictionaries etc.

This research is a normative legal research or literature study, means that this research that being done in order researching literatures, therefore data's that used is secondary one. However, as the complimentary of secondary data's there will be searching of primary data's either legislation expert opinions or technical implementation of problems and/or obstacles toward PERDA in its realization. This last method will use to interview the interviewee.

This research is a qualitative with descriptive purposes, technique that been used is a documentary study. Since the purpose of the research is to explore and depict thus it can find the ideal form of harmonization thus it need to be equipped by interviewing respondents that expert on legislations sphere and also one that relates to the implementations of the local legal product. Therefore, interview is one of the source of how gathering the data's.

Research start with exploring documentary materials and equipped with expert interviews. Since this research is qualitative, basically data's gathering methods is also the method of analyzing data's, in other word the methodic procedure is the data's strategic analysis. Quantitative method is a research method that based on positivism philosophy used to research in a population or a certain sample. The sampling technique is done randomly and data's gathering is using research instrument. Data's analysis is quantitative or statistical in order to test the hypothesis which has been set.

Therefore, the data's gathering process is also the data's analysis as well, thus after the data's had been gathered then researcher actually analysed it already.

In detail, the course of this research can be drawn as bellow:

- a. Data's gathering. In this step consist of relevant literatures or data's search whether it is direct or indirect either discusses legislations harmonization or it's a good making one. Exploration of legislation about it harmonisations or it's a good making is placed as primary legal research material. Answering first question of this research will be started with literatures

exploration and data's gathering that can explain how the harmonization toward local legal product process that had happened all this time so that even though it's taken place already but still there are revocations to it. Literatures exploration and data's gathering has to show a results of how the facilitation happen in order to get registration number from Province Legal bureau before the PERDA can be enacted. It takes sampling from Legal Bureau of some provinces as sample of other that has similar characteristic.

Other than that, other relating data's of harmonization of local legal product that done by either region or province government dan Local House of Representatives.

The second problem of this research which talk about how harmonization of local legal products truly supposed to be thus local autonomy can run well, will be traced with literatures that elaborates the implementation of harmonization in order to form a good legislation that in the end it's going to support the local autonomy implementation This exploration result will be equipped with legislations expert opinion that took directly through interview.

- b. Data's processing. This step is consisting of the implementation of research method to process the available data. Data's are processed in such a way thus obtaining understandings of how the harmonization process toward local legal product all this time going thus many of them were revoked. Not only as mentioned before, it has to show how the ideal pattern of harmonization towards local legal product thus the local autonomy can run based on how the harmonization shall do ideally regarding the law and its subordinates within Indonesia's Legislations system thus a good legislation making can be achieved.

c. Presentation of Research Results

In this step will present the result of the research thus there will be a picture of the implementation of local legal product harmonization in Indonesia and supposed to and at the same time will show the problems faced all this time process in harmonization within Indonesia's Legislation system.

This research at the end will be emptying for strengthening the harmonization result to be followed in form of forcing tools. This forcing tools will define the quality and legality of local legal product. Thus if harmonization was not doing truly it may resulting legal defect. With this mechanism, harmonization will not only minimize and suppress revocation towards local legal product but it will contribute and support the effort of creating a good legislation making process.

In this research there are at least three approaches that been done, statute approach and conceptual approach. Conducting this research can be described first, observing and analyzing data's gathered relates local legal product harmonization implementation thus it can describe how the harmonization run all this time especially in Kalimantan Timur, that still caused the revocation of PERDA and it subordinates. Second, critical analyzes and observance to the ideal form of

harmonization based on the Law Number 12 Year 2011 about the Legislation Making, President Regulation Number 87 Year 2014 as the implementation of Law Number 12 Year 2011, Minister of Home Affairs Regulation Number 80 Year 2015 about the local legal product making. Not only through those juridical based that being used as the search of how the harmonization towards local legal product supposed to be conducted but also using GRP and RIA Method. In order to analyze and to observe the actual problems faced by local government it is important to use Regulatory Impact Analysis (RIA) [7] since this method become one of the option that can be used in legislation making process that involving scientific studies that countable. Moreover, in order to measure the process of harmonization is using Good Regulatory Practices (GRP) [8].

III. RESULT AND DISCUSSION

A. The Harmonization Process in Region that happened all along

Harmonization process in region toward its local legal product can be start in two different times, they are; preparation/making and discussion. Harmonization start happened in preparation step when either executive or region house of representatives initiated any PERDA that already formulated in local legislation program (Prolegda). Usually when executives and it subordinates initiating any PERDA they will hand over the draft making to Legal Department to make it one, the initiator that came from the executive only gave some of guidance of what they want to regulate in that PERDA without submitting the draft. They give it to Legal Department to process it all until there is a draft of it. And the same thing happened when the initiate came from the local house of representatives (legislative). They will put their legislative body to organize and to make any draft of PERDA that need to be made. They will hand it over to them, however it still possibly to happen that the legislative body is not making it by themselves but hiring academics or legal expert to made one. These were what happen before the Law Number 12 Year 2011 taken place. When the Law Number 12 Year 2011 implemented it forced either executive or legislative cannot submit any PERDA to be appointed without academic paper that explained why that PERDA need to be made or to be enacted. This obligation of submitting Academic Paper together with the Draft is apply to one except those about Region Budget (APBD), revocation and/or amendment of PERDA. Therefore, almost all PERDA's Draft need Academic Paper before it can be legalized.

By that provision mentioned above, thus there will be no PERDA that entered into finalization without Academic Paper came along with it. It brings a good cause for any initiator so that they are not easily handed over drafting work purely to academics or legal expert or Legislative body / Legal Division. This new habit, bring a new problem actually because by this provision the hard work of drafting the PERDA no longer handed over to Legal Division or

Legislative body but it shifted to Academics as the Academic Paper. Although in making academic paper the can do it by themselves but usually they always put academics to be involved in it, then it still be academics burden to finish it all. Academic Paper in this level is significant factor of how the draft can be made, because the final result of the paper is the PERDA's draft. Either Executive or Legislative choose to use the draft that had been made within Academics Paper as their real draft to be propose and or discuss further in order to get it legalization. But the does this draft has shown it better quality rather than the previous one that handed over to legislative body/legal division? Well actually it is not, because as the matter of fact, mostly the Academics paper treated as a complementary only thus the Draft formally legal to be enacted. In this condition we will find so many disharmonies within the essence of the Academic Paper with the Draft resulted, because the Academic Paper is a requested work then it seems that the Academic Paper has to fit in with the Draft that actually already made and ready to be legalized. Meanwhile, ideally Draft that resulted from Academic Paper supposed to be the one that the stake holder holds on to since it is academically countable. But different condition also apply on the Academic Paper than formally and materially correct even in term of, Academic paper is truly made as it supposed to be without any request from stake holder and so on even Legislative Drafter already put in to be one of the Academic Paper team member. This must be hope that the draft resulted will be a ready to use draft with a very good quality. And yes if it resulting a good draft, but what happened sometimes is unexpected. Sometimes the stake holder reluctant to use the resulting draft of Academic Paper just because apparently it does meet their interest. In this situation the stake holder can decide not to use the Draft that resulted from Academic Paper, then they will make one that meet their interest. Thus the draft will totally different with the Academic Paper.

Those kind of practices are actually very regrettable, because when the Academic Paper making process conducted truly then all the academic paper works and it draft's resulted will be a good quality of legislation. Moreover, with the involvement of legal drafting as one of the Academic Paper Team. Legislative Drafter will play their role in resulting countable Draft. Because after the Academic Paper are done by the academics then legal drafting will continue to formulate what in Academic Paper into a draft that reflect the results of Academic Paper thus there will be a harmony between the Draft and the paper. In this condition make the harmonization to be done earlier, because th draft that has been resulted from Academic Paper surely being harmonized not only with the research result but also it will be harmonized with other law and legislation either vertically and horizontally even the diction and all legal drafting technique will be aligned. Harmonization in this preparation / making step is significant effort in reducing the time consuming just to discuss the legal drafting and other technical problems relates to its making. It could be

happened because in order to create the draft, Legislative Drafter will analyze the theoretical and empirical studies of the issue brought up in the research, relate to society aspiration and necessities that need to accommodate in the regulation. After it passes theoretical and empirical practices then Legislative Drafter will analyze and evaluate legislations relates to the legal based if there any laws that prohibit, contradict, or if there is any laws and/or legislation that has been changed so that it need to be adjusted thus in it implementations later there will be no overlapping among legislation and this draft has legal standing that legitimate. Later after analyzed and evaluating legislations related, then Legislative Drafter will make philosophical, sociological and juridical based for the Draft. Philosophical based is a consideration or reason that drawn the Draft is considering philosophy of life, consciousness and legal ideals that comes from Pancasila (Indonesia's philosophy of life) and Indonesia Constitution Preamble. Sociological based is a consideration or reason that the draft is made to fulfill all society need from many aspect relates to empirical facts about issues progress and society needs. Juridical based is a juridical consideration of legal issues relate with substance of the draft that drawn legally why the draft is need to be made. When the philosophical, sociological and juridical analyses finish then Legislative Drafter will analyze the scope of the draft by made the framework of general requirements, regulating materials, sanction and transitional provision.

Thus mentioned before is how the harmonization in taken place in preparation/making process, however mostly it happened in Discussion phase. When the discussion takes place means the draft being discussed is the one resulted from Academic Paper or the one that made by the initiator. In the discussion, harmonization can be done in two different ways.

First, harmonization was done after the facilitation in the Province Legal Bureau. Before we're step out to the harmonization that might be happened in different moment, we need to know of what is facilitation conducted by Province Legal Bureau? it is a mechanism provided by Minister of Home Affair that mention on Article 88 Minister of Home Affair Regulation Number 80 Year 2015 that facilitation toward draft of PERDA is done before there is a mutual consent between Executive and Legislative. Regarding to this law PERDA cannot be enacted when they have no register number got from the facilitation. Therefore, PERDA cannot be enacted without passing through the facilitation.

Kind of harmonization that has been run all of this time in Kalimantan Timur is the harmonization that conducted after the facilitation. The one conducted before the facilitation may consist of two ways, first a raw draft. This raw draft means, it never been harmonized that involved Regional Minister of Law and Human Right before, since this institution is the one who has legitimate Legislative Drafters in Kalimantan Timur. In this way of harmonization, the Region who needs their PERDA to be enacted will request a

facilitation to Province Legal Bureau. After that Province Legal Bureau will contact and ask Regional Minister of Law and Human Right through its Legislative Drafter to do some evaluation and other comment and note regarding to all Legal Drafting aspects of this requested PERDA, which this process taken quite some time up to a week more and less. When the evaluation and other feedback already delivered by Legislative Drafter to Province Legal Bureau then they will set the facilitation schedule inviting all relates institution such as the legal division and all relates government institution of the requesting region, Province government institution that relates to the PERDA materials, and Legislative Drafter from Regional Minister of Law and Human Right. In this facilitation will so much discusses the requested PERDA from many aspects either materially and formally such as its material charge and legal drafting. The Region that requested this facilitation will be asked to present their interest how why this PERDA need to be enacted, the urgency and its feasibility as well. Then will be responded by each of those invitee will give all their evaluation, comment, note and recommendation toward its PERDA. Usually this raw PERDA will not pass the facilitation, it given no register number yet, means the PERDA is cannot be enacted yet. This facilitation will recommend the requested region to fix the PERDA based on all the evaluations that has been delivered within the facilitation and moreover it will recommend to do harmonization involving Regional Minister of Law and Human Right through it Legislative Drafters. However, as the feedback of this facilitation sometime did not meet it purposes, since after the facilitation previous invitee did not ask to review the correction, does it already fix as it demanded, does the correction are correct, does it already fulfill all the requirement has been agreed upon the previous facilitation. Though small number of it follows up the facilitation result by consulting to relates Province institution and asking Legislative drafter to do the complete harmonization but mostly don't. The correction seems only be done by Province Legal Bureau without invitee consents. Thus sometimes all the invitee wonders how could the requested PERDA not long after the facilitation taken place be enacted. While they do not know whether that PERDA evaluated already fulfilled and /or corrected truly based on what the previous facilitation results.

Second way of harmonization taken before the facilitation. This kind of harmonization is the effective one, since it held before the facilitation, means the PERDA requested in the facilitation will be a mature one. This facilitation conducted through two ways; cooperation based and pure request. Cooperation conducted in two based first harmonization done based on Memorandum of Understanding (MoU) made between The region government and/or region House of Representatives with Regional Minister of Law and Human Rights, second through Team Decree. The cooperation based on Team Decree means that Legislative Drafters from Regional Minister of Law and Human Rights are formally involved in Legislation making process either in Region

Government and/or House of Representatives. With this kind of cooperation Region Government and/or House of Representative will harmonize all its PERDA to Legislative Drafters from Regional Minister of Law and Human Rights. The harmonization can take place in any process from the drafting, internal and or external discussion (before facilitation for sure), even when the facilitation over and still need some of corrections to be corrected the harmonization will still do by this kinds of cooperation. This cooperation allows the requested region government and/ house of representatives to do harmonization far before the facilitation takes place, they could do harmonization during the discussion internally whereas the stake holder of region government and all relating parties already involved in it. During the discussion not only about legal drafting and synchronized any legislations vertically and horizontally, but also the possibility of the implementation toward 'Discussing Draft', of problems that could possibly occur in the implementation in the future either for society or region government as the executor of the Draft. All the obstacles that might be shown in the Drafts already been discussed, projected and could be also predicted. Legislative drafter do their part drafting the draft that adjusted based on Law Number 12 Year 2011, President Decree Number 87 Year 2014 and Minister of Home Affairs Regulation Number 80 Year 2015. Formally the draft will be adjusted based on those law. Other invitee that comes from relating institutions will also give their input toward the draft, whether the material content of the draft is accommodating all it needs to support them running their duty as good as possible and the most important thing that when the draft is become PERDA is can be implemented and contributed to social welfare.

