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**THE INTERNATIONAL SEMINAR ON BUSINESS, ECONOMICS,
SOCIAL SCIENCES AND TECHNOLOGY (ISBEST) 2018**

**COLLABORATIVE INNOVATION OF
ECONOMIC SOCIETY IN THE ERA OF THE
FOURTH INDUSTRIAL REVOLUTION
(INDUSTRY 4.0)**

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A PERSONAL MESSAGE FROM ISBEST

On behalf of the committee of International Seminar on Business, Economics, Social Sciences and Technology (ISBEST) 2018, I am more than delighted to welcome all the distinguished guests and participants who have come today. We would like to express our sincere gratitude to The Rector of Universitas Terbuka, guest speakers, our partner, PKN-STAN, our sponsors Bank BRI and Bank Mandiri, and other parties involved in making this seminar happen. Thank you.

ISBEST 2018 is hosted by Faculty of Economics Universitas Terbuka (Open University) Indonesia. With over 40,000 students enrolled in its undergraduate and graduate programs, FE-UT is one of the most well-reputed Indonesian higher-education institutions in open and distance learning disciplines. Jakarta is also known as the vibrant city, therefore, makes a great location for an interesting and productive seminar on multi-disciplinary studies of business and economics.

Through this conference, we would like to engage with all of you in an open and constructive dialogue about “Collaborative Innovation of Economic Society in the era of The Fourth Industrial Revolution (Industry 4.0).

Jakarta, 5 December 2018

Amalia Kusuma Wardini, S.E., M.Com., Ph.D.
Chairman

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INFLATION AND GROWTH: RELATIONSHIP AND ESTIMATION OF THRESHOLD AT REGIONAL LEVEL IN INDONESIA

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Abstract

Recent research states that the relationship between inflation and economic growth is not linear. When inflation exceeds a threshold, it will negatively affect economic growth. This study aimed to investigate the linear and non-linear relationships between inflation and economic growth in Indonesia using provincial panel data. In linear relationships, inflation in Indonesia has a negative effect on economic growth as well as government expenditure and population, while investment and economic openness have a positive effect on economic growth.

According to a non-linear test's results, inflation in Indonesia negatively affected economic growth when it exceeded 9.59 percent. But when it stood below 5.09 or 9.59 percent, inflation became positively related to economic growth. Moreover, economic growth slowed down when inflation exceeded 5.09 percent but was still below 9.57 percent. The inflation threshold for the western region of Indonesia (5.75 percent) was smaller than that of the eastern region (9.64 percent). Inflation in both regions had a significant negative effect on economic growth when it exceeded respective threshold value.

Inflation control policies must still be implemented to reduce the adverse effects of inflation because volatile inflation is not good for the economy. This study suggests the authorities apply different inflation control policies for the western and eastern regions of Indonesia.

Keywords: inflation threshold, economic growth, non-linear

1. Background/Objectives and Goals

Recent research states that the relationship between inflation and economic growth is not linear. When inflation exceeds a threshold, it will negatively affect economic growth. Several studies have examined the relationship between inflation and economic growth and sought the threshold point, but the number of studies that examined the relationship between the two macroeconomic indicators level using panel data at the national is still small. Most studies used panel data to study the relationship between two indicators in different countries, which were grouped into developing and developed countries. Such studies focused on researching most part of Indonesia using time-series data (Chowdurry and Siregar, 2004; Chowdurry and Ham, 2009; Widaryoko, 2013).

Aziz and Nasruddin (2016) examined the relationship between inflation and economic growth in Indonesia using provincial panel data, but the research period was very short, which was from 2010 to 2016, leading to an elimination of influence during a crisis such as the 1998 crisis. The inflation threshold found in that research was 4.64 percent. This research will improve Aziz and Nasruddin's research by extending the time span from 1994 to 2017. This was done in order to capture the influence of the economic crisis that occurred in 1998.

2. Methods

This study used provincial panel data in Indonesia from 1994 to 2017 according to data availability. The dependent variable used was GDRP per capita growth as an approach to economic growth. The main independent variable was Inflation, while the independent variables serving as controls consisted of Government Expenditure, Population Growth, Investment, and Economic Openness.

The inflation data available were only those of the city level, namely a sample of the Cost of Living Survey (SBH). To calculate the provincial inflation rate, the inflation rate was weighted by city. The variable Economic Openness was calculated from the total value of exports and imports per province divided by the total GDRP of each province. The division of Indonesia into western and eastern regions was based on Utari et al.'s (2015) research. The western region of Indonesia includes Sumatra and Java, while the eastern region includes Kalimantan, Sulawesi, Bali-Nusa Tenggara, and Maluku-Papua.

The method used to determine the linear relationship between inflation and economic growth was the panel fixed effects model. Meanwhile, the method used

to find the inflation threshold in a non-linear relationship was the panel threshold fixed effects model.

Panel threshold regression analysis is a developed version of multiple linear regression analysis, which essentially divides an estimation unit into two or more regimes. The estimation of the model can be carried out in two ways, the first of which is through ordinary least squares (OLS) if the threshold value is known and the second is through conditional least squares if the threshold value is unknown. The principle of conditional least squares is to find the threshold value and slope parameter value together. Hansen (1997) recommends the use of the minimal residual sum of squares (RSS) model. Enders (2015) suggests that around 15% minimum value and 15% maximum value on the threshold variable are not included as candidates for the threshold value to guarantee the adequacy of the degree of freedom in each regime.

3. Results

During the period 1994–2017 the movement of inflation showed a downward trend. Even after the Inflation Targeting Framework (ITF) was implemented in 2005, inflation on average stood at 5–6 percent. As shown in Table 1, the inflation in the eastern region of Indonesia was higher than that in the western region of Indonesia. By contrast, the economic growth per capita in the eastern region of Indonesia was lower than that in western region of Indonesia. Interestingly, during the 1998 economic crisis, the economic growth in the western region of Indonesia was more deeply suppressed than that in Eastern Indonesia. The likely reason for this phenomenon is that the economy of the eastern region of Indonesia was more reliant on the agricultural sector, which at the time of the 1998 crisis proved able to withstand shocks.

Table 2 shows the relationship between Inflation and linear Economic Growth. Inflation had a significant negative effect on the Economic Growth at both regional and national levels. Any 1 percent increase in Inflation would significantly cause a 0.12 percent decline in Economic Growth for the national level, 0.13 percent for the western region of Indonesia and 0.11 percent for the eastern region. This is consistent with the findings of Friedman (1956), Stockham (1981), De Georgio (1992), Barro (1996), Andres and Hernando (1997), Gylfason (1998), and Saed (2007). Gokal and Hanif (2004) state that inflation can inhibit the optimization of the production of goods and services because of the high cost of production. In the end, it will decrease the output.

Investment Growth had a significant positive effect on Economic Growth in both regional and national levels. Every 1 percent increase in Investment would significantly lead to a 0.12 percent increase in Economic Growth for the national level, 0.13 percent for the western region of Indonesia and 0.12 percent for the eastern region. The theory put forward by Harrold-Domar in Todaro Smith (2011) explains that the main strategy of a country to grow at the stage of reaching takeoff is the mobilization of savings or investment funds, which will accelerate economic growth.

Population Growth had a significant negative effect on Economic Growth at both regional and national levels. Every 1 percent increase in Population would significantly reduce Economic Growth by 0.89 percent for the national level, 0.55 percent for the western region of Indonesia and 1.06 percent for the eastern region. Therefore, the government should promote the family planning program again to reduce population growth.

Edward (1997) reveals that Economic Openness will stimulate Economic Growth through increased productivity, competition, and technological imitation. Openness Growth had a significant positive effect on Economic Growth at both regional and national levels. Any 1 percent increase in Openness would significantly lead to a 0.03 percent increase in Economic Growth for the national level, 0.02 percent for the western region of Indonesia and 0.04 percent for the eastern region. Economic openness that was approached with the growth of openness had a positive effect on economic growth. This is in accordance with the research by Vinayagathan (2013).

Government Spending Growth had a significant negative effect on Economic Growth at both regional and national levels. Any 1 percent increase in Government Spending would significantly cause a 0.22 percent decline in Economic Growth for the national level, 0.13 percent for the western region of Indonesia, and 0.29 percent for the eastern region. This finding is consistent with the research by Barro and Sala-i-Martin (1997), Seleteng (2013), and Vinayagathan (2013). Government spending will reduce private investment more efficiently, which eventually will slow down economic growth.

The panel fixed effects estimation model shows that Inflation had a negative effect on Economic Growth at all levels of the region. However, previous empirical research shows that the relationship between inflation and economic growth was likely not linear. One method to identify the model nonlinearity is to use the panel threshold fixed effects analysis model developed by Hansen (1999).

The test of the existence of a threshold results contained in table 3 show that there was not one, but two threshold values for Indonesia. If the threshold existence test only looks for one value, the threshold value at a 5 percent level of significance will be 9.59 percent. Meanwhile, if the test of the existence of a threshold looks for two values, the threshold values at a 1 percent level of significance are 5.09 percent and 9.57 percent.

Inflation had a positive but not significant effect on Economic Growth when it was below the threshold value of 9.59 percent as shown in table 4, but when it was above the threshold value of 9.59 percent, Inflation in Indonesia had a negative and significant impact on Economic Growth. When two thresholds were used, Inflation had a positive but not significant effect on Economic Growth when it was below the threshold value of 5.09 percent and between the threshold values of 5.09 and 9.57 percent. When Inflation was above the threshold value of 9.57 percent, it had a negative and significant impact on Economic Growth. If we see the coefficient of Inflation below the 5.09 threshold, the value was higher when compared with the Inflation coefficient between the thresholds of 5.09 and 9.57. This shows that Inflation caused a slowdown in Economic Growth when inflation exceeded 5.09 percent. But when Inflation exceeded 9.57 percent, Economic Growth not only slowed down but decreased.

The test of the existence of a threshold in the western region of Indonesia found only one threshold value (5.75 percent) at a 10 percent level of significance. Inflation had a positive but not significant effect on Economic Growth when it was below the threshold value of 5.75 percent, but when it was above the threshold value of 5.75 percent, it had a negative and significant impact on economic growth.

The test of the existence of a threshold in the eastern region of Indonesia found only one threshold value (9.64 percent) at a 5 percent level of significance. The threshold for Inflation in the eastern region of Indonesia was higher than that in the western region of Indonesia. This is consistent with the relatively higher characteristics of Inflation in the eastern region.

Inflation has a positive but not significant effect on Economic Growth when it was below the threshold value of 9.64 percent, but when it was above the threshold value of 9.64 percent, Inflation in the eastern region of Indonesia had a negative and significant impact on Economic Growth.

3.1 Formula and Equation

The analytical method used to answer the research objectives consisted of descriptive analysis and econometric analysis in the form of a panel fixed effects model and a panel threshold fixed effects model, both of which estimated with ordinary least squares (OLS). The method for finding the threshold point refers to Hansen (1999) model, which is limited only in the fixed effects model panel. The expansion of the method into a random effects model is hampered by the problem of endogeneity and the results will be biased (Hansen, 1999). The model specifications in this study was based on the model used by Nduricimpa (2017) with Economic Growth and Inflation being the main variables and Population Growth, Investment Growth, Government Spending Growth, and Openness Growth being the control variables.

The equation used in the multiple linear regression panel is: $Growth_{it} = \beta_{0(i)} + \beta_1 Inf_{it} + \beta_2 Pop_{it} + \beta_3 Inv_{it} + \beta_4 Open_{it} + \beta_5 Gov_{it} + e_{it}$ (1)

Meanwhile, the form of the equation for finding the threshold point is:

$$Growth_{it} = \beta_{6(i)} + (\beta_7 Inf_{it} + \beta_8 Pop_{it} + \beta_9 Inv_{it} + \beta_{10} Gov_{it} + \beta_{11} Open_{it}) * I(Inf_{it} < \gamma) + (\beta_{12} Inf_{it} + \beta_{13} Pop_{it} + \beta_{14} Inv_{it} + \beta_{15} Gov_{it} + \beta_{16} Open_{it}) * I(Inf_{it} \geq \gamma) + e_{it} \quad (2)$$

where

$Growth_{it}$ = Per Capita GDRP Growth (percent)

Inf_{it} = Inflation (percent)

Pop_{it} = Population Growth (percent)

Inv_{it} = Investment Growth (percent)

Gov_{it} = Government Spending growth (percent)

$Open_{it}$ = Openness Growth (percent)

β_0 and β_6 = intercepts

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_7, \beta_8, \beta_9, \beta_{10}, \beta_{11}, \beta_{12}, \beta_{13}, \beta_{14}, \beta_{15}, \beta_{16}$ = estimated coefficients of parameters

e_{it} = residual

γ = threshold point

3.2 Figures and Tables

Table 1. Inflation and Economic Growth in the period 1994–2017

Period	Western Region of Indonesia		Eastern Region of Indonesia		Indonesia	
	Inflation	Economic Growth	Inflation	Economic Growth	Inflation	Economic Growth
Before the 1998 crisis	8.48	5.69	8.11	5.92	8.85	5.73
During the 1998 crisis	74.98	-12.20	77.14	-2.66	77.63	-10.41
Post-crisis, before the ITF	7.42	1.31	7.70	0.80	7.57	1.20
Post-crisis, after the ITF	5.68	4.15	6.17	3.22	5.73	3.95

Table 2. Estimation Results of Linear Models of Economic Growth

Variable	Indonesia		Western Region		Eastern Region	
	Coef.	Prob.	Coef.	Prob.	Coef.	Prob.
Constant	5.346	0.000	4.567	0.000	5.947	0.000
Inflation	-0.121	0.000	-0.139	0.000	-0.106	0.000
Investation	0.123	0.000	0.128	0.000	0.117	0.000
Population	-0.892	0.000	-0.549	0.001	-1.058	0.000
<i>Openness</i>	0.032	0.000	0.022	0.035	0.035	0.000
<i>Gov_Spending</i>	-0.215	0.000	-0.131	0.000	-0.291	0.000
<i>R-squared</i>	53.69		58.66		52.22	

Table 3. Threshold Significance Test Results in Indonesia

Existence of Threshold Value	Threshold	Probability
<i>Single Threshold</i>	9.59 %	0.022
<i>Double Thresholds</i>	5.09 % and 9.57 %	0.000

Table 4. Estimation Results of the Inflation Threshold Model in Indonesia

Dependent variable: Economic Growth	Coefficient	Probability
Inflation ≤ 9.59	0.024	0.677
Inflation > 9.59	-0.127	0.000
Inflation ≤ 5.09	0.076	0.591
$5.09 < \text{Inflation} \leq 9.57$	0.059	0.401
Inflation > 9.57	-0.125	0.000

Table 5. Threshold Significance Test Results in the Western Region of Indonesia

Existence of Threshold Value	Threshold	Probability
<i>Single Threshold</i>	5.75 %	0.074
<i>Double Thresholds</i>	-	-

Table 6.
Estimation Results of the Inflation Threshold Model
in the Western Region Indonesia

Dependent variable: Economic Growth	Coefficient	Probability
Inflation $\leq 5,75$	0.001	0.994
Inflation $> 5,75$	-0.124	0.000

Table 7.
Threshold Significance Test Results in the Eastern Region of Indonesia

Existence of Threshold Value	Threshold	Probability
<i>Single Threshold</i>	9.64 %	0.014
<i>Double Thresholds</i>	-	-

Tabel 8.
Estimation Results of the Inflation Threshold Model in the Eastern Region of Indonesia

Dependent variable: Economic Growth	Coefficient	Probability
Inflation \leq 9.64	0.122	0.194
Inflation $>$ 9.64	-0.104	0.000

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LECTURERS' COMPETENCES AND THEIR IMPACTS ON PERFORMANCE

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Abstract

Higher education institutions have a very special main task to produce college graduates who are able to apply their knowledge to the advancement of society and nation. In the era of industrial revolution 4.0, human resources that are able to compete in the digital era are highly needed. The role of universities in creating good-quality graduates is highly dependent on the competences of lecturers. In carrying out their duties, lecturers are required to have four competences, namely pedagogic competence, personality competence, social competence, and professional competence. This study attempted to analyze the influence of lecturer competences on organizational performance. Competences were measured through pedagogic competence, personality competence, social competence, and professional competence. Meanwhile, organizational performance was measured through teaching performance, research performance, and community service performance. The results of the multiple linear regression analysis show that personality competence was the only competence that had no effect on performance, while the other three competences were found to have positive effects on performance.

Keywords: organizational performance, pedagogic competence, professional competence, personality competence, social competence

INTRODUCTION

Higher education has a strategic function in producing graduates who are highly competitive and have superior knowledge and skills. In the era of industrial revolution 4.0, which is currently underway, there is demand for graduates who are able to compete and have high adaptability. To cope with challenges related to competence and knowledge in new technologies adoption, universities need to strengthen their education systems in order to produce graduates who are

competitive in workplace. Due to the continuous automation of simple manufacturing processes, the number of human resources with high levels of complexity will increase, resulting in the need for high levels of education of the staff. Herein lies the strategic role of universities in providing education system to produce human resources ready to face the digital era.

Lecturers are one of the elements of the university's resource that holds the main key to producing good-quality graduates. The responsibility for managing tertiary education to provide and strengthen higher education in community lies in universities, which is executed through learning, values, and commitment of faculty, staff, and students to create social capital and prepare students to contribute positively to the national and international community (Walker and McLean, 2010). Universities have a responsibility to develop social responsibility and commitments that have an impact on the success of the community. Like other organizations, universities currently face a high level of competition in terms of number of students, staffing, as well as research funding (Hemsley-Brown, 2012; Hillman et al., 2014). Higher education requires human resources to manage activities and carry out responsibilities in the field of higher education.

The strategic function of higher education institutions in developing science and technology is the basis of the nation's advancement, especially in producing highly qualified graduates. To produce graduates who are highly competitive, it is highly necessary for lecturers who have high competences to support high performance. Dessler (2007) states that the success of human resources in improving performance is strongly influenced by competence, motivation, and discipline. Ismail and Abidin (2010) found that competence is more influential to employee performance compared to other factors such as human capital and employee characteristics. Moore et al. (2002) state that superior performance is closely related to the competence possessed by someone. Several studies show that competence is one of the important factors determining the performance of a lecturer (Tone et al., 2015; Lucky & Yusoff, 2013; Chakaraberty, 2013) that will lead to university performance. Amin et al. (2015) found that good human resource management will support university performance. Čižiūnienė et al. (2016) state that organizations will not achieve their goals without the presence of competent workers, especially in current work environment. Thus, competence is an important factor in shaping organizational performance. In successfully facing challenges, the competence of lecturers will greatly affect the performance of universities. Thus, this paper aimed to analyze the influence of lecturers' competences on organizational performance in a university context.

LITERATURE REVIEW AND HYPOTHESES

1. Competences

The success of an organization is determined by its resources and its ability to manage these resources. Organizational resources are organizational assets that are the foundation of the organization to be able to evolve and develop. Organizational resources include tangible assets (e.g., factories, equipment, finance, and location), intangible assets (e.g., technology, patents and copyrights, culture, and reputation), and human resources. Human resources are resources that play an important role in the success of the organization. The performance and success of human resources both individually and in groups will support the performance and success of the organization. In every organization, the practice of human resource management (HRM) serves as mediation between the strategy of human resources and the performance of human resources (Mudor and Tooksoon, 2011). In this case, the role of HRM management is the center of attention that will determine how human resources can be arranged so that the organization gains a competitive advantage. Human resource practitioners are expected to play a dual role; on the one hand, they become business partners and protect the interests of employees, and on the other hand, they manage and implement strategies and good practices that respond to economic conditions (O'Brien & Linehan, 2014).

Furthermore, the competences that a HR possesses must also be able to support the organization's competitiveness strategy. The problem is not just how to manage and regulate existing HR, but also how to manage the quality and competence of the HR themselves. The success of one's performance in the organization is closely related to the competence possessed by that person. The concept of human resource competence is increasingly developing at this time, which directs organizations to adapt to changes that occur in the business world (Abdullah et al., 2014). The competence model that describes various competences in the organization can be used as a foundation for human resource professionals to support organizations in achieving success and sustainability (Sikora & Ferris, 2014).

The definition of competence has been stated by several experts. Among them are Gresalfi et al. (2009) who understand competency to be a group of personal skills or abilities outside the related work environment. Meanwhile, Winterton (2009) defines competence as the ability to explain knowledge in the form of understanding and skills to meet the standard requirements set by the employer. Blašková et al. (2014) state that competence is a summary of key professionals and

personal skills/talents and behavioral patterns of an individual. Competence forms the basis of various work behavior skills, whose maturity is important for successful performance.

2. Lecturers' Competences

Lecturers are parties who hold a strategic role in academic and student development in higher education. The important role of lecturers in producing quality graduates requires lecturers to have superior quality as well. When lecturers have good quality, the transformation of knowledge to students will also occur well, which in turn can improve the quality of students and college graduates. For this reason, there are a series of competences that a lecturer must have, which include not only the lecturers' personal academic abilities, but also other competences.

Law of the Republic Indonesia Number 14 of 2005 concerning Teachers and Lecturers article 1 paragraph 10 states that competence is a set of knowledge, skills, and behaviors that must be owned, instilled, mastered, and actualized by a teacher or a lecturer in carrying out professional duties. The competences that must be possessed by teachers and lecturers include pedagogical competence, personality competence, social competence, and professional competence. Pedagogic competence is the ability to manage student's learning, which includes understanding students, designing and implementing learning, evaluating learning outcomes, and developing students to actualize their various potentials. Personality competence is the ability of a strong, stable, mature, wise, and authoritative personality who also has a noble character to be a role model for students. Social competence is the ability to communicate and interact effectively and efficiently with students, fellow teachers/lecturers, parents of students, and the wider community. Professional competence is the ability of a teacher/lecturer in mastering a subject matter in an in-depth and extensive manner that allows him/her to guide students to meet the competence standards set out in the National Education Standards. Therefore, lecturers' competence includes 1) getting to know students well, 2) mastery of fields of study, both disciplinary content and teaching materials, in the curriculum, 3) implementation of educational learning which includes planning and implementing learning, evaluating learning processes and outcomes, and follow-up for improvement and enrichment, and 4) continuous development of personality and professionalism. Teachers and lecturers who have competences will be able to carry out their duties professionally (Yahya & Hidayati, 2014).

3. The Influence of Competences on Performance

Some experts have defined competences in a broad range of meanings. Le Deist & Winterton (2005) suggest that the notion of competence is related to ability, in that ability is a competence which is an unclear concept that alludes to knowledge, skills, and various important elements. This view assumes that competence is not based on just one but multiple dimensions. This view assumes that there are four dimensions of competence, namely cognitive competence, functional competence, social competence, and meta-competence. The four competence dimensions are shown in Figure 1. In the figure, the level of knowledge is explained by cognitive competence, skill levels are explained by functional competence, attitudes and behavior are shown by social competence, and meta-competence is related to the ability to acquire these competences through individual knowledge.

	Occupational	Personal
Conceptual	Cognitive Competence	Meta-competence
Operational	Functional Competence	Social Competence

Sumber: Le Deist & Winterton (2005)

Figure 1. Typology of Competences

The view that defines competence in these various dimensions shows that the competences a person has are the overall dimensions used to complete a task and a work. Successful completion of the task can be measured based on the work that has been achieved, otherwise known as performance.

Čižiūnienė et al. (2016) state that employees' competence is the main driver for organizational performance. Some studies show that there are various competences that drive organizational performance, such as technology and marketing. Various other competences can be used as sources of organizational performance according to the nature and objectives of the organization. Fathurrohman's research (2017) shows that the pedagogic competence, professional competence, social competence, and personality competence of a lecturer influence performance. Arifin's research (2015) also shows similar results, in that competence influences performance which is mediated by job satisfaction.

The foundation of the theory that shows the influence of competence on performance is the basis for the development of a research model. This research

focuses on lecturer competences and their influence on organizational performance. For this reason, the variables of competences include Pedagogic Competence, Professional Competence, Social Competence, and Personality Competence. Meanwhile, Organizational Performance refers to the performance measurement developed by Amin (2014), which measures performance from the academic side. Therefore, the research model proposed is as follows.

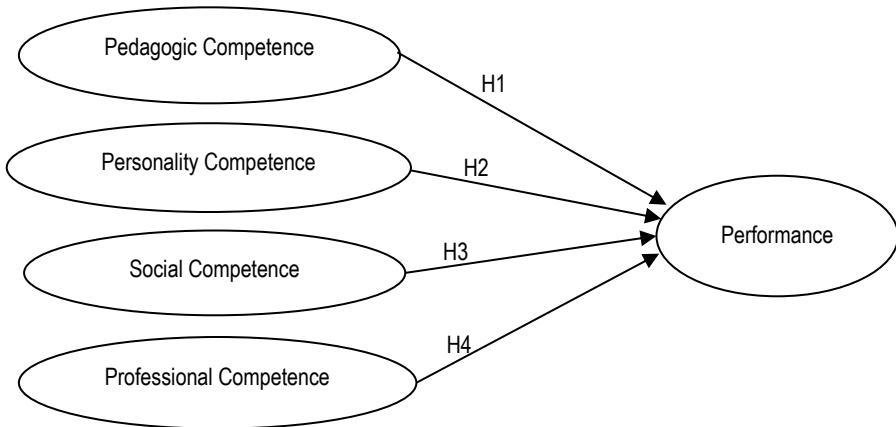


Figure 2. Research Model

The research hypotheses are as follows.

- H1 : Pedagogic Competence positively affects Performance
- H2 : Personality Competence positively affects Performance
- H3 : Social Competence positively affects Performance
- H4 : Professional Competence positively affects Performance

RESEARCH METHOD

This research was designed as quantitative research using statistical procedures to draw conclusions or test hypotheses (Lind et al., 2012). The mindset as shown in Figure 1 is translated into variables and measured by scale. Reliability test, validity test, and analysis employing the multiple linear regression model were carried out to draw conclusions. This research was conducted at a state university in Indonesia with lecturers being the main focus. The population in this study were all lecturers. Given the wide area of prospective respondents scattered

throughout Indonesia, the sampling technique used was the convenience sampling technique. The selection of respondents relied on the ability of the researchers to reach lecturers and the willingness of lecturers to become respondents.

This study used variables whose indicators were measured using a Likert scale. The indicators of the four types of competences were taken from Book II of Indonesia Portfolio Assessment of Educator Certification Guide for Lecturers, while the measurement of university performance was done using the indicators developed by Amin (2014) because they have been adjusted for the purpose of measuring the performance of higher education institutions. Organizational Performance variables included national and international networks, marketing and imaging capabilities, national and international scientific publications, investments in research and development institutions, supporting facilities and infrastructure, reputation, national and international accreditation, development of lecturers and institutions, quality of graduates, international reputation, and international cooperation. Linkages between these variables were tested using multiple linear regression analysis. Before the analysis was carried out, analyses of variable validity and reliability were carried out.

RESULTS AND DISCUSSION

We generated our primary data by distributing questionnaires. Of the distributed questionnaires, we collected 181 responses from the respondents. Further inspection revealed that all responses were complete and usable for the statistical analysis. The results of the statistical analysis are as follows.

1. Validity Test

Validity testing was conducted by using bivariate correlation between each indicator score and total construct score. The results of the bivariate correlation test show that all items in each variable were valid as indicated by the significance of the correlation of each indicator and the total score of below 0.05. Table 1 to Table 5 below display the results of the validity tests.