Thus in those internal discussions are possibly solves or at least find a way to resolve obstacle that occurred or might be occurred caused by the draft. This actually one of the purpose and function of harmonization, therefore harmonization that took place By this kind of way, the harmonization will be more effective. When it comes to facilitation there will be no more discussion relate to legal drafting in details, because the harmonization had been settled far before the facilitation taken place. Even if there is any corrections usually came from Province institution relates to its substance and it authority, does it correct already or need any correction. When there are correction toward it draft then the process will took a very short period of time because all discussion internally had been done before. What it lacks from the draft then it can be added and vice versa. When there's only minor correction toward the draft, it easier and faster to do correction. If correction has been done Legal Bureau will bestow the register number that can be used by Local Government as the legal foundation in order to stipulate the Draft become PERDA.

The practices, harmonization towards PERDA are directly comes to it norms. The draft norms or substances are harmonized with those higher or parallel legislations, forgetting the actual big concepts of the PERDA it self, meanwhile harmonizing the norm supposed to be the last

thing need to do after harmonizing the big concept of the Draft toward the constitution.

Moreover, in the planning concept of the draft that made by the initiator in order to create the draft, usually got from the Academic Paper that fully made by the academist, the initiator will evaluate the draft late after the research within the academic paper already done. Meanwhile in the meaking of academic paper it has to involve Risk and Impact Analysis (RIA) in it, not only how to make academic paper formally. And the GRP concept shall also accommodate within the draft making, thus the draft will reflect the needs and the urgency of the draft for the society.

However, not only regard to the procedure of harmonization there must be any obstacles handled during the harmonization, because it is impossible to be resulting a good legislation when some criteria or requirements did not fulfill.

B. How the Harmonization supposed to be happened thus it can prevent, avoid and minimalized the revocation of PERDA and other local government legal products.

The regulation toward the settlement of harmonization regulated within Law Number 12 Year 2012, President Decree Number 87 Year 2014 and Minister of Home Affair Regulation Number 80 Year 2015. Regarding to article 46 clause (2) Law Number 12 Year 2011 Region House of Representative harmonized its legislations by coordinated within its organ that handled legislations, in this term is Legislation Body or Banpempemda/Baleg. Thus the harmonization towards legislation initiated by Region House of Representative is conducted by Banpempemda. Meanwhile the harmonization toward legislation that initiated by executive is conducted by its legal division for PERDA's region and by its Legal Bureau for PERDA's Province.

Regarding to Minister of Home Affairs Decision number 80 Year 2015, it is mentioned that after the draft made by the initiator by means of executive, the team leader of the draft making will propose the draft to Governor through Province's Secretary in thus it the harmonization can be conducted. The secretary will put Head of Legal Bureau to coordinate the settlement of harmonization that can involve the vertical institution related to legislation making, when it finished the secretary will deliver the harmonization result to the initiator of the draft. For the draft that initiated by Region House of Representative, will be delivered by the Region House of Representative to Benpempemda Head in order to be reviewed. That review held in order to be harmonized. Thus the harmonization of it took place in Reviewed by the Banpempemda.

Based on President Decree Number 87 Year 2014 as mentioned that harmonization is done in Province Legal Bureau, in which the harmonization ordered by Governor to Region Secretary in order to conduct harmonization. Lead by the Legal Bureau, harmonization can involve vertical institution as well. When the harmonization finished then

next Region Secretary will deliver the result to the initiator institution.

Those mentioned above are the procedure conducting harmonization based on the laws. But how the harmonization it actually supposed to happen will be elaborated as follows; The big concept of the draft supposed to be harmonized with the Indonesia's Constitution Year 1945. Means that for the very first step harmonizing the draft need to be synchronized with the constitution. If the draft did not meet the qualification and/ or conflicting or contradict with the constitution, then it will be cancelled thus it cannot be proceeding further and vice versa, if it doesn't conflict nor contradict with the constitution then it will be continued with another process. When the draft doesn't conflict nor contradict with the constitution then it will be harmonized with the article 5 and article 6 of Law number 12 Year 2011 that regulated about legislation making at the same time it harmonized with the big concept of higher legislation. Harmonizing the draft based on article 5 means that the draft need to fulfill some requirement such as: clear purposes, an authorized institution and official, conformity among kind; hierarchy; and substance of the draft, executable, effective, clarification of the formula, and openness. Meanwhile based on article 6, the draft need to fulfill some principles such as; aegis, humanity, nationalistic, kinship, archipegeic, unity in diversity, justice, equality before the law, legal certainty, balance-harmony and conformity. Other than those principles it can be conformed with local wisdom as well. When the draft is met with that qualification then next phase of harmonization is to harmonized with the higher legislation that regulated the same materials with the draft. If the draft is in line with the higher legislation, then it can be proceeding to the next step of harmonization which is harmonized it with the legislation that parallel with draft. This harmonization not only for the sake of the draft substance but also to do double check if there are other PERDA that regulate the same thing as the draft, if it is so then it need to check the different between them, does the object, subject and the materials content. It purposes to avoid overlapping between PERDA that used to happen resulting revocation.

In the preparation mechanism, RIA need to be put the priority that being analyze in the academic paper thus it will create the best draft resulting as the attachment of the academic paper which is the draft. GRP will be taken place as better preparation in the draft making, thus the draft resulting from the academic paper will be perfected with GRP analysis during the draft making, thus final draft will be a good PERDA.

Therefore, as the main thing of what harmonization does is actually three major thing which are; harmonizing the draft with the constitution, higher and parallel legislation. But it will be better when harmonization is not merely done towards legislation and constitution only. It could be considered the necessity of society, because sometimes we might find any local government legislation that not conflicting nor contradict with constitution or higher and

parallel legislation but in its practices it is not executable. How could a PERDA is not executable? Well it usually doesn't meet what society needed the most. Thus in order to make an effective legislation need to involve society in it's making, since the people is the one who will be affected the most by the legislation.

IV. CONCLUSIONS

Based on the analyses above, it can be concluded that:

1. The harmonization process in region that happened all along is basically only be done formally and still not fully regards to the Law Umber 12 Year 2011, President Decree Number 87 Year 2014 and Minister of Home Affairs Regulation Number 80 Year 2015. There still a different paradigm about when the harmonization taken a place, some are conducted before the facilitation in the Province's Legal Bureau that actually in concordance with the Laws mentioned before although mostly still took place after the facilitation. Harmonization toward the norms of the draft also become another problem. What happened all this time is mostly the norms of the draft that being harmonized either toward the higher or parallel legislation and it's only reach the norm harmonization, meanwhile those are not the truly meaning of harmonization.

2. The harmonization can prevent, avoid and minimalized the revocation of PERDA and other local government legal products when it's conducted before the facilitation, moreover it needs to refer and synergized among the harmonization that regulated within Law Number 12 Year 2011, Minister of Home Affairs Regulation Number 80 Year 2015 and President Decree Number 87 Year 2014 and the harmonization shall not only reaching the norms, but it has to be harmonized the big concept of it towards constitution first. After it's finished with the harmonization toward constitution then the big concept of the draft need to be harmonized with the big concept of the higher and parallel legislation, then it can go to the norms. Thus harmonization toward it's norms actually be last thing that has to be done.

ACKNOWLEDGMENT

I would like to put my highest gratitude to Regional Office Minister of Law and Human Right Kalimantan Timur in order to make this research possible to happened. My all respect to Kalimantan Timur Provice's Legal Bureau that allowed the researcher to observe and participate in the process of legislation making.

REFERENCES

- [1]. Kementerian Dalam Negeri, Daftar Perda/Perkada dan Peraturan Menteri Dalam Negeri Yang Dibatalkan/Revisi, 21 Juni 2016.
- [2]. 1945 Indonesian Constitution, Article 18 Clause (6).
- [3]. Article 46, 47, 48, 54, 55 and 58 of Law Number 12 Year 2011.

- [4]. Hans Kelsen. General Theory of Law and State, translated by Anders Wedberg & Russell, New York.1973.
- [5]. Rosjidi Ranggawidjaja. *Pengantar Ilmu Perundang-Undangan Indonesia*, Bandung, Mandar Maju. 1998.
- [6]. Hamid S. Attamimi. *Peranan Keputusan Presiden RI dalam Penyelenggaraan Pemerintahan Negara*, Disertasi, Fakultas Pascasarjana Universitas Indonesia, Jakarta. 1990.
- [7]. Modul KKMPPPM Review Perda. Fakultas Hukum Universitas Gadjah Mada. 2009.

The Attitude of Indonesian Migrant Workers in Hong Kong (A Study of Functional Systemic Linguistics)

Netty Nurdiani¹⁾, Djatmika, Sumarlam²⁾, Tri Wiratno³⁾

¹⁾*Sebelas Maret University, Surakarta, Indonesia*
E-mail: netty.nurdiani@gmail.com

Abstract. The article aims at evaluating the affection shown by the Indonesian Migrant Workers (IMWs) in Hong Kong through their written works contained in the rubric of Cahaya Utama and Berbagi Hikmah of the CahayaQu Magazine as well as those contained in the rubric of Sapa Iqro of the Iqro Magazine. Both magazines are published in Hong Kong and managed by IMWs. The purpose of the research was to obtain an illustration about the attitude shown by the IMWs in Hong Kong and the underlying reasons for performing such attitudes. The data were selected purposively and analyzed using the appraisal theory. The results showed that the number of positive affections and positive judgments indicated the attitude of the IMW for having motivation and spirit to continue their lives in Hong Kong. Meanwhile, the number of negative appreciations -which was outnumbered the positive appreciation- were used as triggers to develop themselves to becoming into better and more courage individuals.

Keywords: appraisal, attitude, affect, judgment, appreciation

I. INTRODUCTION

Hong Kong is one destination for the IMWs to work. Currently a number of 150 thousands IMWs work in Hong Kong. This number is not small and is likely to grow because Hong Kong is one of favorite destinations for the IMWs to work¹⁾. Hong Kong possesses some regulations concerning the foreign workers working there. The regulations are meant to protect the workers, especially the IMWs. The related regulations include waging, weekly off, leave, healthcare security, and right to associate²⁾. This freedom of association has caused a freedom among the IMWs to actualize themselves. One of the actualizations is through the publication of magazines that can be used as means of communication.

In Hong Kong there magazines published in the Indonesian language, namely Iqro (IQ) Magazine and CahayaQu (CQ) Magazine. Both magazines are published in the Indonesian language because they are targeted for the IMWs working in Hong Kong. The CQ Magazine has declared itself as Islamic Mission Magazine for spreading the lights of Al-Qur'an, while the IQ Magazine is based on vision to be read, to be practiced, and to be shared. Both magazines are Islamic based magazines. It is therefore expected that the magazines can change the characters of their readers.

In reality, magazines have four functions, namely to distribute information, to educate, to entertain, and to affect. (Effendi. 1993: 93-94). Therefore, from both magazines the attitudes shown by the IMWs in all aspects of their lives can be induced. An article of a magazine that has been comprehensively read can develop and change the characters of its readers (Munir and Hartono, 2016: 68).

While they are in Hong Kong, the IMWs follow the ongoing rhythm of their lives working in domestic sector or as domestic helpers. Although they work in domestic sector or as domestic helpers, the IMWs have opportunities to have vacation or attend activities held by the IMW Organization. Working overseas or being away from their families may possibly emerge feelings or attitudes in their routine activities. This paper is written to find out the attitude of the IMWs in motivating themselves and their friends based on three articles selected from the magazines.

Most problems concerning to the migrant workers relate to the violation of human rights (Farbenblum, et.all, 2013: 23). For this reason, studies concerning the migrant workers generally relate to the legal and protection domain. Researches concerning to languages as used by the migrants, more specifically works written by the migrants, are too few or nil.

A. Functional Systemic Linguistics (FSL)

The research used a theory introduced by Halliday in 1985 which was called Functional Systemic Linguistics (abbreviated as FSL). Halliday 1985;1994) classified language strata into 3, namely lexicogrammar, discourse semantic, and social context. Topic of discussion under the lexicogrammar included oral language, written language, gestures and visual. Language was used to expose, to exchange, to describe, or to organize experiences within the social context. The metafunctions of a language within the perspective of FSL were called ideational meaning, interpersonal meaning, and textual meaning. Appraisal study was a study of interpersonal function of a language developed by Martin and White (2005). Halliday (1978) used the term Functional Systemic Linguistics (FSL) to disseminate language function within the social interaction.

Grammar was used as a source to express relational purpose to the related oral or textual situation and culture

B. Appraisal Theory

The Appraisal Theory was the development of Functional Systemic Linguistics created by Halliday (1985/1994), Halliday & Matthiessen (2004) and was related to interpersonal meaning and discourse semantic within social relation negotiation text by communicating emotion, evaluation, and appreciation.

An appraisal device developed by Martin & Rose (2007) was used to analyze the spirits of the writers. According to Martin & Rose (2007) the appraisal system referred to appraisal relating to the evaluation of attitudes negotiated within the text, the involved strength of emotion and feeling observable in the texts, and how values of things or objects resulted and adjusted to the readers (2007: 27). The appraisal system was closely related to the doers of the communication and the social relation between them (in this case the writers/contributors and readers). Appraisal was a frame of theoretical concept to evaluate a language. The appraisal system related to one metafunction of a language, namely the interpersonal system. The appraisal framework consisted of three subsystems, namely attitude, graduation, source of attitude. The research selected the attitude aspect to evaluate the works written by the IMWs in Hong Kong which were published in the selected magazines

C. Attitude

Attitude is one of domain in appraisal system. Attitude relating to evaluate objects, characters, and feelings. Attitude categorized into three evaluation domain there are affect (people's feelings), judgement (people's character), and appreciation (value of things). Affect is used to discuss an expression of emotion and feeling. Affect can be negative or positive. Affect shows bad feeling or good feelings. Judgement is normative from the human behavior perspective which relate to the rules or convention behavior. Judgement relating to ethics, religion, moral, and rules. In general, judgement can be divided into two categories: social esteem (personal) and social sanction (moral). Appreciation is evaluations at how people feel about people and the way they behave. Appreciation of things includes attitudes about TV shows, films, books, CDs; about painting, sculptures, homes, public buildings, parks; about plays, recitals, parades or spectacles and performances of any kind. Feelings about nature for that matter –panormas and glens, sunrises and sunset, constellations, shooting stars and satellites on a starry night. As with affect and judgement, appreciation can be positive and negative.

II. METHODS

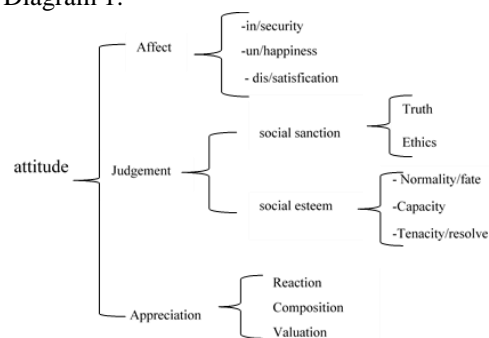
Data for the research were articles written by the IMWs as contained in the rubrics of:

1. Berbagi Hikmah in CQ Magazine no 22, June, 2014, an article entitled "Kelola Pondok61, Rajin Baca, Kuliah Online".

2. Cahaya Utama in CQ Magazine no 18, February, 2014, an article entitled "Mantan Peminum Jadi Praktisi Thibbun Nabawi.

3. Sapa Iqro in IQ Magazine no 86, January, 2014, an article entitled "Kolom Jejak: Darwinah".

The IMWs meant in this research were the IMWs working in Hong Kong. They were not the redactional staff of the magazines. The data were collected in 2014. They were selected using random sampling technique. The selected samples were those which could provide maximum information and not for generalization (Lincoln & Cuba, 1985). Such a sampling technique tended to be purposive because it was considered better in catching the completeness and depth of data in facing no single reality (Sutopo, 2003:36). The selection was directed toward the source of data that was having important data relating to the problems being searched. The rubrics were selected from editions showing the presence of data related to the attitude of the IMWs in Hong Kong, namely affect, judgment, and appreciation. Details of the attitude are shown in the Diagram 1.



(Modified from Martin & Rose, 2007)

Diagram 1. Attitude Concept

The research was started by studying documents using the FSL approach and using the appraisal system to study the attitude of the IMWs in HK as encountered in analyzed articles. Then a qualitative analyses such as Spradley design (/1980) was used as a procedure.

Spradley (1980) mentioned that the analyses technique for a qualitative research consisted of four stages, namely : 1) domain analysis, 2) taxonomy analysis, 3) componential analysis, and 4) cultural theme analysis. In domain analysis data and non data were analyzed. The domain analysis was applied to group data based on appraisal system analyses. The componential analysis was used to see the relation of the appraisal system within the text. The cultural theme analysis was used to see the relationship after linking the results of the analyses of secondary data.

III. RESULT AND DISCUSSION

The analyses of the research was prepared to answer the question about the spirit of the IMWs working in Hong Kong through their writing published in both magazines and the underlying reason for using such expressions. Analyses

about the three articles contained in the CQ and IQ are presented as follows:

TABEL of ATTITUDE

1. Affect	
Positive : 39	Negative: 32
2. Judgment	
Positive : 12	Negative: 7
3. Appreciation	
Positive: 11	Negative: 22

The analyses showed that positive affect (39) was higher than negative affect (32). Positive judgment (12) was also higher than negative judgment (7). In *appreciation*, however, the negative was higher than the positive, namely (22) negatives compared to (11) positives.

A. Affect

Affect related to the writers' attitudes or feels through the use of clauses found in those three articles. In this research, the attitudes or feels were classified *positive affect* and *negative affect*. When the *positive affect* outnumbered the *negative affect*, it indicated that the writers had good attitudes/feels. The *affect* shown by the IMWs working in HK were identified in the following texts:

a. Be happy/ be thankful (to Allah)

- (1) *Orang-orang takut, campur rasa syukur.* (53) → People are afraid, mixed with **thankful**.
- (2) *Tapi saya masih beruntung, ...* (79) → But I am **still lucky**.
- (3) *Hidup berbahagia dengan kelahiran bayi laki-laki* (85) → Live **happily** with the birth of son.

b. Develop personality

- (4) *saya masih terus berproses, move on untuk perkembangan lebih baik dan mencapai misinya,...* (25/26) → I am still **continue processing, moving on** for better improvement and **reaching** my mission ...
- (5) *...memanfaatkan waktu, kesempatan yang ada ...* (28) → ... **use** existing time and opportunity.
- (6) *Alhamdulillah, ternyata akhirnya saya bisa mengejar pelajaran di ITN-HK* (129) → Alhamdulillah, I **can finally catch** the lessons in ITN – HK.

c. Sadness

- (7) *Tidur di bawah jembatan, siangnya mencari pekerjaan.*(63) → **sleep under the bridge, find jobs at noon**.
- (8) *...tapi tak dapat saya tahan kerinduan*(76) → ...but I **can't stand missing** ...
- (9) *Saya menjadi gelisah dan sulit tidur karenanya.* (77) → I was **getting anxious** and **difficult to sleep** because of it.

d. Other Negative Affect.

- (10) *Meski saya marah kepada keluarga* (75) → Though I **was angry** to the family

- (11) *Saya nekat merantau ke Hong Kong* (106) → I **desperately** go to Hong Kong.

- (12) *... lepas acara kembali lepas jilbab dan minum* (118) → ..after the program I **took of** my hijab and drank.

B. Judgement

Judgement domain related to discussion about normative valuation of human behaviors which were linked to roles and convention of behaviors. The valuation can either be positive or negative. *Judgment* within the texts was among other found in the following clauses:

(a) Positive

- (13) *Hambatan pasti banyak, masih bisa saya selesaikan* (9/10) → There were of course many problems, but I **could manage them**.

- (14) *Saya bekas seorang peminum* (1) → I **used to drink**.

- (15) *...BMI mandiri dan berdikari,* (114/115) → IMW was **autonomous and self sufficient**.

(b) Negative

- (16) *...yang ingin menjadikan saya istri mudanya* (29) → ...who wanted me to **be his young wife**.

- (17) *Dijodohkan dengan seorang petani* (93) → I **was forced to marry** a farmer.

C. Appreciation

Appreciation was one of the three domains of attitude which was related to the valuation upon object including attitude toward television program, park, painting, scenery etc. including in the valuation were the relationship among humans and abstract quality of life. *Appreciation* found in the analyzed texts are as follows:

a. Positif

- (18) *Pondok buku 61 adalah toko buku dan perpustakaan yang bertujuan meningkatkan minat baca, dan menggairahkan* (93/94) → Pondok Buku 61 is a book store and library intended to **improve** reading habits, and **develop**

- (19) *Sukses kerja 2 tahun* (110) → Work **successfully** for 2 years.

- (20) *Anak-anak tumbuh sehat* (111) → The children **grow up healthy**.

b. Negative

- (21) *Masa kecil saya dulu hidup mondar-mandir, tinggal berpindah-pindah ...*(2) → My childhood **was here and there, lived moving from one place to another**.

- (22) *Tapi Bapak tak pernah berubah* (19) → But my father **never changed**.

- (23) *... untuk perkembangan lebih baik* (105) → ...for **a better development**.

Based on the collected data, a discussion about the texts and the cultural context in Indonesia and the cultural context where the IMWs worked was implemented. Data

analyses using the *appraisal* theory could probably found the attitudes of the IMWs in HK in moving forward to face the future and considered their past as triggers to improve better lives.

Unhappiness experienced by someone drove his/her willingness to leave that unhappiness. In addition to the examples presented previously, writers who had witnessed sad moments used the following affects to express their attitudes: *the memory remains, afraid, sad, jealous, having quarrel, can't stand staying at home*.

This expression was written by a IMW who had sad childhood due to the unfairness made by her father: When *having quarrel* because of *jealousy*, father did something *unfair*. The word unfair was a negative appreciation shown by the writer in her childhood. In her second marriage, because her first husband had passed away, the writer valued her second husband using this expression: *He was good at first, but then he showed his real characters*. The unfaithfulness of her second husband was expressed using the following clause: *... but my husband brought home another woman*. The events happening to her life in Indonesia have caused her leave for Hong Kong as an escape. She lived oversea in a labile manner.

Negative affect and positive affect appeared interchangeably. She said that she *did again her drinking habit, gathered with the community of break-dancer*, but she was driven to attend Islamic mentoring. *There was a recitation program, I was one of the committee members, but after the program I took off my hijab and drank again*. Her attitude changed in the recitation program. She expressed using the following affects: *sat down to listen to the lecture, was aware, remember my health, my children and their future*.

The contributors of both magazines showed different attitudes. These various attitudes were caused by different purposes they wanted to achieve. The critical and optimistic attitudes performed by the writer were to look for information while providing valuations upon someone's business (who was identified as Darwinah). Positive appreciation was given to Darwinah's business which were realized by using the expressions: *so good, along with the entrepreneurship of my family*. However, to the Darwinah's business conducted in home land Indonesia, the writer gave negative appreciation: *because our business was just like that (no progress)*. This appreciation was in contrast with Darwinah's business which was valued *so good*. The writer used judgment aspect *so I was not ready to go home* for valuing the unstable business. This was an indication that the writer wanted to go home but her business conducted in Indonesia had not been stable yet for earning her living.

Other contributors expressed their happiness for going back home to Indonesia using positive affect: *going back to Indonesia forever, want to develop and manage (business)*. In addition to that, she motivated her readers by using positive affects, such as *be diligent, join workshop, attend online lecture*. Furthermore, she provided positive

appreciation using the following expressions: (*online lecture*) *to support knowledge, library was intended to improve reading habits, develop entrepreneurship through books*. She also provided positive judgment, for example *there were of course many problems, but I could manage them*.

It should be noted from the three analyzed texts that there were changes from *nothing* to *hero*. The changes of attitudes performed by the IMWs who had passed various development of personality occurred in accordance with the vision of each individual. Yet, those three writers expressed their attitudes to go back to Indonesia and fulfill their lives after going through a personality development in between the job as domestic helpers.

IV. CONCLUSIONS

The texts selected from the *IQ* and *CQ* magazines published in Hong Kong were analyzed using the *Appraisal Theory* under the *attitude domain*. The results show that the texts provided illustrations about affect, judgment, and appreciation as well as a valuation of the relation between the texts and context through language evaluation. The conclusion that can be drawn: the positive *affect* is outnumbered the negative *affect*. This shows that the IMWs possess positive attitudes or feels in providing judgment or appreciation for issues related to their lives. The number of positive *affects* indicates a clear vision owned by the IMWs concerning their purposes of working overseas in Hong Kong. The positive attitudes shown by the IMWs working in Hong Kong can be used as means to motivate their friends in order to follow their ways: working and at the same time develop personality and bring back the results to Indonesia.