Table 1.
Results of Bivariate Correlation of Pedagogic Competence (PC) Variable

		PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9
PC 1	Pearson	1								
	Correlation									
	Sig (2-tailed)									
PC 2	Pearson	.520	1							
	Correlation									
	Sig (2-tailed)	.000								
PC 3	Pearson	.471	.524	1						
	Correlation									
	Sig (2-tailed)	.000	.000							
PC 4	Pearson	.476	.512	.478	1					
	Correlation									
	Sig (2-tailed)	.000	.000	.000						
PC 5	Pearson	.403	.297	.444	.321	1				
	Correlation									
	Sig (2-tailed)	.000	.000	.000	.000					
PC 6	Pearson	.290	.455	.409	.335	.357	1			
	Correlation									
	Sig (2-tailed)	.000	.000	.000	.000	.000				
PC 7	Pearson	.368	.391	.336	.439	.321	.529	1		
	Correlation									
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000			
PC 8	Pearson	.417	.391	.566	.439	.419	.440	.414	1	
	Correlation									
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000	.000		
PC 9	Pearson	.331	.360	.445	.363	.276	.372	.466	.516	1
	Correlation									
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	

Table 2.
Results of Bivariate Correlation of the Variable
Personality Competence (PsC)

		PsC1	PsC2	PsC3	PsC4	PsC5	PsC6
PsC1	Pearson	1					
	Correlation						
	Sig (2-tailed)						
PsC 2	Pearson	.694	1				
	Correlation						
	Sig (2-tailed)	.000					
PsC 3	Pearson	.623	.618	1			
	Correlation						
	Sig (2-tailed)	.000	.000				
PsC 4	Pearson	.466	.538	.642	1		
	Correlation						
	Sig (2-tailed)	.000	.000	.000			
PsC 5	Pearson	.477	.537	.496	.574	1	
	Correlation						
	Sig (2-tailed)	.000	.000	.000	.000		
PsC 6	Pearson	.472	.464	.443	.475	.584	1
	Correlation						
	Sig (2-tailed)	.000	.000	.000	.000	.000	

Table 5.
Results of Bivariate Correlation of the Variable Performance

		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
P1	Pearson	1											
	Correlation												
	Sig (2-tailed)												
P2	Pearson	.690	1										
	Correlation												
	Sig (2-tailed)	.000											
P3	Pearson	.495	.463	1									
	Correlation												
	Sig (2-tailed)	.000	.000										
P4	Pearson	.500	.426	.768	1								
	Correlation												
	Sig (2-tailed)	.000	.000	.000									
P5	Pearson	.520	.505	.483	.551	1							
	Correlation												
	Sig (2-tailed)	.000	.000	.000	.000								
P6	Pearson	.309	.407	.263	.318	.447	1						
	Correlation												
	Sig (2-tailed)	.000	.000	.000	.000	.000							
P7	Pearson	.368	.445	.347	.356	.390	.461	1					
	Correlation												
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000						
P8	Pearson	.333	.495	.445	.405	.391	.379	.621	1				
	Correlation												
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000	.000					
P9	Pearson	.287	.356	.347	.376	.443	.399	.582	.626	1			
	Correlation												
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000				
P10	Pearson	.290	.323	.354	.273	.315	.336	.605	.597	.580	1		
	Correlation												
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000			
P11	Pearson	.370	.375	.393	.470	.481	.370	.585	.527	.590	.670	1	
	Correlation												
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		
P12	Pearson	.451	.419	.462	.542	.507	.406	.559	.519	.607	.490	.785	1
	Correlation												
	Sig (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

These results show that the correlation between each indicator of each variable and the total score of the variable was significant (significance value is .000). Thus, it can be concluded that each question indicator is valid.

2. Reliability Test

Reliability test was carried out for each variable using the Cronbach's Alpha and item-to-total correlation coefficients that were useful for improving

measurements by eliminating items whose presence would reduce the Cronbach's Alpha. The results of the reliability test show that the Cronbach's Alpha based on standardized items on all variables were greater than 0.60. This implies that all variables used in this study were reliable, or the internal consistency of the items in the questionnaire was acceptable. The complete results of the reliability testing using Cronbach's Alpha can be seen in Table 6.

Table 6. Results of Reliability Test

Variables	Cronbach's Alpha Based on Standardized Items
Pedagogic Competence	.864
Personality Competence	.876
Social Competence	.844
Professional Competence	.870
Performance	.910

Table 6 suggests that all research variables exhibit Cronbach's Alpha based on standardized items of above 0.6 or above 60%. According to Ghozali (2009), the results indicate that all variables were reliable.

3. Multiple Linier Regression

We employed multiple regression analysis to test the influence of the independent variables on the dependent variable as proposed in the hypotheses. Table 7 presents the results of the regression analysis.

Table 7. Results of Multiple Regression Analysis

Independent Variables	Dependent Variable	t	Sig t
Pedagogic Competence	Performance	2.340	.020
Personality Competence		-.351	.726
Social Competence		4.500	.000
Professional Competence		3.168	.002
Adjusted R ²			.440
F			36.312
Sig F			.000

The results indicate that the adjusted R^2 was 0.440, which means that 44.1% variation in the variable Performance can be explained by variations from the four independent variables, while the rest, which was equal to 55.9%, is explained by other factors outside the model. The F value indicates whether all of the independent variables included in the model altogether had influence on the dependent variable. In the multiple linear regression test, the F value was 36.312, and the significance F value was 0.000. Because the probability was far smaller than 0.05, the regression model could be used to predict the influence of Pedagogic Competence, Personality Competence, Social Competence, and Professional Competence together on Organizational Performance. The results of the t test show that not all independent variables had a significance value of below 0.05. Personality Competence was the only independent variable that was found not to have a statistical effect on Performance, with a significance t value of 0.726 (above 0.05), meaning that H_2 was rejected. Meanwhile, the other independent variables (Pedagogic Competence, Social Competence, and Professional Competence) were statistically proven to have a positive influence on performance with significance t values of below 0.05

The significance of the findings in this study shows that Pedagogic Competence, Social Competence, and Professional Competence were significant contributors to Organizational Performance, while Personality Competence did not affect Organizational Performance. This study attempted to analyze the influence of lecturer competences on organizational performance. Several previous studies showed that lecturer competence had a positive effect on individual performance in terms of teaching performance (Rahman, 2012; Hamidi and Indrastuti, 2012; Hakim, 2015). This study sought to measure Organizational Performance more broadly in the academic area, including teaching, research, and community service. Human resource competences will affect the performance of the organization; human resources that are competent in a particular field will lead the organization to achieve its objectives and reach superior performance. This also supports the research results of Wasilezuk (2002) and Baum (2011), which show that competence had a positive effect on company performance, especially in terms of company growth, that is, the competence of human resources also contributed to the overall performance of the organization.

This study supports the results of research by Hamidi and Indrastuti (2012), which show that Personality Competence did not affect Performance. Personality Competence shows the good side of an individual lecturer who may not be able to judge himself/herself objectively. Personality Competence is a competence that

only measures one's individual characteristics. In this study, Personality Competence was measured through someone's attitude and behavior according to religion, behavior, and attitudes that are good (polite, authoritative, friendly, honest, disciplined), and self-control. This personality competence assessment is a pure assessment of the condition of oneself and is not directly related to the ability to do assignments as a lecturer. The fulfilment of duties as lecturers in delivering knowledge to students will have an impact on organizational performance in terms of teaching, research, and community service. However, in the assessment, Personality competence was not directly related to the fulfilment of duties as a lecturer in the learning process, thus it did not have any direct influence on organizational performance. The managerial implications that can be suggested in this case are that personality competence does not directly affect organizational performance, but it is appropriate for these competencies to be strengthened through various soft skill development programs. During this time, employee development programs have often focused on hard skill capabilities that aim to improve the skills and capabilities of employees that can be measured directly. The soft skill development programs can help organizations achieve performance through employee attitudes and behavior that complement hard skills, which can support the achievement of organizational goals as well.

The theory of human resource and organization shows that employee competences are the main principle that drives company performance (Čižiūnienė et al., 2016). In terms of lecturer competences in Indonesia, Law Number 14 of 2005 states that the competence of a lecturer includes pedagogical competence, professional competence, personality competence, and social competence. Pedagogic competence shows the ability to develop instructional materials and the ability to manage learning process well. Professional competence demonstrates the ability to understand concepts and relate them to other sciences, conduct critical analysis, understand the latest developments in science, and solve problems to improve teaching skills. Social competence shows how lecturers are able to behave and work well together with students, colleagues, and administrative staff. Personality competence shows an individual's ability to behave well (acting according to religion, polite, authoritative, friendly, honest, disciplined, and self-control). These four competences will support superior performance of a lecturer considering that a lecturer is an educator, who not only transfers knowledge to students, but also must be able to support the achievement of national education goals. Therefore, the four competences that must be possessed by lecturers are still needed in carrying out their duties as educators.

CONCLUSION

This study attempted to analyze the influence of lecturer competences on organizational performance. The competences measured included pedagogic competence, personality competence, social competence, and professional competence. Meanwhile, organizational performance was measured by the performance of teaching, research, and community service. By using multiple regression analysis, the results of the study show that personality competence was the only competence that did not statistically affect organizational performance. Meanwhile, the other three competences (pedagogic competence, social competence, and professional competence) showed a positive influence on organizational performance. Based on these results, the suggestion we propose is that it is necessary to strengthen the personality competence for lecturers to carry out their duties. Although personality competence shows insignificant results, it does not mean that this competence should be ignored. The development of this competence is still needed and important to the organization which can be done through various employee development programs that emphasize soft skills.

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HOW CUSTOMER RELATION AND CUSTOMER VALUE INFLUENCE A UNIVERSITY'S IMAGE AND STUDENTS' WORD-OF-MOUTH

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Abstract

Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 109 of 2013 on the Provision of Distance Education requires that Universitas Terbuka (UT) be ready to compete with other universities which most likely also implement a distance learning system. In light of that, UT should be able to change people's recognition (i.e. image) and become a quality university of preference with good services through well-established relationships with students, giving students a sense of satisfaction and conformity with the value of services obtained. Satisfied students will automatically relay positive word-of-mouth to build the image of UT. The research method used was explanatory survey method, and the data were analyzed using path analysis and SPSS software. The results of this research show that customer relation and customer value influenced the university's image and students' word-of-mouth. Customer relation significantly influenced customer value. Students rated UT's built relationship with students as good. Customer relation was maintained by keeping trust and commitment. The better the relationship with customers, the higher the customer value. The indirect influence of customer relation on image through customer value was greater than that on word-of-mouth.

Keywords: customer relation, customer value, image, word-of-mouth

INTRODUCTION

Customers whose expectations have been fulfilled and who are satisfied with the services/products they received will have a positive attitude toward the services/products. This customer attitude will lead to future purchases through re-consumption or word-of-mouth.

Satisfaction is very subjective and unique to every customer. In the case of universities, that provide educational services, students are the customers.

Customers will be satisfied when they obtain value from the provider/supplier/producer of a product (goods/service). This value may lie in the product, the service, the system, or something that can evoke emotions. If a customer seeks value in the quality of a product, he/she will gain satisfaction if he/she gets good-quality products/goods. If the value sought is comfort, he/she will be satisfied if the service provided by the service provider is comfortable. If the value he/she looks for lies in low price, he/she will feel satisfied if the seller offers him/her a product/service at the most competitive price. Satisfied customers will also share their satisfaction with the producers/providers. They will even share their feelings and experiences with others, who ultimately will become new customers.

The advantages of distance education systems that have proven able to cover a wide area have lowered the costs students must cover. But UT's focus should be placed on not only the coverage of its systems and the large number of its students, but also the improvement of its quality, both of the academic service and the academic administration.

Based on the data of the number of new students of the Faculty of Economics, the Faculty of Law, Social, and Political Sciences, the Faculty of Mathematics, Sciences, and Technology, and the Faculty of Education and Teacher Training over three registration periods, new students obtained information about UT mostly from friends, family, or relatives. It can be concluded that new students went through a word-of-mouth process and got interested in continuing their studies in UT.

Table 1.
Data of how new students obtain information about UT

No	Registration Period	Source of Information about UT	%
1	2015	Friends, relatives, and family	52%
2	2016	Friends, relatives, and family	45%
3	2017	Friends, relatives, and family	68%

Source: Srs data

One of the marketing strategies that can be implemented to maintain or increase company sales is to foster better relationships with existing customers. Customer Relationship Management is becoming increasingly important to all organizations that want to provide better services to their customers. CRM basically is aimed to establish actual relationships with customers for the benefit

of the company and the customers. In order for customers to assess their relationship with it, a company must provide them with something valuable.

METHOD

Based on the research objectives, the research method used in this study was an explanatory survey method, and the data were analyzed using a path analysis method and SPSS software. Explanatory survey method is a research method that is done by explaining the causal relationship between variables through hypothesis testing.

RESULTS

PATH ANALYSIS

1. Sub-structure 1

Based on the data processing, the data obtained for sub-structure 1 are as follows.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.836 ^a	.699	.696	1.21430

a. Predictors: (Constant), Customer relation

The table above shows a coefficient of determination (R^2) of 0.699, which means that 69.6% variability of the variable customer value can be explained by the independent variable, which in this case was customer relation. To test whether customer relation had an influence on customer value, a test was conducted, and the results are as follows.

Based on the SPSS-aided calculation, an F value of 227.693 was obtained. H_0 is rejected if the F value is bigger than the F table or $F_0 > F_{\alpha, n-3}$ at a significance level (α) of 5%. From the distribution table F obtained table value for $F_{0,05,1,97} = 3,94$.

Because 227.693 is bigger than 3.94 and the sig F was 0.000, H_0 was rejected. It can be concluded that customer relation had an influence on customer value. With the coefficient of determination (R^2) being 0.699 or 69.6%, the influence of variables outside this model amounted 31.4% (error = 0.314). To partially find out

the significance of the effect of customer relationship on customer value, a t test was conducted, and the results are as follows.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.709	1.102		.644	.521
	Customer Relation	.426	.028	.836	15.089	.000

Dependent variable: Customer value

The SPSS-aided calculation yielded path coefficients (beta or standardized coefficients) as follows. H_0 is rejected if the t value is greater than the t table or $t_0 > t_{\alpha, n-3}$. According to the table above, the beta coefficient = 0.836, and the t value = 15.089 at a significance level (α) of 5%. Then the value of t table or $t_{0.025, 97} = 1,985$. Because the t value (15.089) is bigger than the t table (1.985), the H_0 was rejected, or in other words, customer relation affected customer value at 0.836.

2. Sub-structure 2

Based on the data processing, the data obtained for sub-structure 2 are as follows.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.903 ^a	.816	.812	.99469

a. Predictors: (Constant), Customer value, customer relation

The table above shows a coefficient of determination (R^2) of 0.816, which means that 81.6% variability of the variable image can be explained by independent variables, which in this case were customer relation and customer value. To know whether customer relation and customer value simultaneously affected image, a test was conducted, and the results are as follows.

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	424.217	2	212.108	214.377	.000 ^a
	Residual	95.973	97	.989		
	Total	520.190	99			

a. Predictors: (Constant), Customer value, customer relation

b. Dependent Variable: Image

Based on the SPSS-aided calculation, an F value of of 214.377 was obtained. H_0 is rejected if the F value is greater than F table or $F_0 > F_{\alpha,1, n-3}$ at a significant level (α) of 5%. Then from table distribution F obtained table value for $F_{0,05,1,97} = 3,94$.

Because 214.377 is bigger than 3.94 and the sig F is 0.000, H_0 was rejected. It can be concluded that customer relation and customer value simultaneously influenced image. With the coefficient of determination (R^2) being 0.816 or 81.6%, the influence of variables outside the model is 18.4% (error = 0.184).

To partially test the significance of the influence of customer relation and customer value on image, a t test was conducted, and the results are as follows.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.781	.905		-.863	.390
	Customer Relation	.300	.042	.566	7.120	.000
	Customer Value	.390	.083	.375	4.713	.000

a. Dependent Variable: Image

The SPSS-aided calculation yielded path coefficients (beta or standardized coefficients) as follows:

H_0 is rejected if the t value is bigger than the t table or $t_0 > t_{\alpha,1, n-3}$.

1. The first beta coefficient = 0.566, and the t value obtained = 7.120 at a significance level (α) of 5%. Then t table or $t_{0.025,97}=1,985.50$. Because the t value (7.120) is bigger than the t table (1.985), H_0 was rejected, or in other words, customer relation affected image at 0.566.
2. The second beta coefficient = 0.375, and the t value obtained = 4.713 at a significance level (α) of 5%. Then t table or $t_{0.025,97}=1,985.50$. Because the t value (4.713) is bigger than the t table (1.985), H_0 was rejected, or in other words, customer value affected image at 0.375.

3. Sub-structure 3

Based on data processing, the data obtained for sub-structure 3 are as follows.

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.856 ^a	.732	.727		1.95009

Predictors: (Constant), Customer value, Customer relation

The table above shows a coefficient of determination (R^2) of 0.732, which means that the variability of the variable word-of-mouth can be explained by the independent variables, which in this case were customer relation and customer value. To know whether customer relation and customer value simultaneously influenced word-of-mouth, a test was conducted, and the results are as follows.

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1009.714	2	504.857	132.758	.000 ^a
	Residual	368.876	97	3.803		
	Total	1378.590	99			

a. Predictors: (Constant), Customer value, customer relation

b. Dependent Variable: Word_Of_Mouth

Based on the SPSS-aided calculation, an F value of 132.758 was obtained. H_0 is rejected if the F value is greater/bigger than the F table or $F_0 > F_{\alpha,1, n-3}$ at a

significance level (α) of 5%. Then from table distribution F obtained table value for $F_{0,05,1,97} = 3,94$.

Because 132.758 is bigger than 3.94 and the sig F is 0.000, H_0 was rejected. It can be concluded that customer relation and customer value simultaneously affected word-of-mouth. With the coefficient of determination (R^2) being 0.732 or 73.2%, the influence of variables outside the model is 26.8% (error = 0.268). To partially test the significance of the influence of customer relation and customer value on word-of-mouth, a t test was conducted, and the results are as follows:

The SPSS-aided calculation yielded path coefficients (beta or standardized coefficients) as follows:

H_0 is rejected if the t value is bigger than the t table or $t_0 > t_{\alpha}1, n-3$.

1. The first beta coefficient = 0.652, and the t value obtained = 6.527 at a significance level (α) of 5%. Then t table or $t_{0,025,97} = 1,985.50$. Because the t value (6.527) is bigger than the t table (1.985), H_0 was rejected, or in other words, customer relation affected word-of-mouth at 0.652.
2. The second beta coefficient = 0.262, and the t value obtained = 2.732 at a significance level (α) of 5%. Then t table or $t_{0,025,97} = 1,985.50$. Because the t value (2.732) is bigger than the t table (1.985), H_0 was rejected, or in other words, customer value affected word-of-mouth at 0.262.

4. Direct Influence and Indirect Influence

According to the results of the t tests, a direct influence has been identified from each sub-structure. Some indirect effects have also been identified, namely the effect of customer relation (X_1) on image (Y_1) through customer value (X_2) and the effect of customer relation (X_1) on word-of-mouth (Y_2) through customer value (X_2), which can be calculated as follows.

Indirect Effect

$$IE_{121} \quad X1 \rightarrow X2 \rightarrow Y1 = (0.836) (0.375) = 0.314$$

$$IE_{221} \quad X1 \rightarrow X2 \rightarrow Y2 = (0.836) (0.262) = 0.219$$

It can be seen that the indirect influence of customer relation on image through customer value amounted 0.314, while the indirect influence of customer relation on word-of-mouth through customer value amounted 0.219.

Direct Effect

$$DE_{21} \quad X1 \rightarrow X2 = 0.836$$

$$DE_{11} \quad X1 \rightarrow Y1 = 0.566$$

$$DE_{21} \quad X1 \rightarrow Y2 = 0.652$$

$$DE_{12} \quad X2 \rightarrow Y1 = 0.375$$

$$DE_{22} \quad X2 \rightarrow Y2 = 0.262$$

CONCLUSION

This research tried to test how far customer relation and customer value influenced university's image and students' word-of-mouth by taking research objects in the unit of distance learning program of Universitas Terbuka Bandung. Based on the analysis results and the discussion in this research, some important conclusions were drawn: (1) Customer Relation and Customer Value had an effect on university's Image and student's Word-Of-Mouth; (2) Customer Relation had a significant effect on Customer Value. Students assessed that Universitas Terbuka's built relationship with its students was good. Customer commitment is to maintain trust and commitment. The better the relationships with customers built, the higher the customer value; and (3) The indirect influence of Customer Relation on Image through Customer Value was greater than that on Word-Of-Mouth.

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IS THERE ANY BUNCHING RESPONSE AROUND THRESHOLD? EVIDENCE FROM INDONESIAN CORPORATE INCOME TAX

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Abstract

This study aimed to analyze firms' responses to presumptive tax implementation with a certain threshold (IDR 4.8 billion) since 2013. Based on the bunching estimation of firms' tax return data from 2011 to 2016, there has been a significant negative bunching phenomenon since 2013. Our study concluded that Indonesian firms preferred profit-based normal tax rates to turnover-based flat tax rates as shown by the negative bunching phenomenon because firms with turnover values of above the threshold will have lower tax burden.

Keywords: bunching, corporate income tax, firm behavior, threshold

INTRODUCTION

Presumptive tax has been implemented in almost all developing countries. In general, this policy is implemented to sales/turnover base by defining a threshold to be applied. Intuitively, the basic idea of this policy is that the broader the base, the harder it is to evade. These minimum tax schemes provide an ideal setting for firms to estimate evasion responses to switch between profit-based normal tax and sales/turnover-based presumptive tax using a bunching approach.

It is important to know why and how firms respond to the minimum tax schemes impact. This scheme induces policy discontinuity, predisposing firm's decision to report production and sales/turnover to an authorized tax institution (Almunia & Lopez-rodriquez, 2018; Best, Brockmeyer, Kleven, Spinnewijn, & Waseem, 2015; Gebresilasase & Sow, 2015; Harju, Matikka, & Rauhanen, 2016; Kleven & Waseem, 2013; Onji, 2009; Saez, 2010). It gives different tax burden to groups above and below the threshold for the same criterion, for example, firm scale, business sector, and so forth, which seems to be unfair (Adams & Webley, 2001).

Firms belonging to the group above the threshold ponder whether there will be more benefits from reporting sales/turnover above the threshold or otherwise. This decision reflects the firms' utility to maximize the profit. There is possibly a bunching phenomenon occurring around the threshold for the purpose of lowering tax burden. However, there is also the possibility of no bunching phenomenon occurring out of honesty, incapacity of avoidance, or else.

Reporting the sales/turnover below the threshold will certainly disturb the economic efficiency. This behavior reflects that firms retain the growth of its business scale, thus they create an economic distortion because they did not make the best use of its resources to maximize its sales/turnover and because of alighting of tax revenue.

As a developing country, Indonesia, through its authorized tax institution (Directorate General of Taxes), has implemented a self-assessment system in income tax reporting since 1983. The information generated is considerably accurate unless there is any evidence from the DGT that proves otherwise. This kind of system induces asymmetric information. It is highly susceptible to fraud such as underreporting of sales/turnover below its actual number (Baumeister, 1982).

Small and medium enterprises (SMEs) have been considered as a significant factor that spurs economic growth. In Indonesia, SMEs contributed more than 60% of gross domestic product in 2013 and made up nearly 99% of all Indonesian enterprises, although most of them have not been registered as taxpayers. To simplify income tax calculation and regulations, the Indonesian Government implements sales/turnover tax below a threshold instead of pure profit tax. This scheme may retain both the efficiency of taxation and the economic growth nationally, but its actual purpose is to induce small enterprises' growth (Harju et al., 2016).

Hsieh and Olken (2014) used economic census data in 2006 and conducted a visual analysis in their study. They found no response from firms to the threshold applied in Indonesia. Unlike most research that uses survey data, this research used the data from firms' annual tax returns submitted to the DGT. These data are more relevant and reliable since they were reported by taxpayers themselves. The analyses in previous research by Almunia (2013), Almunia & Lopez-Rodriguez (2018), and Liu & Lockwood (2015) of the different responses between different firms were carried out at an aggregate level. The use of firm-level data would give more details regarding the firms' characteristics and response to threshold. The analysis in this research was undertaken in two periods (before and after

presumptive tax scheme implementation) at a certain threshold to gain a clearer picture of the existence of bunching phenomenon in regard to tax policy implementation based on firm's scale.

With the employment of the bunching estimation method used by Kleven and Waseem (2013) and Chetty et al. (2011), it was found out that at a threshold of IDR 4.8 billion in the period 2013–2016, there was negative bunching phenomenon with firms being distributed beyond the threshold. This implies that those firms overreported their sales/turnover values more than the true values to gain less tax burden than it should be. There was no positive bunching phenomenon at the area below the threshold, but there was a significant bunching phenomenon in the opposite area. When bunching responses indicate that the threshold became a barrier to small enterprises' growth because of the increase from the threshold in preceding period, negative bunching even gave an incentive to firms to increase their sales/turnover by real responses or overreporting. These responses gave rise to misjudgement in the policy-making because the data used were not the true values.

In section 2 we will discuss about the research method we employed that consists of conceptual framework used in previous literature, corporate income tax policy in Indonesia, relevant existing empirical literature to define our empirical strategy, and the data used in this study. Section 3 discusses about the empirical results and discussion, while conclusion is to be presented in section 4.

METHODS

1 Conceptual Framework

Theoretically, a firm is inclined to a certain condition that allows lower tax burden. The firm will pay tax in the form of normal corporate income tax as $\mu = 1$ with $\tau = \tau_\pi$ or presumptive tax as $\mu = 0$ with $\tau = \tau_y$, where $\tau_y < \tau_\pi$. Taxable income is based on sales/turnover value as

$$T(y, c^\wedge) = \max\{\tau_\pi [y - c^\wedge], \tau_y y\} \quad (1)$$

Firms will shift from normal corporate income tax to presumptive tax if

$$\tau_\pi [y - c^\wedge] = \tau_y y, \text{ where } \pi^\wedge \equiv y - c^\wedge y = \tau_y \tau_\pi \quad (2)$$

It induces a fixed cutoff condition (τ_y/τ_π) for gained profit as $\hat{\pi}$ (reported profit as a share of sales/turnover). If the gained profit is higher than the cutoff point, firms will pay tax in the form of normal corporate income tax, and vice versa. If the firm's profit rate surpasses a certain threshold, both tax rate and tax base will change discontinuously, but its tax obligations will change continuously. This phenomenon is called a kink despite a notch. However, this kind of kink is different than worked by Saez (2010) and Chetty et al. (2011) because there are changes in both tax rate and tax base. This combination of changes predisposes incentives of real output and compliance in different ways. The marginal return to real output $1 - \tau_E$ changes from 1 to $1 - \tau_y$ when the firm shifts from normal corporate income tax to presumptive tax.

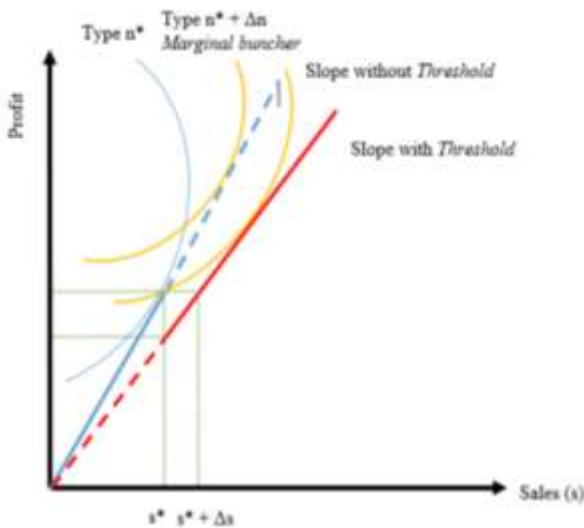


Figure 1 Profit Set Diagram

The curve in Fig. 1 shows the impact of a notch to the firm's profit diagram. The firm's initial condition is a slope without certain threshold. When a threshold policy is implemented, the firms that will be affected are those with sales/turnover values of more than s^* . Firms with sales/turnover values of more than s^* decrease their profits following the curve with threshold. Bunching phenomenon is likely to happen in firms with sales/turnover values of between s^* and $s^* + \Delta s$ to preserve their profits to be at least equal to other firms' below the threshold.

Regarding firm size distribution, the straight line in Fig. 2 shows observed turnover distribution, and the dotted line is counterfactual as there is no certain threshold implemented. An excess mass occurs when a certain threshold is applied as shown as a spike line turnover distribution in the level of s^* . It comes from the lost turnover distribution above the threshold. A missing mass above the threshold is an area between counterfactual distribution and observed turnover distribution (s^* , $s^* + \Delta s$). Assumed smooth turnover elasticity varies between firms, and the distribution frequency slowly approaches the counterfactual curve above turnover of s^* . Thus, $s^* + \Delta s$ represents firm's turnover that is likely to lead to a bunching phenomenon.

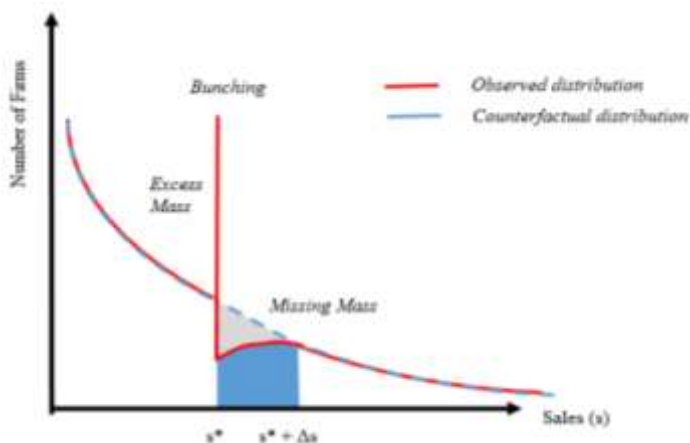


Figure 2 Firm Size Distribution: Heterogeneous Response

Because response varies between firms, there are some firms that will stay in the area. There are two possible factors, namely firm's honesty and the inability of the firm itself (Almunia & Lopez-rodriguez, 2018).