REFERENCES

- Effendi, Onong Uchjana. 1993. *Ilmu, Teori, dan Filsafat Komunikasi*. Bandung: Citra Aditya Bakti.
- Farbenblum, Bassina, Eleanor Taylor, Sarah Paoletti. 2013. *Akses Buruh Migran Terhadap Keadilan di Negara Asal: Studi Kasus Indonesia*. New York: Open Society Foundations.
- Halliday, M.A.K. 1978. *Language as Social Semiotic: The Social Interpretation of Language and Meaning*. London: Edward Arnold
- Halliday, M.A.K. 1985/1994. *Introduction to Functional Grammar*. London: Arnold.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills: Sage Publication
- Martin, J.R & White, P.R.R. 2005. *The Language of Evaluation: Appraisal in English*. Basing stoke, UK: Palgrave
- Martin, J.R, & David Rose. 2007. *Working with Discourse: Meaning Beyond The Clause*. New York: Continuum

- Munir, Sirajul dan Rudi Hartono. 2016. "Islamic Magazine Articles to enhance Student's Reading Skill and Build Their Character Values." *International Journal of Education* vol 9, No1. August 2016, pp. 68-73
- Santosa, Riyadi Agus Dwi Priyanto, Ardiana Nuraeni. 2014. "Genre and Register of Antagonist's Language in Media: An Appraisal Study of Indonesian Newspapers". *Jurnal Kata*. Vol 16, No. 1. ISSN 2302-6294 (Online)
- Spreadly, J.P.1980.*Participant Observation*. New York: Holt,Rinehart and Winston
- Sutopo, H.B. 2003.*Metodologi Penelitian Kualitatif: Dasar Teori dan Terapannya dalam Penelitian*. UNS Press.
- 1) Tujuh Negara Tujuan Favorit TKI.
<http://www.dw.com/id/tujuh-negara-tujuan-favorit-tki/g-19238056>
3 January 2018
- 2) Hamidah, Siti. 2016
<https://media.neliti.com/media/publications/35158-ID-perlindungan-hukum-positif-indonesia-dan-hukum-positif-di-hong-kong-terhadap-hak.pdf>
diunduh
3 January 2018

Analysis Of Implementation ISO 9001: 2008 Model Of Internal Customer Process PT. KMI

Rosmiati

¹⁾Indonesia

E-mail: hanafi.rosmiati@gmail.com

Abstract. Writing this journal focuses on quality management system ISO 19001: 2008. Customer definition according to ISO 9001: 2008 is the organization or person who received the product, while the organization is a group of people and facilities with an arrangement of responsibilities, authorities and relationships, BS EN ISO 9001: 2008. Customers can be categorized into internal and external customers. An activity or set of activities using resources (manpower, infrastructure and equipment) is managed to enable the transformation of inputs widened output can be considered as a process. The output of a process is the next input. The process can also be an organization's internal processes. These investigators about the activities of the organization's internal quality management system model aspects of internal processes. The process of repair / fabrication intercooler 130-EC-02-08 PT. KM) as the object of the application of ISO 9001: 2008 with internal customers Utility Section. This model adopts clauses 4 to 8 and then validated. This activity is carried out by observation with a view suitability of each section documents the procedures involved. The result-oriented quality management system internal process model applied in these activities in accordance with the procedure document quality is 100% and the results of this study we concluded that the organization is ultimately as well as a manufacturer of internal - external customers. The successful implementation of quality management at PT. KMI is strong support the management and implementation of internal-external audit lasted for 11 years and consistently.

Keywords: A manufacturer of internal and internal customers, ISO 9001: 2008, Quality management systems-oriented model of internal processes and the method of observation.

I. INTRODUCTION

The quality gurus define quality, based on their perspective: According to W Edward Deming, Quality is consistent with market or consumer needs. That the quality problem lies in the management and done with the approach of psychology and quality culture. According to Philip B Crosby, Quality is conformance to requirement, which is in accordance with the required or standardized. This idea is a commitment to always succeed and eliminate failure and Quality Is Free. Josph M. Juran defines quality as fit for use (fitness for use), which implies that a product or service must be able to meet what is expected by the wearer while according to Kaoru Ishikawa, quality is customer satisfaction. What according to ISO? Quality is the degree / characteristic level attached to the product that includes requirements / desires. The four gurus of quality and ISO 9000: 2008 emphasize the same basic principles of focus (managerial) process and customer satisfaction. So it is very important for any organization that implements the ISO to precisely define who the customer is. The inappropriateness of this definition will result in a misdirected system. In this journal the customer is an internal customer (Utility Section). The implementation of the quality management system becomes a fundamental and strategic need of an organization it is important to ensure that the products produced conform to the minimum requirements and minimum expectations of internal and external customers. ISO 9001: 2008 provides guidance on implementing, developing and improving the effectiveness of the quality

management system based on the Plan-Do-Check-Act (Daming) process approach to improving customer satisfaction and requirements, drawing 1. A company, the product of the resulting organization is often the result of some organizational process (input-output), output can be input for the next process, BS EN ISO 9001: 2008. This small process will affect the quality of the final product (chain effect).

In writing this journal aims to know the implementation of ISO 1901: 2008 in a group of organizations (Mechanic, Engineering, Inspection, Logistics, HRD section & Management) in the repair / fabrication of Intercooler 130-EC02-08 head exchanger. This intercooler is used by the internal customer organization utility section. This intercooler serves to cool oxygen products generated from other processes. This oxygen is furthermore as one of the main ingredients for methanol. To guarantee the quality of repair / fabrication result, it is applied ISO 1901: 2008 quality management for internal customer satisfaction and expectation based on process based quality management system model as in figure 1, BS EN ISO 9001: 2008.

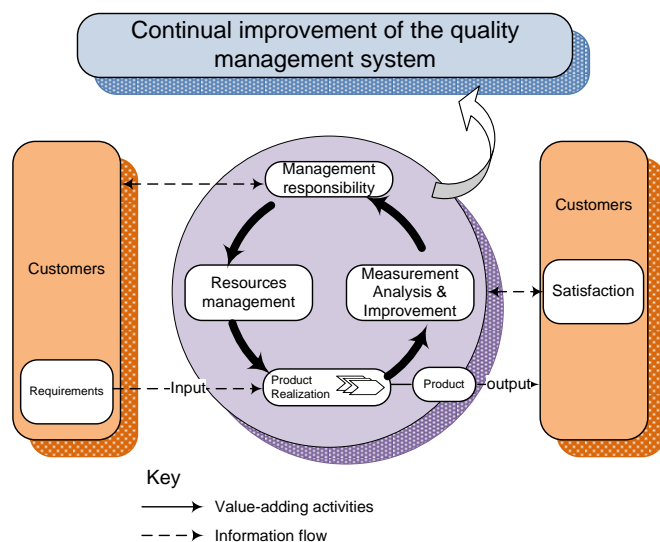


Figure 1 – Model of a process-based quality management system

Source: BS EN ISO 9001: 2008 and data processed, 2017

Based on the above background, the research formulated as follows:

- How is the implementation of ISO 1901: 2008 standards based on internal customer processes?
- Is the internal customer process-oriented quality management system model can also be a customer as well as a manufacturer?

ISO 9001: 2008 regulates the Quality Management System (QMS) system often referred to as "ISO 9001: 2008, QMS". This quality management is more focused on the business process pattern that occurs in the organization of the company so that almost all types of business can implement the ISO 9001 quality management system. The ISO 9001: 2008 system focuses on the effectiveness of the continual improvement process with the main pillar of the PDCA (Deming) thinking pattern, in which every process always performs careful planning, clearly measured implementation, accurate data evaluation and analysis and appropriate corrective action and monitoring the implementation in order to really be able to solve the problems that occur in the organization. The 2008 version also stipulates that the corrective and preventive action process undertaken effectively impacts the process change taking place within the organization, BS EN ISO 9001: 2008. In addition, the emphasis on outsourced process controls has been highlighted in the latest version of ISO 9001. To assist companies in implementing and developing a systematic quality management system focusing on customer satisfaction and continuous process improvement, understanding of the requirements of ISO 9001: 2008 standards needs to be known in depth.

II. METHODS

Observation method: is a data collection technique, where the researchers make direct observations to the object of research to see closely the activities undertaken (Riduwan, 2004: 104).

Basically observation techniques are used to see and observe changes in social phenomena that grow and develop which can then be made changes to the assessment, so as to separate between necessary and unnecessary. (Margono, 2007: 159). In this research, it is important to observe the implementation of the quality management system in the fabrication process and repair intercooler 130-EC-02/08 which is being done in the maintenance department (workshop) refers to the process that has been made by each section involved. Instruments that are used in making observations in the form of Check list of respondents, factors to be observed, time and place can be seen in table 1.

Tabel.1 Check list of observation

N O.	RESPOND EN (Section)	DETAIL OBSERVATIO N	OF SCHEDU LE	THE PLA CE	OBS. (Y/N)
1	Utility	Procedures and implementation of ISO 9001: 2008	September, 1 up to 15 2015	All section	
2	Engineering	Procedures and implementation of ISO 9001: 2008			
3	Inspection	Procedures and implementation of ISO 9001: 2008			
4	Mechanical	Procedures and implementation of ISO 9001: 2008			
5	Logistic	Procedures and implementation of ISO 9001: 2008			
6	HR	Procedures and implementation of ISO 9001: 2008			
7	MR ISO	Procedures and implementation of ISO 9001: 2008			
8	Production Dept.	Procedures and implementation of ISO 9001: 2008			
9	Maintenance Dept.	Procedures and implementation of ISO 9001: 2008			
10	Management	Procedures and implementation of ISO 9001: 2008			

Note: OBS (Observation)

Observation Flow Diagram

The flow diagram of observation refers to the model of the quality management system based on the process, see figure 1. Explanation diagram:

1. First Process (input): Internal customer is Utility section that use equipment is for production process activity of methanol grade AA. Requirements: The operations department wants that the repaired / fabricated equipment

in the maintenance department meets the requirements of ISO, ASME, TEMA and can function as desired by the system (reliability).

2. The second process (product realization): a series of systematic processes to realize the repair / fabrication activities 130-EC02-08, consisting of:
 - a. Brainstorming, ie: This process is done in the forum meeting / poll with the participants are Engineering, Mekanikal, Inspection, Operation, Procurement section (supervisor level to the plant general manager) with a special agenda discussed about the process how to realize the work according to standard . The results are poured into the meeting minutes to be implemented.
 - b. Engineering details, ie detailed drawing documents, technical data, specifications, standard work to be performed (TEMA, ASME, WPS, ISO 9001: 2008, etc).
 - c. Planning (Planning), which is making the work schedule consists of procurement of materials, labor, machinery, tools, safety equipment, inspection and duration of work.
 - d. Implementation of work (exsecution), which is the implementation process work in accordance with the stages of work that has been made in the planning process with reference to engineering detail.
 - e. Submission of result of repair / fabrication to internal customer (Utility section-production department) accompanied with document of result of work and test.
3. The third process (Measurement, analysist & improvement): from the data retrieval and the second process activity parameters above is done the analysis process to improve the quality of repair / fabrication.
4. The fourth process (Management Response): the results of the analysis and recommendation of quality improvement are reported to the management to make the quality improvement policy.
5. The fifth process (Resource Management) proactively implement the results of the third and fourth process recommendations to ensure quality improvement.
6. Sixth process (feedback), feedback by communicating equipment performance 130-EC02-08 with internal customer (Utility section-production department) for quality improvement process.
7. The seventh process (Continual improvement of the quality management system) returns the second process cycle (realization product) as a proactive form of ISO 19001: 2008 system.

III. RESULT AND DISCUSSION

Technique of taking data is done directly (observation) starting from brainstorming stage until fabrication process. With the assessment criteria:

Quality management system, implementation and development and documentation.

Evaluation system based on evaluation status is done or not, that is, (Y) to "fit" and (T) to "inappropriate", Vincent Gaspersz, 2005)

Based on the model of quality management system based on the process in Figure 1, a tabulation of conformity of ISO 9001: 2008, see table 2.

Tabel 2. The results of observation

No.	Description	Action	CL	Section	Docm. No.	Success creteria	SE	Character
1.	Input							
	Reliability:			Internal Customer: Utility section (Customers requirement)				Uty: Primer C.
	procurement / repair / fabrication 130-EC02-08 / Able to cool oxygen to 60 °C - 65 °C without leak.							
2.	Realization product							
	a.Brainstorming	Meeting / discussion on repair / fabrication 130-EC 02-08/ Minutes		Input process (Internal Team C)		Minimum manager agreement of 3 out of 4 people	Y	Internal team: Mf and C
	b.Engineering detail	Pictures, technical data, specifications, TEMA standards, ASME and WPS.	6.3	Eng	SMT.PS. Eng-03	Distributed with related parties.	Y	Eng. Mf for MNJ and Uty. C
						Made to standard: THEME, ASME, WPS & Eng-03.	Y	
	c. Planning & Monitoring	Schedule execution	6.3	Eng section	SMT.PS.Eng-01	Work completed on time & according PS.Eng-01	Y	Eng.: Mf for Sub C MNJ, M, I and L.