2. Corporate Income Tax in Indonesia

The normal corporate income tax rate applied in Indonesia is 25% on profit base. There is an incentive of tax rate reduction of up to 50% of the normal tax rate (12.5%) under the condition that the firm's turnover is below IDR 50 billion. Since 2013, the Indonesian Government has been implementing a new presumptive tax scheme (1%) based on sales/turnover value on the condition that the firm's turnover is less than IDR 4.8 billion. This scheme aims to simplify corporate

income tax calculation and cut down SME tax burden. Firms with turnover values of more than IDR 4.8 billion must pay the normal corporate income tax as implemented before.

3. Empirical Model

The understanding of firm's behavior around a certain threshold can be attained by using the bunching estimation method that has been used in previous studies by Emmanuel Saez (2010), Chetty et al. (2011), Kleven & Waseem (2013), Almunia (2013), Gebresilashe & Sow (2015), Harju et al. (2016), Almunia & Lopez-Rodriguez (2018), and Best & Kleven (2018). This estimation method is employed by comparing the distribution of firms' turnover around factual threshold based on estimation (counterfactual). Based on previous literature, there would be some build-ups of firms' reporting regarding their turnover in certain area such as either below or above a threshold where the tax burden is lower.

In estimating firms' response, the estimation of the degree of bunching is performed around a certain threshold. First, the calculation of counterfactual distribution without threshold policy is carried out, then the results are compared to the actual observed density distribution. Counterfactual response is estimated by using a polynomial equation without data in the range $[s_L, s_U]$ around threshold s^* . If its distribution is grouped in terms of bin (width of w), the polynomial regression estimation is as follows.

$$C_j = \sum_{i=0}^q \beta_i \cdot (s_j)^i + \sum_{i=s_L}^{s_U} \gamma_i \cdot 1[s_j = 1] + \varepsilon_j \quad (3)$$

C_j is the sum of firms in bin j , s_j is the median of firms' turnover in each bin, q is polynomial order, s_L and s_U are the lower limit and upper limit of excluded area, and γ_i is intercept shifters for each bin in affected area. The coefficient of its regression estimation is used as a value used to estimate the counterfactual distribution of firms' turnover. The data of the affected area is excluded in order to omit the disturbance around a certain threshold.

$$\widehat{C}_j = \sum_{i=0}^q \widehat{\beta}_i \cdot (s_j)^i \quad (4)$$

To estimate the excess of bunching mass (B_n) and missing mass (H_n) around a certain threshold, a comparison between counterfactual density and observed distribution in the area $[s_L, s_U]$ is carried out as follows.

$$\widehat{B}_n = \sum_{s_L}^{s^*} |C_j - \widehat{C}_j| \quad (5)$$

$$\widehat{H}_n = \sum_{s^*}^{s_U} |\widehat{C}_j - C_j| \quad (6)$$

To get valid estimation, the assumption of the excess of bunching mass must be the same as the missing mass (Kleven & Waseem, 2013) employed, so the assumption $\widehat{B}_n = \widehat{H}_n$ must be used. Based on the assumption, Chetty et al. (2011) define empirical estimation of b as an excess mass around a certain threshold relative to the mean of counterfactual turnover density.

$$\widehat{b} = \frac{\widehat{B}_n}{\left[\frac{1}{1+(s^*-s_L)/w} \right] \sum_{j=s_L}^{s^*} \widehat{p}_i \cdot (s_j)^i} \quad (7)$$

The following assumptions are employed in this bunching approach:

- a. counterfactual distribution is in the form of a smooth curve and as a polynomial function;
- b. the form of counterfactual distribution is a downward slope from high value of firm's turnover to low value of firm's turnover; and
- c. there is a data aggregation bias because of the heterogeneity of elasticity in response to the threshold policy, so this bunching approach identifies the mean value of response behavior among different elasticity responses.

4. Data

This study used the data from income tax returns submitted by firms in Indonesia to the DGT. The estimation analysis was carried out in two terms: two years (2011–2012) before the presumptive tax policy was applied and four years (2013–2016) after the presumptive tax policy with a threshold point (IDR 4.8 billion) was applied for the first time.

RESULTS

The Firms size distribution as shown in figure 3 and 4 indicates that a negative bunching phenomenon occurred around the threshold (IDR 4.8 billion). The term 'negative' means that it happened above the threshold. The accumulation of firms distribution above the threshold differs from the theory in previous literature that bunching phenomenon usually occurs below a certain threshold because of its benefit. In Indonesian case, normal corporate income tax relatively has lower tax burden than does presumptive tax with the application of negative bunching.

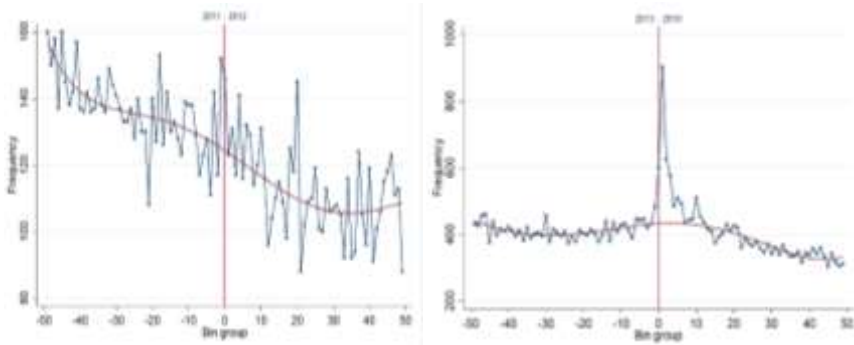


Figure 3
Firms Turnover Distribution in Pooled Data around the
IDR 4.8 billion Threshold

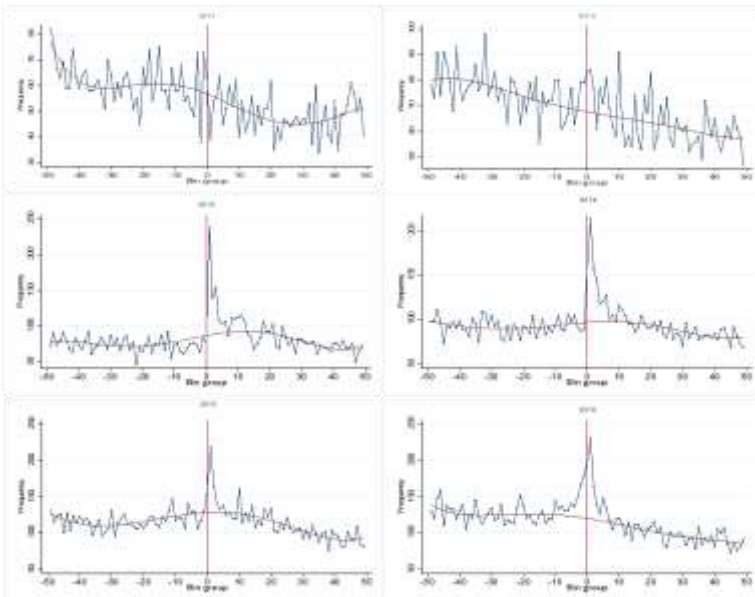


Figure 4
Annual Firms Turnover Distribution around IDR 4.8 billion Threshold

This phenomenon has been occurred since 2013 and so forth, as shown in fig. 3, caused by presumptive tax implementation (1% on turnover base) in July 2013. In the period of 2013 to 2016, there is negative bunching phenomenon above the threshold in pooled data analysis, but there isn't in previous period (2011 – 2012). Annually analysis shows the same phenomenon as shown in table 1.

Nevertheless, it is occurred because of the presumptive tax scheme implementation. It reflects that Indonesian firms try to overreported their sales/turnover in tax return so that they can gain lower tax burden. It differs from what has been explained theoretically before that firms tend to underreport or reduce their business operation. It implies that presumptive tax scheme on turnover base gives more tax burden rather than normal corporate income tax for firms with turnover value around the threshold. Hence, the original aims of presumptive tax scheme implementation is unable to achieve.

Table 1
Estimation Result in Negative Bunching around IDR 4.8 Billion Threshold

Year	Obs.	B	Under Counterfactual	b	Standard Error
Pooled Data					
2011 - 2012	12,309	63	1,982	0.5098 **	(0.4356)
2013 - 2016	40,547	1,201	6,891	2.786 ***	(0.2869)
Annual Data					
2011	5,431	-7	362	- 0.1302	(0.6268)
2012	6,878	71	449	1.0380	(0.6353)
2013	8,073	177	760	2.0110 ***	(0.3986)
2014	9,364	364	618	3.5410 ***	(0.5273)
2015	11,406	153	894	1.2020 ***	(0.4356)
2016	11,704	528	2,860	4.4360 ***	(0.5371)

DISCUSSION

As economic agents, firms maximize their profits almost in every condition. Corporate income tax is one factor that decreases their profits. Normal corporate income tax rate is 25% on profit base, but there is a facility to reduce the tax rate to 12.5% on profit base on the condition that its turnover is not over IDR 50 billion. Since 2013, firms that have turnover values below IDR 4.8 billion can use the presumptive tax scheme on turnover base.

Firms would do negative bunching when $t_1 < t_2$ because of the lower tax burden. This implies that the tax payable of the presumptive tax (t_2) scheme is higher than that of the normal corporate income tax (t_1) scheme. Firms are able to do negative bunching by increasing their sales in a positive way or over-reporting their sales in a negative way. This kind of schemes is relatively safe since there is no sanction on over-reporting of income or sales. To fulfill this condition, the firm-cost-to-turnover ratio will very likely affect its decision.

$$t_1 < t_2 \quad (8)$$

$$0.125 [s - C] < 0.01s \quad (9)$$

$$0.125C > (0.125 - 0.01)s \quad (10)$$

$$C > \frac{0.115}{0.125}s \quad (11)$$

$$\frac{c}{s} > 92\% \quad (12)$$

Firms that have cost-to-sales ratios of more than 92% would do negative bunching in order to lower their tax burden. As shown in Fig. 5, the cost-to-sale ratio around the IDR 4.8 billion threshold is actually higher than 92%, so the firms with cost-to-sales ratios of more than 92% have an incentive to do negative bunching.

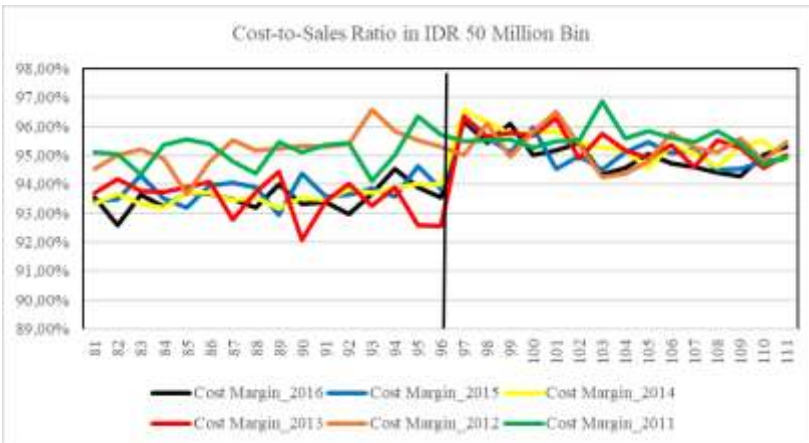


Figure 5 Cost-to-Sales Ratios

CONCLUSION

Firms respond to the presumptive tax scheme with a certain threshold (IDR 4.8 billion) by doing negative bunching, such as actively holding their sales above the threshold. Bunching occurred in the period 2013–2016. Firms are actively doing bunching when there is an incentive under the policy scheme implemented. Meanwhile, at the time the incentive is gone, firms which previously practiced bunching would report their income approaching their actual sales/turnover or the optimal capabilities in sales/turnover should be. This phenomenon implies that firms choose to remain above the threshold because of the lower tax burden in normal corporate income tax. The implementation of presumptive tax policy on turnover base is merely to be a consideration for sales/turnover reporting behavior.

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DETERMINANTS OF ORGANIZATIONAL COMMITMENT AND THEIR IMPLICATIONS FOR EMPLOYEE PERFORMANCE OF MSMEs ACROSS LOMBOK ISLAND

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Abstract

The purposes of this research are to analyze the effects of organizational culture, work motivation, reward system, and transformational leadership on organizational commitment and to analyze the effects of organizational culture, work motivation, reward system, and transformational leadership on employee performance through organizational commitment. The population of this research was all employees who worked at MSMEs throughout Lombok Island that had certain amounts of capital, were referred to as small companies according to the legislation, were engaged in trade and manufacturing, and were profitable, numbering 463 people. The measurement of the relationships between variables in this research was carried out using the Structural Equation Modeling (SEM) and the Partial Least Square (PLS) approach with the help of SmartPLS version 2.0. The results of this research show neither evidence of significant direct impact of organizational culture on organizational commitment nor significant direct impact of reward system on organizational commitment, but they show a significant direct impact of work motivation on organizational commitment. There were a significant direct impact of transformational leadership style on organizational commitment and a significant direct impact of organizational commitment on employee performance, but there was no evidence that organizational commitment as an intervening variable could affect the relationship between organizational culture and employee performance. This research also found that organizational commitment as an intervening variable affected the relationship between work motivation and employee performance. There was no evidence that organizational commitment as an intervening variable could affect the relationship between reward system and employee performance, but this study found the evidence that organizational commitment as an intervening variable could affect the relationship between transformational leadership and employee performance.

Keywords: organizational culture, work motivation, reward system, transformational leadership, organizational commitment, employee performance

Micro, small, and medium enterprises (MSMEs) are one of the important pillars of a country's economy. Although it is seen as a small scale of economic activity, the number of MSMEs is very large. Thus, it can provide economic contributions for both the society and the country. This important role has encouraged many countries, including Indonesia, to continue to develop MSMEs. There are three underlying reasons for developing countries to see the importance of the existence of MSMEs. Firstly, the performance of MSMEs tends to be better in terms of producing productive workforce. Secondly, as part of the dynamic development, MSMEs often achieve increased productivity through investment and technological change. Thirdly, it is often believed that MSMEs have an advantage in terms of flexibility over large businesses (Hidayati, 2011).