Tabel 2. The results of observation (continuance)

No.	Description	Action	CL	Section	Docm. No.	Success criteria	SE	Character
		Implementat ion of repair / fabrication & Test.	6.3	M. section & team	SMT.PS.M-01, SMT.FM.Eng-03-03, SMT.FM.L.02-01, SMT.FM.I-01-02, SMT.FM.I-01-04, SMT.FM.I-01-10, SMT.FM.I-01-23, SMT.FM.I-01-25, SMT.PS.Eng-03, SMT.PS.Eng-01, SMT.PS.L-01	process of repair / fabrication activities according to standard, schedule and procedure	Y	Mechan ic & I: Mf for sub MNJ C
		e. Delivery of work	6.3	M section	SMT.PS.M-06	Made in format	Y	M: Mf for sub MNJ C
			6.3	Eng. section	SMT.PS.Eng-03	Made in format	Y	Eng: Mf for sub C MNJ, MR ISO & MTN
		3. Measurement, analysis & improvement	6.3	Eng. section	SMT.PS.Eng-01	The analysis is made according to the standard	Y	Eng : As a mf for sub MNJ, MR ISO & MTN
		Create an analysis report document and input addressed to the MNJ	6.3	Eng. section	SMT.PS.Eng-01	Documents are made to a standard and well documented	Y	

Tabel 2. The results of observation (continuance)

No.	Description	Action	CL	Section	Docm. No.	Success criteria	SE	Character
5.	Resource management		6.2	I, M, Eng & HRD.	SMT.PS. HRD-01, I-01, M-01 & Eng-03	Acceptance and training of employees in accordance with the standard format.	Y	HR: As a manufacturer for all sections & MNJ c.
6.	Feed beck	Communica tion between section production and engineering section.	4.2	Eng & PROD.	SMT.PS. Eng-01	The results are announced and acted upon	Y	Eng & Uty: Mf for major C of ISO quality system.
7.	Continual improvement of the quality management system	Proactive to implement ISO 9001: 2008	4.2	Secretariat of ISO 9001: 2008	SMT.MS-05	Document control	Y	Secretariat : Mf for major C of ISO system

Source: Data processed, 2017

Note: Section of Uty (utility), Eng (engineering), P (inspection), PROD (production), M (mechanical), L

(logistic), MR ISO (management presentative), MNJ (management), MTN (Maintenance Dept.), HR (human resource), C (costumer), CL (clausal), SE (status evaluation) & Mf (manufacture (er)).

From the observation result of field data and data processing, it can be seen that the quality management system for intercooler repair / fabrication project (130-EC-02-08) is carried out properly and correctly in accordance with what is stated in the document of the quality management system established by (utility, engineering, mechanical, inpection, logistic, HR and management). It is also reinforced that PT. KMI has implemented ISO since 2005 (running 11 years) and in the near future will implement ISO 9001: 2015. Interestingly from table 2, the NATURE column shows that in the application of internal process-based quality management models, all sections and management ultimately are both customer and producer. For that as a key keshasian implementation of ISO 9001: 2008 quality management system every organization position itself as internal customers as well as internal producers.

The successful implementation of ISO 9001: 2008 in meeting the expectations of internal-external customers (costumer satisfaction) are:

1. Internal audit system implemented once a year (until 2016 implemented 10 times) and external audit (until 2016 implemented 5 times).
2. Management support by establishing ISO secretariat that is managed consistently with specialized worker handling ISO.
3. Each level of employees conducted ISO training and planning this year will be practical training on ISO 9001: 2015.
4. Type of management applied is top-down.
5. All sections and also management position themselves as customers as well as internal producers.

IV. CONCLUSIONS

From observation data, data processing and analysis of application of ISO 9001: 2008 with approach model of processed quality management system as shown in Figure 1 in the implementation of repair / fabrication intercooler 130-EC-02-08 at PT. Kaltim Methanol Industri can be summarized as follows:

The implementation of ISO 9001: 2008 quality management system is systematically and well organized.

The role of top management is indispensable in making policies on improving quality and ensuring that it is properly and properly implemented.

All sections and also management are internal producers as well as internal customers.

In carrying out any activity based quality management system oriented to internal customer processes. The organization must position itself both as an internal manufacturer as well as an internal customer.

REFERENCES

- Bhuiyan, N. & Alam, N. (2004). ISO 9001:2000 Implementation – The North American Experience. *International Journal of Productivity and Performance Management*, v. 53, p. 10-17.
- BS EN ISO 9001:2008, (2008). *Quality Management Systems – Requirements* (United Kingdom, UK). Vincent Gaspersz, (2005). *ISO 9001:2000 and Continual Quality Improvement* (PT. Gramedia Pustaka. Utama, jakarta).
- Crosby, PB, , (1975). *Quality is Free*. (McGraw-Hill Book Co, New York).
- Deming, W.E, (1986). *Out of The Crisis : Quality Productivity Position* (Cambridge University Press, Cambridge).
- Durai, A. K. & V. Balakrishnan. (2011). A Study on ISO 9001 Quality Management System Certifications – Reasons behind the Failure of ISO Certified Organizations. *Global Journal of Management and Business Research*, Vol. 11 (9) pp. 0975-5852.
- Fonseca, L. (2015a). From Quality gurus and TQM to ISO 9001:2015: a review of several quality paths. *International Journal for Quality Research*, 9(1),167-180.
- Fonseca, L. & Domingues , J. P. (2016). *Iso 9001:2015 Edition - Management, Quality and Value*. *International Journal for Quality Research* 11(1) 1490158 ISSN 1800-6450.
- Heras, I. S., Casadesus, M. and Marimón, F., 2011. The impact of ISO 9001 standard and the EFQM model: The view of the assessors. *Total Quality Management & Business Excellence* 22(2), pp. 197-218.
- Jacob, R., Madu, C.N. and Tang, C., 2004. An empirical assessment of the financial performance of Malcolm Baldrige Award winners. *International Journal of Quality & Reliability Management*, 21(8), pp.897–914.
- Leung, H.K.N.; Chan, K.C.C. & Lee, T.Y. (1999). Costs and benefits of ISO 9000 series: a practical study. *International Journal of Quality & Reliability Management*, v. 16, n. 7, p. 675-690.
- Quazi, H. A., & Padibjo, S. R. (1998). A journey toward total quality management through ISO 9000 certification - A study on small and medium-sized enterprises in Singapore. *The International Journal of Quality & Reliability Management*, 15(5), 489-508.
- Rusjan, B. & Alic, M. (2010). Capitalising on ISO 9001 benefits for strategic results *International Journal of Quality & Reliability Management*, v. 27, n. 7, p. 756-778.
- Tarí, J.J., Molina - Azorín, J.F. and Heras, I. (2012). Benefits of the ISO 9001 and ISO 14001 standards: A literature review. *Journal of Industrial Engineering and Management*, 5(2), pp.297-322.
- Williams, J. (2004). The impact of motivating factors on implementation of ISO 9001:2000 registration process. *Management Research News*, 27(1), 74-84.
- Zaramdini, W. (2007). An empirical study of the motives and benefits of ISO 9000 certification: the UAE experience. *International Journal of Quality & Reliability Management*, 24(5), 472-491.

Food Production, Poverty Indices and Capability Related Variables (Case of Central Java and Yogyakarta Provinces)

Deffi Ayu Puspito Sari

Universitas Bakrie

E-mail: deffi.sari@bakrie.ac.id

Abstract. This paper tries the econometric analyses of poverty from the view point of the capability approach. Taking food production into consideration, this study shows that poverty indices are affected significantly by capability related variables. The objective of this paper is to analyze the relation of poverty from the consumption approach and the capability approach. Secondary panel data of head count index, poverty gap and poverty severity and variables of capability as well as food production were analyzed from 34 districts in Central Java and Yogyakarta Province. In conclusion, the relation observed in this paper is between capability poverty improvement and decreasing consumption poverty. Any economic development meant to increase income or consumption is important, but this is not the direct aim of the poverty reduction policies/programs. They should directly target the various elements of poverty and allocate budgets to such fields.

Keywords: Capability Approach, Poverty, Amartya Sen, Consumption Approach, Poverty Indices.

I. INTRODUCTION

Poverty is a problem faced by countries around the world. While the poor are mostly live in the villages and most of them are marginal farmers, poverty is a no exception for people live in urban area. The understanding of poverty itself widened by the concept of capability, thus poverty is not merely focus on income deprivation, but also refer to a condition with lack of ability to have fulfilled or productive life. Factors influencing poverty is also becoming diverse; from uncontrolled population growth, disaster, changes in environment such as uncertain climate variability that affects food production [1], epidemic or emerging diseases, and many other threats that can cause insecurity to a well functioning life. Previous study has discussed the definition and relation between consumption poverty and capability approach-poverty [2][3]. In this paper, analysis of those two variables was studied with additional influence of food production and impact of development in a longer time series.

This study used data from two provinces in Indonesia, in all, 50% of Indonesia's people call Java home. Java is also an island with the highest poverty incidence. The provinces of Yogyakarta and Central Java are examined in this study, since poverty is high in these areas. Figure 1 shows the poverty rate in Java in 2007. The highest head count index (P_0) values in Java in 2007 were in Wonosobo (32.29%), Rembang (30.71%), Kebumen (30.25%), and Purbalingga (30.24%), all of which are found in Central Java.

II. METHODS

Quantitative study was conducted to analyse secondary data that examined using econometric analysis. Panel data from 34 districts in Central Java and Yogyakarta for four years time series has analysed total 170 data set.

III. RESULT AND DISCUSSION

This study used data from two provinces in Indonesia, in all, 50% of Indonesia's people call Java home. Java is also an island with the highest poverty incidence. The provinces of Yogyakarta and Central Java are examined in this study, since poverty is high in these areas. Figure 1 shows the poverty rate in Java in 2007. The highest head count index (P_0) values in Java in 2007 were in Wonosobo (32.29%), Rembang (30.71%), Kebumen (30.25%), and Purbalingga (30.24%), all of which are found in Central Java.

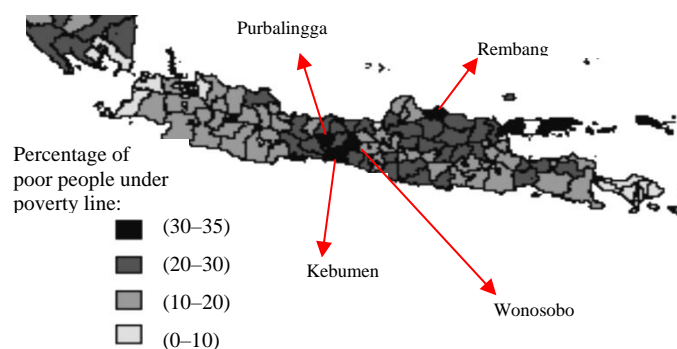


Figure 1. Head Count Index (P_0) in Java, 2007
Source: Authors' calculations, using data from BPS (2008) with R2.7.1, Maptools [4],[5]

To improve our understanding of poverty in these areas, the five districts with the highest access to capability and the largest poverty-index values are shown in Table 1. For the cases of Wonogiri and Gunung Kidul: among the 34 districts in the sample, both have the highest upland crop production rates and largest areas harvested. Gunung Kidul—most of which is arid, dry, and lacking in irrigation—is known as a poor area. It is commonly understood that these districts—which rely mainly on secondary crops—could have high poverty-index values. Having dry and arid land, the people of

Gunung Kidul cannot produce enough rice for their own consumption; cassava has been a substitute staple food. Realizing the poor conditions in these areas, the government has sought to provide support through various programs; for example, there were the underdeveloped village subsidy program (IDT) in Gunung Kidul, a transmigration and dam project in Wonogiri, and various programs that provide other basic needs such as health and sanitation. These programs could help mitigate poverty in these areas. Three districts in Yogyakarta province known to be poor are Gunung Kidul, Sleman, and Kulon Progo. In Gunung Kidul and Kulon Progo, access to sanitation and health services is the highest of all 34 districts. In Sleman, the high school completion rate and safe water access have been important in reducing poverty there.

In Table 1, Kebumen and Wonosobo (blue color) are among the highest-ranking districts in our sample, in terms of poverty-index values. The total area of Kebumen is around 1,281 km²; of that, about 40% is used in nonirrigated paddy-field and upland farming, and 15% in irrigated paddy-field farming. The people of Kebumen mainly depend on upland farming, with intercropping and double-cropping. Kebumen shows a high Engel coefficient, with most of the farmers being upland and poor. The poor's food expenditure, as a ratio of all expenditures, is high (i.e., number four, among our sample); a high food-expenditure ratio is a burden on the poor, as it restricts their investment in other capability variables. A policy regarding inexpensive food is still needed in this district. In Wonosobo, the elementary-school dropout ratio is the second-highest among our sample. Birth control program participation is high in this district, but access to other capability variables is low and cannot mitigate the impact of the deepness and severity of the poverty there.

In Table 1, no cities are found within the top five poverty-index values. Access to health is high in Semarang and Salatiga (yellow color), and access to education is high in Semarang and Surakarta. No cities have high elementary-

school dropout rates or high food expenditures. Urbanization has lifted many people out of poverty. In districts with more rural areas (and with fewer economic opportunities), investment in the basic-needs capabilities of health and education could help people there obtain many more opportunities and finally decrease the region's overall poverty-index values. The poor districts have been assisted by investments in areas related to capability-related variables. Based on the capability approach, we can consider such facilities as having contributed to a reduction in poverty.

Mubyarto [6] studies an interesting case of poverty in Yogyakarta. At the end of the 1960s, Yogyakarta was well-known as the third poorest province in Indonesia (after East Nusa Tenggara and West Nusa Tenggara), since 47% of its territory—namely, Gunungkidul—is an arid area. Most areas within Gunungkidul district and Kulonprogo district, and some areas in Bantul district, were dry and lacked irrigation. Locals consumed cassava or *gaplek* as staple foods. In 1973, Penny and Singarimbun published a monograph titled *Population and Poverty in Rural Java: An Economic Arithmetic from Sriharjo*, which not only made Sriharjo village well-known, but also made Yogyakarta province practically synonymous with poverty. Three decades later, Yogyakarta has changed from one of the poorest provinces in Indonesia to one of the most prosperous; it is tied with Jakarta for having the longest life expectancy in the country (i.e., 71 years in 2000). The key to this change is found in the HDI of Yogyakarta, which is the fourth-largest in Indonesia [7].

Supported by various projects, programs, and appropriate government policies, the rural poor can improve their capability. Investments in improvement in health and education could contribute to poverty alleviation in rural areas.

TABLE 1
TOP FIVE DISTRICTS IN ACCESS TO CAPABILITY VARIABLES AND HIGHEST POVERTY INDICES

	2008 Ranking (High to Low)				
	1	2	3	4	5
Head Count Index (P ₀)	Kebumen	Wonosobo	Rembang	Purbalingga	Kulon progo
Poverty Gap (P ₁)	Wonosobo	Kebumen	Purbalingga	Kulon progo	Brebes
Poverty Severity (P ₂)	Wonosobo	Kebumen	Purbalingga	Kulon progo	Sragen
Safe Water Access	Salatiga	Sragen	Kudus	Sleman	Semarang
Toilet Availability	Gunungkidul	Kulon progo	Salatiga	Wonogiri	Semarang
Birth Control Program Participation	Banjarnegara	Wonosobo	Semarang	Temanggung	Rembang
BCG Vaccination	Kulonprogo	Banyumas	Sragen	Temanggung	Semarang
Elementary-School Dropout Rate	Batang	Wonosobo	Pekalongan	Kendal	Pemalang
High-School Completion Rate	Semarang	Surakarta	Klaten	Sleman	Sukoharjo
Food Expenditure of Poor	Batang	Tegal	Pekalongan	Kebumen	Pemalang
Rice Area and Production	Cilacap	Grobogan	Pati	Brebes	Sragen
Upland Crops Area and Production	Wonogiri	Gunung kidul	Grobogan	Pati	Banjarnegara

Source: BPS (2009)

The capability approach defines poverty as capability deprivation. Amartya Sen [8] considered capability as the substantive freedom to functioning which enable people to enjoy leading the kind of valuable life. In the approach, functioning is the subject of the capabilities referred to: what a person is capable, wants to be capable, or should be capable of being/doing. Living may be seen as a set of interrelated functioning. A person's chosen combination of functioning, what one is and does, is a part of one's overall capability set, which is the functioning he or she is capable of doing.

Table 2 examines capability variables—not only health, education, and food expenditure, but also rice and secondary-crop production—and their relationships with poverty indices. Improvements in farmers' capability in increasing their production tends to reduce all poverty indices. Quantitative analysis was done using panel data and the following model:

$$y_{it} = \alpha + \beta_1 x_{it,1} + \dots + \beta_k x_{it,k} + u_{it} \quad (1)$$

where

y = Percentage of poor by head count index/poverty gap/poverty severity

α = Intercept

x = Variables related to capability variables

i = Area (districts)

u = Residual

t = Years of 2005–2008

Increasing the capability of farmers to improve their production skills tends to decrease all poverty indices. Quantitative analysis using panel data from year 2005 to 2008 of 34 districts in Central Java and Yogyakarta provinces was carried out, the result could be seen in Table 2.

Rice production and the area harvested are negatively related to all poverty indices (except P2-Severity Poverty- for rice production; it is negative, but not significant). This means that farmers become poorer if they decrease their production and the area harvested. For farmers under severe poverty indicated by P2, increasing their production may improve their life condition, but we find no significant impact. Farmers under severe poverty may have so small land that their rice production increase the production cost and have causes no significant impacts. However, when they increase their area under harvest, the result becomes significant at 10%, (meaning that improving the area under rice cultivation is important to alleviate the problems of farmers facing severe poverty). As smaller land cause the disguised unemployment of

farmers, the increase of cultivation reduces such unemployment problem and improves their economic condition.

Regarding secondary crops production and the area harvested, no results are significant. This explains why farmers in areas under severe poverty depend more on secondary crops farming than those under less poverty. Secondary crops are still considered as “catch crops” that poor farmers use to maintain their subsistence level of income.

Unsurprisingly, expenditure of the poor on food is positively correlated with poverty: share of their food expenditure increases causes the poverty ratio increases. Households under severe poverty have higher share of food expenditure compared to less poor households.

The education variables do not make a significant impact on poverty indices. It would require longer time for this sector to make an impact on poverty indices.

In the health sector, only BCG vaccination has significantly positive impacts on P₁-Poverty Ratio- and P₂. To guarantee the availability of BCG all children under the age of five, including those from poor families, community-based health services (Posyandu: *Pos Pelayanan Terpadu*) provides BCG vaccination free of charge. It is also available in hospitals, but not free. Statistical data record larger amount of beneficiaries of community-based services rather than those of hospitals. The result is significant for the variable of availability of private or common toilets. Variables of participation in birth control programs and access to safe water show negative signs, but not significant. Improving the health-related basic facilities of households tend to decrease their poverty indices.

It is noteworthy that the city dummy unsurprisingly gives a significantly negative result. This implies that the urbanization can improve the condition of poor areas.

As the improvement in capability related variables can reduce poverty indices, improvement in these variables could be used as means to decrease consumption poverty. New paradigm based on the reverse relation between ends and means can contribute to the removing consumption poverty through improving capability of people. This has very practical policy implication that the effective and proper budget allocation to the sectors which have close relation with consumption poverty. Poverty reduction program under such poverty reduction strategy can reduce the expense of budget and effectively reduce the share of poverty. The capability approach gives us a different view on poverty and poverty reduction policy.

TABLE 2
CAPABILITY VARIABLES CONTRIBUTING TO POVERTY REDUCTION

	R-squared	Constant	city	d05	d06	d07	d08	water	toilet	birthc	bcg	edr	hcr	Fep	rprod	scprod	rarea	scarea
P ₀	0.50	-9.10	-0.89	0.05	0.18	-0.68	0.01	-0.08	-0.10	-0.44	0.84	-0.09	-0.04	2.99	-0.09			
		*	***		**	***								***	**			
P ₁	0.40	-16.03	-0.91	0.25	0.18	-0.50	0.10	-0.09	-0.22	-0.46	2.05	-0.03	0.00	2.96	-0.10			
		**	***	***	*	**			**		*			***	*			
P ₂	0.30	-20.20	-0.85	0.32	0.17	-0.40	0.04	-0.16	-0.30	-0.52	2.92	-0.02	0.03	2.88	-0.10			
		**	***	***					**		**			***				
P ₀	0.49	-8.36	-0.48	0.04	0.20	-0.60	-0.03	-0.09	-0.16	-0.52	0.85	-0.19	-0.04	2.69		0.03		
			***		**	***			*					***				
P ₁	0.38	-15.09	-0.47	0.23	0.19	-0.41	0.06	-0.10	-0.27	-0.56	2.04	-0.14	-0.01	2.64		0.03		
		**	***	**	**	*			**		*			***				
P ₂	0.29	-18.59	-0.36	0.29	0.19	-0.30	-0.01	-0.17	-0.37	-0.65	2.84	-0.13	0.02	2.49		0.04		
		**	*	**					***		**			**				
P ₀	0.50	-9.17	-0.90	0.06	0.18	-0.68	0.01	-0.09	-0.10	-0.43	0.78	-0.08	-0.04	2.97			-0.10	
		*	***		**	***								***			**	
P ₁	0.40	-16.07	-0.94	0.25	0.18	-0.50	0.10	-0.09	-0.21	-0.46	1.98	-0.02	-0.001	2.96			-0.11	
		**	***	***	*	**			**		*			***			**	
P ₂	0.30	-20.24	-0.88	0.32	0.17	-0.41	0.04	-0.17	-0.29	-0.51	2.84	0.00	0.02	2.88			-0.11	
		**	***	***					**		**			***			*	
P ₀	0.49	-8.11	-0.47	0.04	0.20	-0.60	-0.03	-0.09	-0.16	-0.54	0.84	-0.19	-0.04	2.67				0.03
			***		**	***			*					***				
P ₁	0.39	-14.87	-0.47	0.23	0.20	-0.40	0.06	-0.10	-0.28	-0.57	2.05	-0.14	-0.004	2.63				0.03
		**	***	**	**	*			*		*			***				
P ₂	0.29	-18.39	-0.35	0.29	0.20	-0.29	-0.01	-0.16	-0.37	-0.67	2.85	-0.13	0.02	2.48				0.05
		**	*	**					***		**			**				

Note: ***Significant at the 1% level; **Significant at the 5% level; *Significant at the 10% level. n = 170, t = 2004–2008, i = 34 districts,

d city: city dummy (Kota Surakarta, Kota Salatiga, and Kota Semarang), where “city” refers to administrative level

city (*Kota*), others are districts (*Kabupaten*)

birthc: Log form of participation in birth control
program

bcg: Log form of bcg vaccination

hcr: Log form of high-school completion
ratio

fep: Log form of food expenditure of a
poor

rarea: log form of rice area
harvested

scarea: log form of secondary crop area
harvested

toilet: Log form of access to private/common
toilet edr: Log form of elementary dropout ratio

rprod: Log form of rice production

water: log form of safe water access

Source: Author, using R and data from BPS, various years.

Whereas the ends of poverty alleviation is to alleviate income poverty, various programs that invest in health and education could be the means to increasing poor people's capability, decreasing capability poverty, and generating greater earning power. Since the capability concept was introduced by Sen in the 1980s, the concept has been developed and implemented in various ways; many human development-related indices serve as examples. This study observations and analyses of the case of Indonesia supports Sen's idea. Economic development aims to increase income or consumption, but it is only one end of policies and programs. Poverty reduction policies directly target the various elements of poverty and allocate budgets to those areas.

IV. CONCLUSIONS

The econometric analyses in this study show that poverty indices are affected significantly by capability-related variables. As improvements in capability variables can reduce poverty index values, such improvements could be used to mitigate consumption poverty. A new paradigm based on the reverse relationship between ends and means can contribute to a removal of consumption poverty by improving the capability of people. The capability approach, in this way,

gives us a different view of poverty and poverty-reduction policies.

ACKNOWLEDGMENT

Author would like to thanks Prof. Hitoshi Yonekura, Dr. Shigekazu Kawashima, Dr. Nina Takashino and Dr. Fuyuki for their supervision.

REFERENCES

- [1] Deffi, A. P. S. (2010). Changes in the Upland Crop Farm Economy in INDONESIA. *TOHOKU JOURNAL OF RURAL ECONOMICS*, 28(2), 30-37.
- [2] Sari, D. A. P., & Kawashima, S. (2016). Poverty Mapping And Poverty Analysis In Indonesia. *Jurnal Agro Ekonomi*, 28(1), 95-111.
- [3] Sari, D. A. P. (2012). education, health, and basic needs: Increasing capabilities to escape poverty. *Three Reasons Why We Should Study Human Security*, 1, 8-24.
- [4] Badan Pusat Statistik (BPS). (2008). *Data dan Informasi Kemiskinan Tahun 2007*. Jakarta: CV. Nario Sari. Various issues of year 2003, 2004, 2005 and 2006, and 2008.
- [5] R Development Core Team. (2008). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, ISBN 3-900051-07-0, URL <http://www.R-project.org>.
- [6] Mubyarto. (2002). *Kemiskinan dan Ekonomi Rakyat Yogyakarta*. http://www.ekonomirakyat.org/edidi_1/artikel_1.htm.
- [7] Badan Pusat Statistik (BPS). 2009b. "Human Development Index (HDI) by Province and National", <http://dds.bps.go.id>
- [8] Sen, A.K. (1999). *Development as Freedom*. New York: Alfred Knof.

THE LEADERSHIP STYLE OF THE HEAD OF DISTRICT ON THE ERA OF SPECIAL AUTONOMY IN 3T (OUTPOST, OUTER AND REMOTE) AREA (A CASE STUDY ON THE REMOTE AREA OF THE DISTRICT OFFICE OF ITLAY HISAGE, JAYAWIJAYA REGENCY, PAPUA PROVINCE)

Rudi Hartono Ismail¹⁾, Nur Aini²⁾, Eko Pahabol³⁾

*¹⁾ Sekolah Tinggi Ilmu Sosial Dan Ilmu Politik Amal Ilmiah Yapis, Wamena, Indonesia
E-mail: stisipwamena@gmail.com*

*²⁾ Sekolah Tinggi Ilmu Sosial Dan Ilmu Politik Amal Ilmiah Yapis, Wamena, Indonesia
E-mail: nurainimtd_yamien@yahoo.co.id*

Abstract. The purpose of the study was to know the leadership style of the head of district on the era of special autonomy in the remote area of Jayawijaya Regency, Papua Province. The variables used in the study were leadership style variables with the indicators: autocratic leadership style, paternalistic leadership style, democratic leadership style, and participative leadership style. The population in the study was all government apparatus of the district of Itlay Hisage and the sample used was all government apparatus of the district which amounts to 17 people, thus were called total sampling. The technique of data analysis used in the study was quantitative analysis by using minimum and maximum score table which was simplified in the form of frequency table, then given a predicate. The study described the variables, tested theories and looked for generalization with a predictive value. With the enactment of special autonomy in Papua Province, the enactment of decentralization laws in Indonesia and in particular Law No. 21/2001 on Special Autonomy underwent amendment in Law No. 32/2004 on Regional Government. It was done to organize and manage the interests of local community according to their own initiative based on the aspirations and basic rights of Papuan people. The leadership style of the head of district on the era of autonomy in the remote area of Papua often use the participatory style. One of the reasons is that people who are still traditional, highly esteemed kinship and customs are very prominent in decision-making, in this case is the informal leader (tribal chief).