According to Tri (2013), the activities of micro, small, and medium enterprises (MSMEs) can develop and achieve consistency in the national economy. To date, the problems often faced by MSMEs are those related to capital, in that most capital is derived from owners' equity. The MSMEs in West Nusa Tenggara (NTB) are currently facing difficulties, especially the difficulty accessing capital through financial institutions, both regional and national financial institutions (banks), due to difficulties in terms of capital assistance that must be owned and equipped by MSMEs. Assessment, improvement, and perfection of the development of MSMEs should be carried out from time to time. In addition to capital, the problem faced by small businesses is related to how and where their products should be marketed. Marketing is no longer focused only on how the products arrive at the customers, but also on whether the products can meet the customer needs, which will lead to the achievement of customer satisfaction.

A good organization is one that seeks to improve its human resource capabilities because they are keys to improving employee performance. Therefore, there must be a leader who rules, makes policies, and directs subordinates or employees to achieve organizational goals. According to Daft (2006: 334), leadership is the science and art that influences people or groups to act as expected in order to achieve goals effectively and efficiently.

Organizational culture is defined as a set of behaviors, feelings, and psychological frameworks that are deeply and intimately possessed and shared by

members of the organization (Asang, 2012: 103). If in carrying out their work employees are guided by organizational culture, they will be committed to their organization (Arifin, 2010). This is also consistent with previous studies, including those by Nurjanah (2008) and Setyorini et al. (2012).

According to Robbins (2006), motivation is a process that determines the intensity, direction, and perseverance of individuals in trying to achieve goals. In the management of MSMEs, work motivation can also affect performance. Some researchers have examined the relationship between motivation and employee performance, including Suharto and Cahyono (2005) as well as Hakim (2006). Both studies have shown the same results that motivation and employee performance are related in a positive and significant relationship.

Reward systems as appreciation for motivating employees also play an important role in the achievement of higher performance. Compensation or reward system is one of the factors that motivates employees to commit to the organization (Stillo, 2011; Carrigan, 2011). This is supported by previous research showing that compensation or reward system increases the commitment and performance in an organization (Suhartini, 1999; Sudarwanti, 2007; Murty and Hudiwinarsih, 2012).

Ivancevich et al. (2006: 213) state that transformational leaders are able to motivate their followers to work toward a goal, not for short-term personal interests, and to achieve triumph and self-actualization, not for the sake of feeling safe. This is supported by Wollah (2015), Tintami (2012), and Marnis (2012), that show that transformational leadership has a positive effect on performance.

Based on the description above, the statements of the problems in this study are as follows: Do organizational culture, work motivation, reward system, and transformational leadership have influences to organizational commitment? Do organizational culture, work motivation, reward system, and transformational leadership have influences on employee performance through organizational commitment? With regard to the statements of the problems, the objectives of this study are to analyze the influences of organizational culture, work motivation, reward system, and transformational leadership on organizational commitment and to analyze the influences of organizational culture, work motivation, reward system, and transformational leadership on employee performance through organizational commitment.

ORGANIZATIONAL CULTURE

The culture that applies to an organization is a tangible manifestation of the actualization of organizational culture which is a comprehensive program in accelerating efforts to renew operational activities of the organization/institution more efficiently and effectively (Susanto, 1997). This organizational culture will form norms and become behavioral guidelines that determine the behavior of the organization's members and can be accepted by other members because good and right norms are starting from top management down to operational employees (Robbins, 1996).

Organizational culture functions as an adhesive, unifier, identity, image, and motivator for all employees and people in the organization. Furthermore, the organization's value system can be used as a reference for human behavior in organizations that are oriented toward achieving goals or set performance results (Arifin, 2010). Culture influences organizational commitment (Arifin, 2010; Nurjanah, 2008; Setyorini et al., 2012).

The organizational culture referred to in this study is the trust or credence that is used as a guide and is followed by all members of a company (MSME), including the timeliness, cooperation, and transparency within the company, thus the company will be able to build a strong culture that will ultimately have an impact on the employee performance.

WORK MOTIVATION

Motivation according to Hasibuan (2008: 219) is the power of motion that creates someone's enthusiasm, which drives him/her to work together, work effectively, and integrate as best as he/she can to achieve satisfaction. The motivation that a person has will form a behavior that is directed at achieving the expected goals. Work motivation is important to a company as it serves as a driving factor for employees. Every activity carried out by an individual must have a factor that drives it.

According to Luthans (2006), motivation is the first step for someone to take action due to physical and psychological deficiencies or in other words, it is an expressed impulse to fulfill certain goals. If this value does not occur, individuals who incur high levels of costs will be represented, which is actually contrary to the interests of the organization. The low performance and motivation of employees are actually a classic problem, but it remains a relevant topic to discuss. The

research conducted by Listianto and Setiaji (2007) as well as Prasetyo and Wahyuddin (2003) shows that work motivation has a significant positive effect on employee performance.

REWARD SYSTEM

Reward system is extremely important to employees as individuals because the amount of rewards reflects the size of the value of their work among employees, families, and communities. It is also important to the company because it reflects the organization's efforts to maintain human resources so that employees have high loyalty and commitment to the company (Handoko, 1994: 155). Reward or compensation is a form of remuneration received by budget management in financial and non-financial terms. Compensation can be calculated and can be converted into cash and can be measured from the perceptions of the budget management with regard to its feasibility, suitability with the level of education, work period, and responsibility. In general, compensation relates to the suitability of the amount received associated with performance achievement as well as remuneration in the form of career rewards, namely security, self-development, career system clarity, and social benefits (praise and appreciation). Compensation is one of the factors that motivates employees to commit to the organization (Stillo, 2011; Carrigan, 2011).

TRANSFORMATIONAL LEADERSHIP

The initial concept of transformational leadership was formulated by Burns (1978) from descriptive research on political leaders. He describes transformational leadership as a process of leaders and followers raising themselves to a higher level of morality and motivation. These leaders try to raise the awareness of their followers by calling for higher ideals and moral values such as independence, justice, and humanity not based on emotions such as greed, jealousy, and hatred.

Transformational leadership can be defined as leadership that includes organizational change efforts to achieve goals based on changes in the conditions and situations of the organization. It is believed that this leadership style will lead to superior performance in organizations that are facing demands for renewal and changes in the internal and external environment. A leader can transform his subordinates in four ways called four Is (Bass and Avolio, 1994), namely (a)

Idealized Influence (charisma), (b) Inspirational Motivation, (c) Intellectual Stimulation, and (d) Individualized Consideration.

Robbins and Judge (2008: 91), Sopiah (2008: 294), and Yuki (2010: 305), also state that transformational leadership consists of the four aforementioned aspects. The four aspects of transformational leadership encourage employees to work harder, to increase productivity, to have work morale and higher job satisfaction, to increase organizational effectiveness, to minimize employee turnover, to reduce absenteeism, and to have higher organizational adaptability. Transformational leadership, which is included in the theory of situations, is leadership that has a vision and is able to identify changes in the environment and transform these changes into organizations, to pioneer change and provide motivation and inspiration to individual employees to be creative and innovative, to bring renewal in management performance, and to be brave and be responsible for leading and controlling the organization (Usman, 2009: 296). Furthermore, according to Ivancevich et al. (2006: 213) transformational leaders are able to motivate their followers to work toward a goal, not for short-term personal interests, and to achieve success and self-actualization, not for the sake of feeling safe. The vision of a leader gives his/her followers the motivation to work hard to achieve the company's goals.

ORGANIZATIONAL COMMITMENT

Mowday et al. (1979) state that organizational commitment is a strong belief and support for the values and goals an organization wants to achieve. Organizational commitment has at least three characteristics: (1) having strong trust and accepting the values and goals of the organization; (2) having strong willingness to try or work hard for the organization; and (3) having the desire to remain a member of the organization.

Allen and Meyer (1990) also state that employees who are committed to their organization will work with dedication because they assume that the important thing to achieve is the achievement of tasks in the organization. Employees having a strong commitment to the organization also have a positive outlook and will do their best for the benefit of the organization. This commitment makes employees have the desire to summon up their energy and responsibilities that will further support the welfare and success of the organization they work for.

EMPLOYEE PERFORMANCE

Employee performance that is common to most jobs includes the following elements: quality, quantity, timeliness of results, and attendance (Malthis and Jackson, 2006: 113). Furthermore, according to Wirawan (2007: 6), employee performance is the result of the synergy of a number of factors, such as internal environment of organization, external environment of organization, and internal factors of employees.

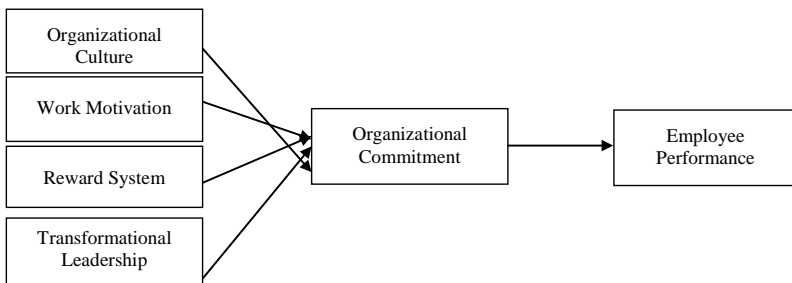


Figure 1
Research Road Map

This research is associative research, which is a type of research aimed to determine the relationship between two variables or more with regard to the problem studied (Sugiyono, 2014: 55). The relationships in this study were causal relationships. This study examined the determinants of organizational commitment and their implications for the employee performance of MSMEs throughout Lombok Island. The independent variables in this study included Organizational Culture, Work Motivation, Reward System, and Transformational Leadership. The intervening variable used in this study was Organizational Commitment, and the dependent variable was the Performance of MSME employees. The population in this study was all employees (463 people) working in MSMEs throughout Lombok Island that had certain capital, were referred to as small companies according to regulatory requirements, and were engaged in both trade and manufacturing.

In connection with the above explanation, 463 questionnaires were given to employees working for MSMEs in each region, both cities and regencies, on Lombok Island. Due to the large number of MSMEs on Lombok Island and the limited time of research, each questionnaire was given to 1 (one) person

representing his or her respective MSME. More details about the distribution of population can be seen in Table 1.

Table 1.
The Distribution of MSME Population on Lombok Island

No	City/Regency	Population
1	MSMEs in Mataram City	48
2	MSMEs in Lombok Barat Regency	120
3	MSMEs in Lombok Tengah Regency	113
4	MSMEs in Lombok Timur Regency	70
5	MSMEs in Lombok Utara Regency	112
Total		463

Source: Processed primary data (2016)

The variables analyzed in this study were classified and measured as explained in the following:

1. Organizational Culture as the first independent variable (X_1)
Organizational Culture is a system that has a meaning shared by members who distinguish the organization from other organizations (Robbins, 1998: 248). This organizational culture will form norms and become behavioral guidelines that determine the behavior of members and can be accepted by other members because the norms are good and right, starting from the top management to operational employees. Organizational Culture was measured using 7 question items. The questionnaire instrument used was adopted from Dzulkifli's research (2013) and has five measurement points, namely 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).
2. Work Motivation as the second independent variable (X_2)
Motivation is a factor that influences employees' work and enthusiasm for actively participating in the working process. The most famous motivation theory is the hierarchy of needs expressed by Abraham Maslow. The hypothesis says that in all human beings there are five levels of needs (Maslow in Robbins, 2006) that can serve as indicators, namely (a) Physiological, (b) Safety, (c) Social, (d) Award, and (e) Self-Actualization. Work Motivation was measured using 5 question items. The questionnaire instrument used was adopted from Reza's research (2010), with five measurement points, namely

- 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).
3. Reward System as the third independent variable (X_3)
Reward System is a form of financial, tangible services, and support benefits obtained by employees as part of a relationship as employees. The compensation or Reward System was measured using 6 question items. The questionnaire instrument used was adopted from Rustini's research (2015), with five measurement points, namely 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).
 4. Transformational Leadership as the fourth independent variable (X_4)
Transformational Leadership can be defined as leadership that includes organizational change efforts to achieve goals based on changes in the conditions and situations of the organization (Bass and Avolio, 1994). Transformational Leadership was measured using 20 question items, with five measurement points, namely 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree). The measurement of Transformational Leadership was based on the theory by Bass and Avolio (1994), in that it consists of Idealized Influence (charisma), Inspirational Motivation (inspiration), Intellectual Stimulation, and Individualized Consideration.
 5. Organizational Commitment as an intervening variable (Z)
Organizational Commitment is an attitude that shows the loyalty of an organization's members and is an ongoing process of how the organization's members direct their attention to the success and wellness of the organization that is shown through the capabilities and skills they possess. Organizational Commitment was measured using 6 question items developed by Mowday and Steers (1979). The questionnaire instrument used was adopted from Rahmi's research (2013), with five measurement points, namely 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).
 6. Employee Performance as a dependent variable (Y)
Employee Performance is a comparison between the actual work outcome produced by employees and the work standards set by the company (Reza, 2010). Employee Performance was measured using 6 question items. The measurement of Employee Performance was based on the indicators mentioned by Bernardin (1993), with five measurement points including 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).

VALIDITY AND RELIABILITY TESTS

The validity test in this study covered convergent validity and discriminant validity. An indicator is said to be valid based on convergent validity if the AVE value is >0.50 . Communality of >0.50 and a loading factor value of 0.50 to 0.60 for each indicator of a construct variable are considered sufficient (Chin, 1998 in Ghazali, 2012: 78).

Meanwhile, the reliability test of the measurement model (outer model) on the reflective indicators was carried out by looking at the Cronbach's Alpha and composite reliability values. An indicator is declared to be reliable or have good reliability if the Cronbach's Alpha value is >0.60 and the composite reliability value is >0.60 .

The measurement of the relationships between variables was conducted using Structural Equation Modeling (SEM), Partial Least Square (PLS) approach, and SmartPLS program version 2.0.

RESEARCH RESULTS AND DISCUSSION

As described in Table 1, about 463 MSMEs were operating throughout Lombok Island. As many as 463 questionnaires were distributed to the respondents. However, out of this number, the questionnaires returned by the respondents only numbered 449. Some of the questionnaires that were not returned were from MSMEs in Lombok Barat and Lombok Utara. The number of questionnaires distributed to MSMEs in Lombok Barat returned was only 115, and only 103 for the MSMEs in Lombok Utara. Meanwhile, the questionnaires distributed to MSMEs in Mataram City, Lombok Tengah Regency, and Lombok Timur regency were all returned. According to the aforementioned, the questionnaire return rate (response rate) was 96.98% ($449 / 463 \times 100\%$). A detailed explanation of the calculation of the return of the questionnaire can be seen in Table 2 below.

Table 2
Questionnaire Distribution and Return Rate

No	Description	Number of Respondents
1	MSMEs throughout Lombok Island	463
2	Non-returned Questionnaires	14
3	Returned Questionnaires:	
	▪ MSMEs in Mataram City	48
	▪ MSMEs in Lombok Barat Regency	115
	▪ MSMEs in Lombok Tengah Regency	113
	▪ MSMEs in Lombok Timur Regency	70
	▪ MSMEs in Lombok Utara Regency	<u>103</u>
	Total returned questionnaires	449
3	Response rate (449 / 463 x 100%)	96.98%

Source: Processed primary data (2016)

The questionnaire return rate was in a very high category. This is because the MSMEs in each city and regency in Lombok Island were easy to find, and the employees were enthusiastic about filling out the questionnaires. The large number of MSMEs and the moving average in the fields of agriculture, trade, mining, industrial processing, transportation, services, and others will certainly have a positive impact on the amount of employment in each region on Lombok Island.

DISCRIMINANT VALIDITY TESTING

The discriminant validity of the measurement model that had some reflexive indicators was assessed based on cross-loading measurements with the construct. Another method of assessing discriminant validity is to compare between the square root of average variance (AVE) value of each construct and the correlation between the construct and other constructs in the model. In this study both methods were used, namely by looking at the cross-loading and square root of average variance (AVE) values. The cross-loading value can be seen in the Appendix. Based on the cross-loading value of >0.50 for each variable to the variable construct, and greater to the constructs of other variables, the requirements of discriminant validity were met.

Another way of examining the discriminant validity is to look whether the AVE square root value > the correlation between latent constructs as shown in Table 3.

Table 3
Discriminant validity test by AVE Root and inter-construct correlation

	AVE	AVE Root
Organizational Culture	0.426749	0.653260
Transformational Leadership	0.322393	0.567796
Employee Performance	0.477865	0.691277
Organizational Commitment	0.451490	0.671930
Work Motivation	0.488745	0.699102
Reward System	0.471403	0.686587

Latent Variable Correlations

	Organizational Culture	Transformational Leadership	Employee Performance	Organization Commitment	Work Motivation	Reward System
Organizational Culture	1.000000					
Transformational Leadership	0.470883	1.000000				
Employee Performance	0.411104	0.464186	1.000000			
Organizational Commitment	0.354852	0.656491	0.509081	1.000000		
Work Motivation	0.504749	0.568460	0.414843	0.506157	1.000000	
Reward System	0.477635	0.609541	0.423230	0.483880	0.539435	1.000000

Source: PLS Output, (2016)

According to the results of the PLS algorithm process in the Appendix and Table 3, the discriminant validity determined by looking at the cross-loading value of >0.50 on the construct indicators and by looking whether the AVE Root value > correlation between latent constructs, it is stated that the indicators had good discriminant validity, or the indicators were declared valid.

RELIABILITY TEST

The reliability of the measurement model (outer model) on the reflective indicators was tested by looking at the Cronbach's Alpha and composite reliability values. An indicator is declared to be reliable or have good reliability if the

Cronbach's Alpha value is >0.60 and the composite reliability value is >0.60 . The results of the calculation of the Cronbach's Alpha and composite reliability values in this study are shown in Table 4.

According to the results of the PLS algorithm process in the Appendix and Table 3, the discriminant validity determined by looking at the cross-loading value of >0.50 on the construct indicators and by looking whether the AVE Root value $>$ correlation between latent constructs, it is stated that the indicators had good discriminant validity, or in other words, the indicator were declared valid.

Table 4
Composite Reliability and Cronbach's Alpha Values

	Composite Reliability	Cronbach's Alpha
Organizational Culture	0.787947	0.664592
Transformational Leadership Styl	0.876464	0.849171
Employee Performance	0.845289	0.784462
Organizational Commitment	0.830287	0.755936
Work Motivation	0.790323	0.643753
Reward System	0.841766	0.775174

Source: PLS Output, (2016)

According to Table 4, the reliability composite values were >0.60 , and the Cronbach's Alpha values were >0.60 . Thus, it can be concluded that all construct indicators were reliable or had good reliability. According to the validity testing and reliability testing, the indicators of the measurement model were all valid and reliable.

STRUCTURAL MODEL (INNER MODEL)

An evaluation of inner model was undertaken through a bootstrapping test. The structural model (inner model) evaluation was an evaluation of structural model to predict the causality between latent variables conducted through bootstrapping test. To predict the inner model causality, R-square for the dependent construct, Stone-Geiser Q-square test for predictive relevance, and t-test and significance of the coefficient of structural path parameters were used. The model was assessed with PLS by looking at the R-square for each exogenous latent variable. The results of the inner model evaluation are presented as follows.

Table 5
R-square Value

No	Variables	R-Square
1	Organizational Culture	
2	Transformational Leadership	
3	Employee Performance	0.259164
4	Organizational Commitment	0.460934
5	Work Motivation	
6	Reward System	

Source: PLS Output, (2016)

Table 5 shows that the R-square value for the Organizational Commitment was 0.460934 and for Employee Performance 0.259164. These results indicate that 46.09% of the variable Organizational Commitment can be explained by the variables Organizational Culture, Transformational Leadership, Work Motivation, and Reward System, while 53.91% is explained by other factors beyond this study. Furthermore, 25.91% of the variable Employee Performance can be explained by the variables Organizational Culture, Transformational Leadership, Work Motivation, and Reward System, while 74.09% is explained by other factors beyond this study.

In addition to the abovementioned method, another method for looking at the PLS model is to look at the predictive Q-square relevance for the construct model. The Q-square measures how well the observation value is generated by the model and its parameter estimation. A model is considered to have a relevant predictive value if the Q-square value is greater than 0 (>0), while the Q-square value is less than 0 (<0), indicating that the model lacks predictive relevance. Predictive-relevance Q-square value is obtained by the following formula:

Equation of Predictive-Relevance Q-Square

$$Q^2 = 1 - (1-R1^2) (1-R2^2)$$

$$Q^2 = 1 - (1 - 0.2591) (1 - 0.4609)$$

$$Q^2 = 1 - (0.7409) (0.5391)$$

$$Q^2 = 1 - 0.3994 = 0.6006$$

The result of the predictive-relevance Q-square calculation in this study is 0.6006. This means that the model in this study was feasible to use to explain the endogenous variable, namely Employee Performance.

HYPOTHESIS TESTING

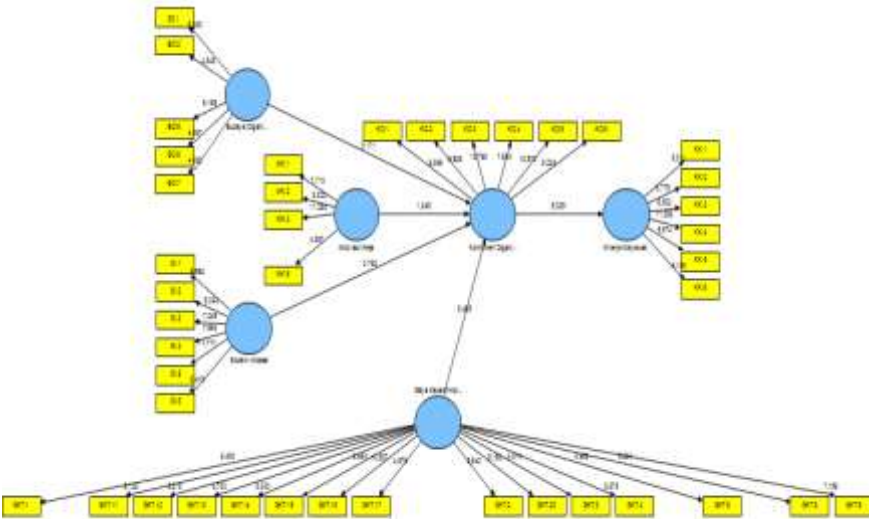
After conducting an analysis of the model, hypothesis testing was conducted. This testing was done by comparing between the T-table value and the T-statistics value generated from the bootstrapping process through PLS. A hypothesis is accepted (supported) if the T-statistics value is higher than the T-table value (1.65) at a significance level of 10% (two-tailed) (Ghozali, 2012: 85). The results of the PLS bootstrapping process can be seen in Figure 2 and Table 6.

Table 6
Path Coefficients (Mean, STDEV, T-Values)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STERR)
Organizational Culture -> Organizational Commitment	-0.015970	0.014238	0.093469	0.093469	0.170860
Transformational Leadership -> Organizational Commitment	0.511869	0.537788	0.093247	0.093247	5.489416
Organizational Commitment -> Employee Performance	0.509081	0.529787	0.095538	0.095538	5.328595
Work Motivation -> Organizational Commitment	0.178292	0.170420	0.096614	0.096614	1.845399
Reward System -> Organizational Commitment	0.083326	0.075088	0.105234	0.105234	0.791808

Source: PLS Output, (2016)

Figure 2
Bootstrapping Process Result



Hypothesis 1 states that Organizational Culture has a significant effect on Organizational Commitment. According to the PLS outputs presented in Table 6, the path coefficient was -0.016. The hypothesis testing results show that the path coefficient between Organizational Culture and Organizational Commitment had a T-statistics value ($0.170860 < T\text{-table } (1.65)$) at a significance level of 10% (two-tailed), indicating that Organizational Culture had no significant effect on Organizational Commitment. In other words, hypothesis 1 was rejected. This shows that Organizational Culture did not affect Organizational Commitment. The Organizational Culture of MSMEs in Lombok Island could not increase the Organizational Commitment.

Hypothesis 2 states that Work Motivation has a significant effect on Organizational Commitment. The path coefficient yielded was 0.178. The hypothesis testing results indicate that the path coefficient between Work Motivation and Organizational Commitment had a T-statistics value ($1.845399 > T\text{-table } (1.65)$) at a significance level of 10% (two-tailed), indicating that Work Motivation had a significant effect on Organizational commitment. In other words, hypothesis 2 was accepted. This shows that Work Motivation had an influence on

Organizational Commitment, in that Work Motivation will increase Organizational Commitment.

Hypothesis 3 states that Reward System has a significant effect on Organizational Commitment. The path coefficient yielded was 0.083. The hypothesis testing results indicate that the path coefficient between Reward System and Organizational Commitment had a T-statistics value ($0.791808 < T$ -table (1.65) at a significance level of 10% (two-tailed), indicating that Reward System had no significant effect on Organizational Commitment. In other words, hypothesis 3 was rejected. This shows that Reward system did not affect Organizational Commitment. The reward system applied by MSMEs in Lombok Island could not increase the Organizational Commitment.

Hypothesis 4 states that Transformational Leadership has a significant effect on Organizational Commitment. The path coefficient yielded was 0.512. The hypothesis testing results indicate that the path coefficient between Work Motivation and Organizational Commitment had a T-statistics value ($5.489416 > T$ -table (1.65) at a significance level of 10% (two-tailed), indicating that Transformational Leadership had a significant effect on Organizational Commitment. In other words, hypothesis 4 was accepted. This shows that Transformational Leadership influenced Organizational Commitment, in that Transformational Leadership will increase Organizational Commitment.

Hypothesis 5 states that Organizational Commitment has a significant effect on employee performance. The path coefficient yielded was 0.509. The hypothesis testing results indicate that the path coefficient between Organizational Commitment and Employee Performance had a T-statistics value ($5.328595 > T$ -table (1.65) at a significance level of 10% (two-tailed), indicating that Organizational Commitment had a significant effect on Employee Performance. In other words, hypothesis 5 was accepted. This shows that Organizational Commitment had an influence on Employee Performance, in that a clear Organizational Commitment will improve Employee Performance.

Hypothesis 1a states that Organizational Culture has a significant effect on Employee Performance with Organizational Commitment serving as an intervening variable. The testing results for hypothesis 1 show that Organizational Culture had no significant effect on Organizational Commitment (as an intervening variable) with a T-statistics value ($0.170860 < T$ -table (1.65)). Meanwhile, the testing results for hypothesis 5, which states that Organizational Commitment has a significant effect on employee performance, show a T-statistics value ($5.328595 > T$ -table (1.65)). Testing the mediating influence could not be

done because requirements determined by Baron and Kenny (1986) were not met, where for hypothesis 1, the exogenous variable Organizational Culture did not significantly influence Organizational Commitment, which served as an intervening variable. This means that the variable Organizational Commitment was not able to act as an intervening variable (mediator) in the relationship between Organizational Culture and Employee Performance in MSMEs throughout Lombok Island. Thus, hypothesis 1a was rejected.

Hypothesis 2a states that Work Motivation has a significant effect on Employee Performance with Organizational Commitment serving as an intervening variable. The testing results for hypothesis 2 indicate that Work Motivation had a significant effect on Organizational Commitment (as an intervening variable) with a T-statistics value (1.845399) > T-table (1.65). Meanwhile, the testing results for hypothesis 5, which states that Organizational Commitment has a significant effect on Employee Performance, show a T-statistics value (5.328595) > T-table (1.65). In other words, Work Motivation had a significant effect on Organizational Commitment (serving as an intervening variable), while Organizational Commitment had a significant effect on Employee Performance. The testing of the mediation hypothesis was done using the Sobel test. The magnitude of this indirect effect was calculated by multiplying the coefficients as follows: $(a \times b) = (0.178 \times 0.509) = 0.090$.

The standard error of the indirect effect of the variable Work Motivation on the variable Employee Performance was the result of the multiplication of the effect of Work Motivation on Organizational Commitment and the effect of Organizational Commitment on Employee Performance. The calculation result was obtained as follows.

$$\begin{aligned} Sab &= \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2} \\ &= \sqrt{(0.509)^2(0.096)^2 + (0.178)^2(0.095)^2 + (0.096)^2(0.095)^2} \\ &= \sqrt{0.0023 + 0.0002 + 0.000081} \\ &= \sqrt{0.002581} = \mathbf{0.0508} \end{aligned}$$

Therefore, the t value obtained is as follows: $t = \frac{ab}{Sab} = \frac{0.090}{0.0508} = 1.771653$

The T-statistics value (1.771653) > T-table (1.65) at a significance level of 10% (two-tailed) shows that Work Motivation had a significant effect on Employee Performance with Organizational Commitment serving as an intervening variable. In other words, hypothesis 2a was accepted. This shows that Organizational Commitment as an intervening variable had a significant influence

in the relationship between Work Motivation and Employee Performance in MSMEs throughout Lombok Island.