Keywords: leadership style, special autonomy in remote area

I. INTRODUCTION

In entering the era of globalization as it is today, one of the challenges faced by local government apparatus as the personification of government is the problem of professionalism and independence in providing services to society to ensure the survival in regional development to provide the increasingly complex of needs of life by exploiting all of their potential resources. It is a logical consequence of the constitution of Law No. 32/2004 on Regional Government.

The Law No. 21/2001 (State Gazette No. 135/2001 and Supplement to the State Gazette No. 4843) which consists of 79 articles regulates the authorities of Papua Province in implementing Special Autonomy. Papua Province is the Province of Irian Jaya which later became Papua Province and West Papua Province and are given Special Autonomy within the framework of the Republic of Indonesia. Special Autonomy itself is a special authority recognized and granted to Papua Province, including the provinces of the division of Papua Province, to organize and manage the

interests of local community according to their own initiative based on the aspirations and basic rights of Papuan people.

Papua Province consists of regency and municipality regions respectively as Autonomous Regions. Regency/municipality regions consist of a number of districts. District is the working territory of the head of district as a regency/municipality regional apparatus; district consists of a number of villages. Village is a law community unit which has the authority to organize and manage the interests of local community based on local origins and customs which are recognized in national government system and located in regency/municipal regions.

The Provincial Government of Papua Province consists of Papuan Provincial Legislative Council (DPRP) as the legislative board, and the Provincial Government as the executive board. In implementing Special Autonomy in Papua Province, Papuan People's Assembly (MRP) was formed which is a cultural representation of indigenous Papuans who have certain authorities in protecting their

rights, based on respect for customs and cultures, women's empowerment, and the harmony of religious life.

The implementation of governmental system requires the implementation of various policies and programs from all levels of government agencies. The implementation of the programs and the achievement of existing development goals are an ongoing activity. The obstacles which are often encountered in the implementation of developmental programs are the lack of community activity, the limited apparatus ability, especially at the village and district levels. The head of district is the element of leadership in district region with the duty to serve community in the framework of efforts to achieve the government's goals and create a law-abiding, modern civilized, democratic, prosperous, just and moral high society, and is able to keep the unity of nation with full loyalty to Pancasila and 1945 Constitution.

The duties of the head of district in order to achieve organizational goals effectively and efficiently through an approach to avoid overlapping in duties service and the lack of harmony between one part with the others, so that the limited resources of the organization can be utilized as much as possible. In order to prevent non-conformity, in the implementation of duties or conflicts between units, a division of duties and convergence in a team work alignment are necessary to integrate and synchronize every activity or action of organizational units towards the achievement of organizational goals.

The head of district is an element of state apparatus which is assigned in the district to serve the community honestly, fairly and equitably in the administration of the state, governmental and developmental duties. In such positions and duties, the head of district must be neutral from the influence of all political groups and parties as well as non-discriminatory in serving the public.

According to *Stoner in Harbani Pasolong 2010*, leadership style is a variety of behavior patterns favored by a leader in the process of directing and influencing workers. Stoner divided leadership style into two: (1) Duty-oriented style of supervising employees strictly to ensure well performed duties, (2) Leader-oriented style which more emphasizes on motivation than controlling subordinates.

Leadership style is a behavior which becomes the types or traits that leaders use in leading both morally and materially in order to achieve the organizational goals effectively and efficiently. In general, there are two leadership styles, i.e., authoritarian leadership and democratic leadership.

District region is the division of administrative area under regency/municipal region led by a head of district. In implementing their duties, the head of district is assisted by the district apparatus and is accountable to regent/mayor through the regency/municipal secretary. Due to their highest position in district area, the head of district is the leader in district governmental organization. Thus, the head of district is required to have a leadership style in bringing and influencing subordinates and societies to be able to work together to achieve the organizational goals.

The district of Itlay Hisage is one of the government agencies in Jayawijaya Regency region led by a head of district named Azer Hisage, S.IP. The district of Itlay Hisage is one of the areas of division from Jayawijaya Regency and is still lagging behind in all aspects of development. One of the indications is the district location which is still in a rural environment.

In relation to the topic of the study, which is the leadership style of the head of district on the era of Papua Special Autonomy in 3T (Outpost, Outer, and Remote) area with the case study in the remote area of the district office of Itlay Hisage, Jayawijaya Regency, Papua Province. The initial observation of the researchers indicated that in implementing his function as a leader, there is still a leadership function which has not been implemented by the head of district optimally related to the leadership style. There are still employees who do not perform the duties well due to the low ability. It results in the difficulties of the head of district to make decisions, such as the delegation of duties assigned, and sometimes he worked beyond his responsibilities. It is also because of the lack of openness from him towards the subordinates.

The head of district of Itlay Hisage in implementing all the official and governmental duties are assisted by 17 employees divided into several section areas. Each section has a leader and assisted by several other employees.

One of the causes of the remaining problems is due to the leadership function in leading subordinates in the implementation of duties has not been optimized yet by the leaders in governmental bureaucracy. It stands to reason that many of today's problems arise due to the lack of superior and effective leadership, which can be solved by applying exactly the quality of leadership which has been disappeared in the society. If problems are to be solved by humans, then an effective leadership must show the way.

As a coordinator, the head of district of Itlay Hisage has the duties to coordinate the implementation of programs in the district of Itlay Hisage, Jayawijaya Regency, with a quality leadership in directing subordinates to achieve the desired goals. The success or even failure of an organization is largely determined by the leadership, thus the district of Itlay Hisage, Jayawijaya Regency, must have an absolute capable and qualified leader in implementing the governmental and developmental duties.

Based on the description above, the researchers were interested to conduct a research on the topic: **THE LEADERSHIP STYLE OF THE HEAD OF DISTRICT ON THE ERA OF SPECIAL AUTONOMY IN 3T (OUTPOST, OUTER AND REMOTE) AREA (A Case Study on the Remote Area of the District Office of Itlay Hisage, Jayawijaya Regency, Papua Province).**

A. Review of Theory

1. Understanding Leadership

The word "leadership" is rooted from the word "lead" which means guide with the verb "leading" which means to guide

and the noun “leader” which means a person who leads or guides (**Pamudji 1995:5**).

Meanwhile, according to **Irmaya (1997:11)**, leadership is an ability of a leader to control, influence the thoughts, feelings and behaviors of others, to achieve predetermined goals.

Yulk (1998:4) suggested that: “Leadership is defined as a process of influencing, interpreting events for the followers, which is seen from the targets of a group/organization, the organizing process of work activities to achieve these goals, the maintenance of cooperative relationships and team work, as well as the support and cooperation of people outside the group/organization.”

Leadership is a part of management, which deals with the direct supervision of a subordinate. It also provides a reasonable equation in technical equipment and distribution to the extent of becoming one of the most important factors in determining the effectiveness of a group or organization.

Meanwhile, according to **Moekijat (2000:98)**, leadership is a special type of power relationship characterized by encouraging the group members, that other members of the group have the right to determine the behavioral patterns in order to pay attention to activities first as a group.

According to **Dubin in Sutarto (2001:87)**, leadership uses an authority to make decisions. Furthermore, **Irmin (2004:87)** defined leadership as a group of organized people in their efforts to set goals.

Terry in Rivai (2004:167) suggested that leadership is a relationship within a person with other person or leader, which influences others to cooperate consciously in relation to the duty of achieving the leader’s goals.

The existence of leader is more important in a situation with the diverse characteristics and capabilities of the members of organization, but they are still required to be able to contribute optimally to the organization. To achieve the established goals, the existence of a leader is required, which is supported by the government apparatus or personnel as the implementer of activities and the driving force of the success of the implementation of the main duty of organization in achieving their goals. It is because in an organization there is always a series of hierarchy, with the limitation of each authority and duty, and there is always the dynamics of superiors and subordinates which are interconnected and cooperate in efforts to achieve goals (**Nawawi, 1992:8**).

2. Leadership Style

According to **Siagian (2003:27-45)**, there are four leadership styles: autocratic leadership style, paternalistic leadership style, democratic leadership style and participative leadership style:

a. Autocratic Leadership Style

The autocratic leadership style, in terms of its perception, is the style of a very selfish man. Their enormous egoism will encourage them to twist the actual reality so that it conforms to their subjective interpretation of discipline to subordinates in the organization. According to **Siagian (2003:28)**,

autocratic leaders will translate the high discipline of work which is shown by their subordinates as a manifestation of the subordinates’ loyalty to them, when in fact the work discipline is only based on fear, not loyalty. Furthermore, **Siagian** explained that the enormous ego fosters and develops the perception that the organization goals are identical with their personal goals, therefore the organization is needed as a means to achieve their personal goals.

According to **Winardi (2002:144)**, autocratic or authoritarian leaders generally have negative traits. Thus, this type can not be counted, especially when associated with the efforts to improve work productivity, which requires a democratic atmosphere.

According to **Siagian (2003:32)**, there are seven characteristics of autocratic leadership style. The characteristics are as follows:

- 1) The exaggeration of self-assertion as a symbol of the existence of the organization.
- 2) The first characteristic is often followed by the second characteristic, i.e., their frequent self-assertion as the “sole ruler” of the organization.
- 3) Usually afflicted with megalomaniac disease, in the sense of “obsession to honor” and fond of various ceremonies depicting “their prowess”.
- 4) Their personal goals are identical to the organization goals.
- 5) Because the employees’ devotion is interpreted as a personal devotion, subordinates’ loyalty is a very strong demand.
- 6) Often determine and apply harsh organizational discipline and implement it with a rigid attitude.
- 7) Normally aware that their autocratic leadership style is only effective if they implement strict control or supervision.

Furthermore, **Siagian (2003:125)** explained that this is not the ideal type due to its negative traits. However, it has also been emphasized that this characteristic of leader need to be known in order to bring around a leader with this “comfy” leadership style to draw on a much more effective leadership style. According to **Tambunan (2004:78)**, autocratic leaders tend to embrace an organizational value which revolves around justifying any means taken to achieve their goals. Any action will be judged to be true if it facilitates the achievement of the goals and all obstructing acts will be regarded as bad, thus will be removed, even with violence.

According to **Weleh (2002:225)**, autocratic leaders show various attitudes which highlight their “ego”, among others:

- 1) The tendency to treat subordinates similarly to other tools in the organization.
- 2) Orientation priority towards the implementation and completion of duties.
- 3) An indifference to subordinates in the decision-making process.

Rivai (2014:137) explained that such leaders would not accept the advice and view of their subordinate, let alone the criticism that would necessarily mean the subordinate was

undermining their power. Behavior which accentuates formal power becomes one of the main characteristics of autocratic leaders. According to **Siagian (2003:178)**, autocratic leaders have the attitude and behavior of the leadership style which: 1). Demands full obedience from the subordinates, 2). Shows strength in upholding discipline, 3). Strong in giving orders or instructions and 4). Uses a punitive approach or punishment.

Siagian (2005:118) explained that if only effectiveness is expected from a leader in driving the organization, an autocratic type might be able to handle the various functions of leadership well in the sense of achieving the goals and targets set by the leader.

Moekijat (2000:112) argued that the effectiveness of autocratic leadership is strongly linked to the power to take punitive action. Usually if the power to take a punitive action is no longer exist, the obedience of subordinates would immediately loosened and the work discipline would soon decline.

b. Paternalistic Leadership Style

Paternalistic leaders according to **Siagian (2005:133)** are common in traditional communities. Generally in agrarian communities, the popularity of paternalistic leaders is used as a place to ask and to obtain guidance to attempt to treat all persons in the work units listed in the organization as fair as possible. In such organization there is no assertion of a particular person or group except the leaders with the dominance of their existence.

Siagian (2005:85) explained that the experiences of the practicals and the researches of experts show that many officials in different types of organizations, including business organizations, are often paternalistic. The characteristics are the merging of some positive traits with negative traits. Thus, the active mastery and ability to use these characteristics in any situation become very important. Moreover, these activity and abilities are only style, not as a trait. Furthermore, **Siagian (2005:98)** explained the characteristics of paternalistic type, which are:

- 1) Asserting their existences as the symbol of organization. Paternalistic leaders are pleased to stand out as a "figurehead".
- 2) Often showing the most knowledgeable attitude, therefore, in practice often showing the style of "patronizing" and the subordinates must carry out what they do.
- 3) Due to treating subordinates as immature, paternalistic leaders will not encourage the independence of subordinates for not wanting them to make mistakes that will result in organizational losses.
- 4) Protecting, in practice it is reflected in the management attitude of not encouraging their subordinates to take a risk for fear of negative impact on the organization.
- 5) Doing centralization in decision-making, i.e., the leaders are the center of decision-making, the authorization of decision-making to the lowest echelon in the organization is not exist.

- 6) Doing strict supervision, this trait is a product of other characteristics.

According to **Jarmanto (2003:45)**, the perception of paternalistic leaders about their roles in the life of organization can be said is filled with the expectation of their followers. In general, the expectation is in a desire that their leaders can play a role as a father who is protective and can be functioned as a place to ask for instruction. **Anoraga (2001:124)** explained that the consequences of such behavior are the subordinates are not utilized as a source of information, idea and suggestion, which means that the subordinates are not motivated to think innovatively. Excessive emphasis on togetherness does not allow the individual growth and development in accordance with each talent and potential, which is really needed in the order of modern organization life.

c. Democratic Leadership Style

The word "democracy" is etymologically rooted from the word "demos" which means the people or inhabitants of a place, and "createin" which means power or sovereignty. Thus, "demos-createin" or democracy is the state of a country in which on the governmental system, the sovereignty is among the people, and the supreme authority is in the decisions with the people (**Syafie, 2001:129**). According to Syafie, there are several factors of a nation having a democratic leadership style, among others: 1). The factors of the nature and constitution of the led country, 2). The factors of the regime in power, 3). Geographical factors, 4). The factors of homogeneous citizens, and 5). Historical factors.

According to **Siagian (2003:125)**, democratic leaders are not always the most effective leaders in the life of organization. It is because sometimes, in terms of acting and making decision, there can be limitations as a consequence of subordinate involvement in the decision-making process.

Many people say that the democratic type is the type desired by every subordinate in an organization. Most of the time it is true, however it should not be forgotten that even this type can not be applied consistently and continuously regardless of the organizational situation faced and can not be separated from the subordinates' characters. Clearly, democratic leadership style may be "adjusted" a little bit to the real situation faced by the organization, which means in other situation, other leadership style should be used (**Siagian 2003:128**).

According to **Moekijat (2008:88)**, democratic leaders realize that there will be a tendency among the officials, a lower leader, and among the members of the organization to see the most important role. A formula which seems very simple, but actually is the source of all perceptions, attitudes, behaviors and leadership styles of a person. Such values are not owned by autocratic leaders, including other leadership styles. Furthermore, **Sedarmayanti (2006:99)** stated that humane approach, the act of educating, is not the weakness of democratic leaders, but as one source of strength

possessed by them. It is said to be one source of strength because with such attitude, they will be a respected democratic leader. It is also because their behaviors in the life of organization always encourage their subordinates to cultivate and develop innovation and creativity by being serious in listening opinions, suggestions, and even criticisms of others, especially their subordinates. Leadership will not be afraid to let the subordinates initiate although there is possibility that the initiative will be related to error. Yet, a democratic person is always on the side of subordinates under any circumstances. And one of the characteristics which should be noted from democratic leaders is that they always show appreciation to their high-achieving subordinates.

d. Participatory Leadership Style

Participatory leadership style generally develops towards mutual trust between leaders and subordinates. Leaders tend to trust the ability of staff to handle their responsibilities. Meanwhile, consultative contacts continue. In this leadership style, the leaders are more listening, accepting cooperation and encouraging in the decision-making process (**Salusu, 2006:164**). In the participative process, both supervisor and subordinate are jointly responsible for what is being experienced by the organization for the sake of their progress. Psychologically, the work performance of the employees improves because they do not feel being subordinated by their supervisor. **Permadi (2006:15)** provided an explanation that participative leadership style is an attempt by a manager in managing a strategy to find fault in promoting and establishing a design. The method is to exchange ideas or get conclusions (advice, suggestions, comments from subordinates) in making decisions before planning a change/innovation within an organization.

Siagian (2003:267) assumed participative leadership style as a creative managerial effort due to the generosity of the managers/subordinates. These were rarely done by the old time leaders. Thus, it can be concluded that the participative leadership style is a modern leadership style.

II. METHODS

The type of study was done by descriptive approach. The technique of data analysis used in the study was quantitative analysis by using minimum and maximum score table which was simplified in the form of frequency table, then given predicate. The study described variables, tested theories and looked for generalization with a predictive value.

III. RESULT AND DISCUSSION

From the results of data analysis, the indicators were discussed as follows:

The indicators of autocratic leadership style were analyzed based on statements which consisted of leaders ignoring subordinates in decision-making, firm leaders in action, leaders applying strict work discipline, leaders demanding

subordinates to be obedient in work, and leaders are loud in giving orders.

The results of data analysis indicated that the average score of the indicators of autocratic leadership style in the leadership style of the head of district on the era of Papua special autonomy in 3T (Outpost, Outer and Remoten) area was 54.6. Thus, the indicators of autocratic leadership style were categorized as good.

This suggests that on the average, the head of district involves subordinates in decision-making, sometimes firm in action, applying strict work discipline, demanding subordinates to be obedient in work, and loud in giving orders.

Paternalistic leadership style. Analysed through the statement of the leader in running Government which is informal, the leader is protective, the leader supervises strictly and firmly, the leader always makes the right decision. The result of the average analysis was 52.2 and categorized as agree or good.

This indicates that the head of district always involves subordinates in running Government which is informal, protective, strict and firm supervision, and making the right decision.

Democratic leadership style was analyzed through the statement of the leader who respects the opinions or ideas submitted by the subordinates, the leader accepts every opinion proposed by the subordinates, the leader makes a decision based on the ideas of the subordinates, the leader always encourages the subordinates to be creative in work, the leader is willing to delegate authority in making decisions. The results of the average analysis from the indicators of democratic leadership style was 64.6 and categorized as agree or good.

Thus, it can be concluded that the head of district appreciates the opinions or ideas submitted by the subordinates, accepts the opinions of the subordinates, the decisions are based on ideas or input from the subordinates, encourages the subordinates to be creative in work, is willing to delegate authority in making decisions.

Participatory leadership style. The data analysis shows that the leader's always listens to the opinion of the subordinates, the leader and the subordinates are responsible for the problems which occur, the leader always exchange ideas with the subordinates, the leader always creates a sense of comfort in the organization, the leader always believes in the subordinates in implementing the duties. The results of the average analysis of the indicators of participatory leadership style was 65.6. Thus, the indicators of participative leadership style were categorized as agree or good.

The results of observation indicated that the head of district always listens to the opinion of subordinates, together with the subordinates, responsible for the problems which occur, constantly exchanges ideas with subordinates, creates an atmosphere of comfort in the organization, always trusts subordinates in implementing the duties.

All of the above leadership styles took place well in the district of Itlay Hisage, however there are still external

factors which can influence their leadership style such as the condition of geographical environment, culture or customs which are highly respected, the knowledge or the educational background of the apparatus and society. Moreover, informal leadership is still dominant in decision-making so that the head of district in making decisions sometimes is constrained from these factors. Hence, this study has been not optimized, which means this study is still categorized as below average. In the discussion of the results of study, the calculation of the average analysis variable of leadership style is as follows:

Table 1
The Average of Analysis Variable Indicators of Leadership Style

No	Indicator	Average score
1	Autocratic Leadership Style	54.6
2	Paternalistic Leadership Style	52.2
3	Democratic Leadership Style	64.6
4	Participative Leadership Style	65.6
Average score		59.25

The table 1 above shows that the score of the indicators of autocratic leadership style was 54.6. The indicators of autocratic leadership style were categorized as agree or good. The indicators of paternalistic leadership style was 52.2 and categorized as agree or good. The indicators of democratic leadership style was 64.6 and categorized as agree or good. The indicators of participative leadership style was 65.6 and categorized as agree or good.

The table 1 above shows that the variable average of the leadership style of the head of district of Itlay Hisage, Jayawijaya Regency was 59.25 and categorized as good. However, the leadership style of the head of district of Itlay Hisage, Jayawijaya Regency, mostly uses the participative leadership style of 65.6. According to the theory of **Siagian (2005:133)**, paternalistic leadership style is in many traditional society, generally in agrarian society, the popularity of paternalistic leaders is used as a place to ask and to obtain guidance to attempt to treat everyone from the work union registered in the organization as fair as possible. Thus, the leadership style which should be more assertive as the theory referred to is the paternalistic leadership style, but in reality, the results of research are apparently different from the theory referred. One of the reasons is that the people are still traditional, upheld kinship, and the customs are very assertive in decision-making, in this case is the informal leader known as Tribal Chief.

If the initial observation of researchers are paired with the results of research that the autocratic, paternalistic, democratic, and participative styles have been done by the head of district of Hisage and proven on the results of research. Some works were completed before the time specified and understand the competence of works, and can improve Employee Performance at the district office of Itlay Hisage, Jayawijaya Regency. This is in accordance with the

opinion of **Siagian (2005:118)** which explained that if only the effectiveness of a leader is expected in driving the organization, the type of autocratic style may be able to perform various functions of leadership well, in the sense of achieving the goals and various aims which has been specified by the leader. The main problem is that the success of the subordinates usually expects a paternalistic person with an unselfish character but paying attention to the interests and welfares of their subordinates. Instead, paternalistic leaders expect that their presence or existence in the organization is no longer questioned by others or subordinates. Whereas democratic leaders and participative leaders still can be questioned or exchange ideas and receive input from others or subordinates.

IV. CONCLUSIONS

Based on the results of research and discussion on the leadership style of the head of district on the era of Papua Special Autonomy in 3T (Outpost, Outer and Remote) area in a case study in the remote area of the district office of Itlay Hisage, Jayawijaya Regency, Papua Province, the head of district used more the participatory style, in which according to theory he should use more the paternalistic leadership style. However, the reality was different than the theory. The reasons are external factors which can influence his leadership style such as the condition of geographical environment, culture or customs which were highly respected, the knowledge or educational background of the apparatus and the community, as well as the informal leadership were still dominant in decision-making so that the head of district in making decisions was sometimes constrained by these factors.

REFERENCES

- [1] Aksara. Henry. 2003. *Leadership Roles Within The Organization*. Jakarta: Bina Rupa Aksara
- [2] Anoraga, Pandji, 2001. *Leadership Psychology*. Rineka Cipta, Jakarta: Bethel,
- [3] Hasibuan. 2003. *Human Resource Management*. Jakarta: Bumi
- [4] James. 2003. *Strategic Management And Effective Leadership Theory*. Jakarta: PT. Rineka Cipta.
- [5] James K, Van Fleet, 1973. *Organizational Management*, Jakarta: Mitra Usaha
- [6] Kartini, Kartono 1994, *Leader And Leadership (What is a Abnormal Leader?)* Cv Rajawali, Jakarta.
- [7] Kamal, 2009. *Leadership Within The Organization*. Jakarta: Bina Rupa Aksara.
- [8] Koentjaraningrat. 1991. *Leaders Within The Organization*. Jakarta: Politea.
- [9] Moleong, Lexy J. 2007. *Qualitative Research Methodology*. Bandung: Remaja.
- [10] Mulyadi. 2010. *Leadership And Organizational Behavior*. Jakarta: PT. Raja Grafindo Persada.
- [11] Purwanto, Yadi, 2001. *Organization Management Papers*. Jakarta: PT. Cendekia Informatika

- [12] Rivai, Veithzal. 2010. *Leadership And Organizational Behavior Vol.II*. Jakarta: PT. Raja Grafindo Persada.
- [13] Robbins, 2001, *Leader And Leadership, Mar'at Translation*, Ghalia Indonesia, Jakarta.
- [14] Roman. 2008. *Leadership Role in Decision Making*. Jakarta: Rineka Cipta.
- [15] Sedarmayanti, 2007, *Human Resource Management, Bureaucratic Reform And The Mangement Of PNS*. Bandung: Afrika, Aditama.
- [16] Siagian, Sondang, SP., 2003. *Theory And Practice Of Leadership*. Rineka, Cipta Karya.,
- [17] Sugiyono, 2005, *Administrative Research Methods*, Cv Alfabeta Bandung.
- [18] -----, 2008, *Business Research Methods*, Alfabeta, Bandung.,
- [19] Syafie, K, Inu, 1998, *Government Management*, PT. Pertja Jakarta
- [20] Syaukani HR. Afan Gaffar dan Ryas Rasyid. 2002. *Regional Autonomy Within The Unitary State*. Yogyakarta: Pustaka Pelajar.
- [21] Stoner dalam Harbani Pasolong 2010, *Gaya kepemimpinan(leadership style)*
- [22] Usman, Husaini. 1996. *Social Research Methodology*. Jakarta: Bumi Aksara.
- [23] W. Brown steven, 1998. *Leadership Management*. Jakarta : Profesional Books.
- [24] Law No.21/2001, *on Special Autonomy For The Province Of Papua, And The State Gazette R.I No. 135/2001, TLN No. 4151/2001*
- [25] Law No. 32/2004, *About Area Government*.
- [26] Bupati Jayawijaya No. 673/2001, *on The Transfer Some of the authority from the Bupati to Disrict Heads of Jayawijaya District*.
- [27] Government Regulation No. 53/2005, *The Regulation Of Jayawijaya District No 11/2011, about the Division of Itkay Hisage District, on October 9/2005*.