Hypothesis 3a states Reward System has a significant effect on Employee Performance with Organizational Commitment serving as an intervening variable. The testing results for hypothesis 3 show that Reward System did not have any significant effect on Organizational Commitment (as an intervening variable) with T-statistics $(0.791808) < T\text{-table } (1.65)$. Meanwhile, the testing results for hypothesis 5, which states that Organizational Commitment has a significant effect on Employee Performance, show that the T-statistics $(5.328595) > T\text{-table } (1.65)$. Testing the mediating influence could not be done, because the requirements determined by Baron and Kenny (1986) were not met, where for hypothesis 3, the exogenous variable Reward System did not significantly influence Organizational Commitment, which served as an intervening variable. This means that the variable Organizational Commitment was not able to act as an intervening variable (mediation) in the relationship between Reward System and Employee Performance in MSMEs throughout Lombok Island. Thus, hypothesis 3a was rejected.

Hypothesis 4a states that Transformational Leadership has a significant effect on Employee Performance with Organizational Commitment serving as an intervening variable. The testing results for hypothesis 4 show that Transformational Leadership had a significant effect on Organizational Commitment (as an intervening variable) with T-statistics value $(5.489416) > T\text{-table } (1.65)$. Meanwhile, the testing results for hypothesis 5, which states that Organizational Commitment has a significant effect on Employee Performance, show that the T-statistics value $(5.328595) > T\text{-table } (1.65)$. In other words, Transformational Leadership had a significant effect on Organizational Commitment (as an intervening variable), and Organizational Commitment had a significant effect on Employee Performance. The testing of the mediation hypothesis was done using the Sobel test. The magnitude of this indirect effect was calculated by multiplying the coefficients as follows: $(a \times b) = (0.512 \times 0.509) = 0.260$.

The standard error of the indirect effect of the variable Work Motivation on the variable Employee Performance was the result of the multiplication of the effect of Work Motivation on Organizational Commitment and the effect of Organizational Commitment on Employee Performance. The calculation result was obtained as follows.

$$\begin{aligned}
 Sab &= \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2} \\
 &= \sqrt{(0.509)^2(0.093)^2 + (0.512)^2(0.095)^2 + (0.093)^2(0.095)^2} \\
 &= \sqrt{0.0020 + 0.0023 + 0.000072} \\
 &= \sqrt{0.004372} = \mathbf{0.0661}
 \end{aligned}$$

Therefore, the t value obtained is as follows: $t = \frac{ab}{Sab} = \frac{0.260}{0.0661} = 3.933434$

The T-statistics value (3.933434) > T-table (1.65) at a significance level of 10% (two-tailed) shows that Transformational Leadership had a significant effect on Employee Performance with Organizational Commitment serving as an intervening variable. In other words, hypothesis 4a was accepted. This shows that Organizational Commitment as an intervening variable had a significant influence in the relationship between Transformational Leadership and Employee Performance in MSMEs throughout Lombok Island.

STRUCTURAL EQUATION MODEL (INNER MODEL)

The structural model equations obtained based on the results of inner model testing and hypothesis testing are as follows.

$$\begin{aligned}
 KK &= \text{BO1BO} + \gamma_2\text{MK} + \gamma_3\text{SI} + \gamma_4\text{GKT} + \gamma_5\text{KO} + \zeta \\
 KK &= -0.016\text{BO} + 0.178\text{MK} + 0.083\text{SI} + 0.512 + 0.509\text{KO} + \zeta
 \end{aligned}$$

The final structural model in Figure 4.6 is an equation that has shown the effect of each latent variable in accordance with the results of the hypothesis testing.

CONCLUSIONS

Some conclusions that can be drawn from this study are as follows:

1. This study found no evidence of a significant direct effect of Organizational Culture on Organizational Commitment.
2. This study found evidence of a significant direct effect of Work Motivation on Organizational Commitment.
3. This study found no evidence of a significant direct effect of Reward System on Organizational Commitment.
4. This study found evidence of a significant direct effect of Transformational Leadership on Organizational Commitment.
5. This study found evidence of a significant direct effect of Organizational Commitment on Employee Performance.

6. This study found no evidence that the variable Organizational Commitment as an intervening variable could influence the relationship between Organizational Culture and Employee Performance.
7. This study found evidence that the variable Organizational Commitment as an intervening variable could influence the relationship between Work Motivation and Employee Performance.
8. This study found no evidence that the variable Organizational Commitment as an intervening variable could affect the relationship between Reward Systems and Employee Performance.
9. This study found evidence that the variable Organizational Commitment as an intervening variable could influence the relationship between Transformational Leadership and Employee Performance.
10. Subsequent research can reexamine variables that had no significant effect in different research areas and add other factors as research variables.

THE INFLUENCE OF BUSINESS CAPITAL, EDUCATION LEVEL, BUSINESS PERIOD, AND DIGITAL MARKETING ON MSMEs' REVENUE (CASE STUDY IN MSMEs, SEMARANG CITY, CENTRAL JAVA)

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Abstract

In recent years, the Government has focused on the development of MSMEs (micro, small, and medium enterprises). The Government has done some efforts, including simplifying the association between MSMEs and banks and conducting more innovative, creative development of businesses, such as utilizing existing media to facilitate marketing (online store sites, e-commerce, and so on). The purpose of this study was to determine the effect of business capital, education level, business period, and digital marketing on MSMEs' revenue in Semarang, Central Java. This study used a quantitative method and SPSS. This study used a sample of 50 MSMEs in Semarang, which was selected using the purposive sampling technique. The data used were primary data collected using questionnaires. The analysis technique used was a quantitative analysis, namely multiple regression analysis. The results of this research show that the variables Business Capital and Business Period had a significant positive influence on the revenue of the MSMEs in Semarang City. Meanwhile, the variables Education Levels and Digital Marketing had no effect on Revenue. The R² value was 0.766. This means that statistically, 76.6 percent of the variation of MSMEs' revenue was influenced by Business Capital, Education Level, Business Period, and Digital Marketing, while the remaining 23.4 percent was influenced by other variables outside the model.

Keyword: business capital, education level, digital marketing, MSME revenue.

INTRODUCTION

The micro, small, and medium enterprises (MSMEs) in Indonesia are one of the priorities in the national economic development in addition to the fact that MSMEs are the backbone of a populist economic system that is not only aimed at reducing the problem of inequality between revenue groups and between businesses but also at poverty alleviation and employment. The development of MSMEs will expand the economic base and can make a significant contribution in accelerating structure through the improvement of regional and national economic resilience (Kurniawan, 2011). According to Rosenfeld (2002), small business development is a national development driver. The development of micro, small, and medium enterprises (MSMEs) is endeavored to evenly reach rural areas.

The micro, small, and medium enterprises (MSMEs) sector plays a very large role in the development and economic turnover in Indonesia. The strength of MSMEs has also been proven by their persistence in the face of the 1998 crisis and their role in moving the wheels of the Indonesian economy after big businessmen and investors in Indonesia went bankrupt. This is because MSMEs produce goods and services with low elasticity. They also use their own capital and do not rely much on banks, so they are not affected by rising interest rates. MSMEs are a basis for a people's economy that absorbs a lot of workers, increases the growth of Gross Domestic Product (GDP), and builds a rural economy that can reduce unemployment, as poverty is one of the major problems in Indonesia. This can be proved by the following data.

Table 1
Development of Micro, Small, and Medium Business
Units in 2012–2013 (Unit)

Indicators	2012	2013	Increase
	Number	Number	%
Total MSMEs	56,534,592	57,895,721	2.41
Micro enterprises	55,856,176	57,189,393	2.39
Small enterprises	629,418	654,222	3.94
Medium enterprises	48,997	52,106	6.35
Large enterprises	4,968	5,066	1.97

Source: Ministry of Cooperatives and Small and Medium Enterprises, 2016

Table 1 shows that the number of MSMEs, from 2012 to 2013, grew by 2.41% or up to 1,361,129 business units. This presentation was bigger than the growth of large businesses by only 1.97% in the same year, with an increase of 98 business units.

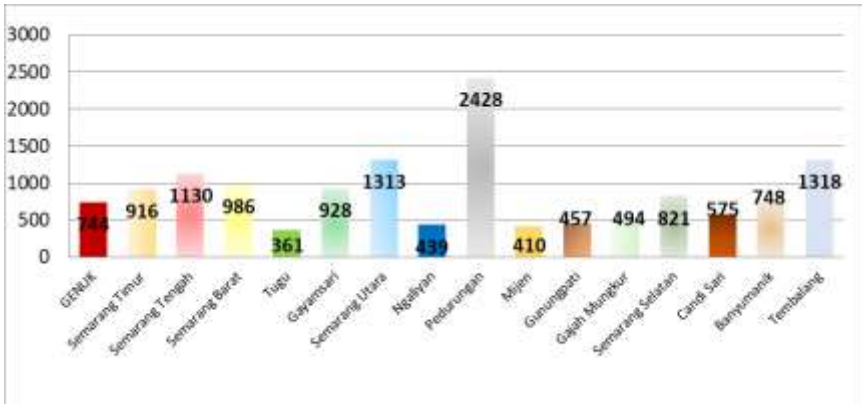
Table 2 Development of Labor for Micro, Small, and Medium Enterprises in 2012–2013 (number of People).

Indicators	2012	2013	Increase
	Number	Number	%
Total MSMEs	107,657,509	114,144,082	6.03
Micro enterprises	99,859,517	104,624,466	4.77
Small enterprises	4,535,970	5,570,231	22.80
Medium enterprises	3,262,023	3,949,385	21.07
Large enterprises	3,150,645	3,537,162	12.27

Source: Ministry of Cooperatives and Small and Medium Enterprises, 2016

In terms of development of employment, it can be seen in Table 2 that MSMEs experienced a growth of 6.03% (6,486,573 people). This presentation may be much lower than large businesses in percentage that could reach 12.27%, but it was higher in the quantity, with large businesses only had an increase of 386,547 people.

Each regional economic development effort is aimed at increasing the types and number of job opportunities (Fitanto, 2009). With economic development based on the potential of each area, micro, small, and medium enterprises (MSMEs) come out as part of the strategic efforts to accelerate structural growth in order to improve many people's lives and as a forum for joint business activities for producers and consumers. It can also be seen from the number of MSMEs in Semarang today as can be seen in Table 3, with only 386,547 people employed.



Source: BPS Semarang city

Graph 1
Distribution of MSMEs in Semarang City by District

The graph above shows that the number of MSMEs in Semarang City has grown a lot, with a total of 14,089 MSMEs found in Semarang City. It can also be concluded that among the districts in Semarang City, Pedurungan was a district that had a fairly wide MSMEs development as reflected in the large number of MSMEs contained there.

THEORETICAL STUDY

Business Capital

Business capital is used to support the smooth operation of a company (Ahiawodzi, 2012). According to some economic principles, capital is goods produced by an economic system that is used as an input to produce goods and services in the future. In this case, capital to traders is one of the factors of production that influences the level of revenue, in that their own capital has a very strong relationship with the success or failure of their businesses. As in the classical sense of capital, capital refers to the production which is used to produce further. Without sufficient capital, the smooth running of a business will be affected, which eventually will also affect the revenue earned. In accordance with the characteristics of the business scale, MSMEs do not require too large an amount of capital (Ashari, 2006).

Education

Education, or more broadly human capital, can contribute to development. This is because education is basically a form of savings, causing accumulation of human capital and aggregate output growth if human capital is an input in the function of aggregate production. Health is at the core of prosperity, and education is essential to achieving a decent life. Education has an important role in shaping the ability of a developing country to absorb modern technology and to develop capacity to create sustainable growth and development (Todaro and Smith, 2006).

According to Law No. 20 of 2003 on the National Education System, education is a conscious and planned effort to realize the learning atmosphere and the learning process of students who actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by him/her, society, nation, and country.

Business Period

In running a trading business, the duration of the business plays an important role in the process of conducting trading business (Utama, 2012). The length of a business can create a business experience, which enables traders to directly identify the tastes desired by business relationships (Asmie, 2008). The period of a trading business affects the level of revenue because it affects the increase in productivity and performance of traders, which also increases efficiency and reduces production costs (Firdausa, 2013).

Micro, small, and medium enterprises (MSMEs) have an important role in the pacing of the Indonesian economy, especially in job creation and household empowerment that support household revenue. The existence of MSMEs is expected to spur the economy amid the current economic slowdown. Utilizing the concept of digital technology-based marketing (digital marketing) provides hope for MSMEs to develop into a center of economic power.

Technology Concept and Digital Marketing

Regarding technology concept, Suparmoko and Irawan (2008) state that technology means a change in production function that appears in existing production techniques. Therefore, technical changes are always sought to allow for maximum use. The revenue of micro, small, and medium enterprises (MSMEs) is influenced by the technology used to market their products. Technology has a positive effect on the revenue that MSMEs will receive, in that the more modern the technology used, the more the revenue received by MSMEs. Thus, efforts will

be made to reform the technology used by MSMEs to meet the revenue expectations.

Digital technology has changed the way humans communicate, act, and make decisions. Even marketing activities cannot be separated from the influence of digital technology. The term digital-based marketing (digital marketing) has evolved from the beginning of goods and services marketing activities that use digital channels to a broader understanding of the process of obtaining consumers, building consumer preferences, promoting brands, maintaining consumers, and increasing sales.

Chaffey (2013) defines digital marketing as the use of technology to assist marketing activities that aim to increase consumer knowledge by adjusting to their needs.

Digital marketing is also defined as a marketing activity that uses internet-based media (Wardhana, 2015). The Internet is a powerful tool for business. Roger in Rahardjo (2011) revealed the characteristics of the internet as follows:

1. Interactivity, which refers the ability of technology devices to facilitate interpersonal communication such as face-to-face communication. Communication is conducted in a very interactive way, so participants can communicate more accurately, effectively, and satisfactorily.
2. Demassification, by which messages can be exchanged to participants who are involved in large numbers.
3. Asynchronous, which refers to the ability of communication technology to send and receive messages at the time each participant wants.

Micro, small, and medium enterprises (MSMEs) have an important role in the pacing of the Indonesian economy, especially in job creation and household empowerment that support household revenue. The existence of MSMEs is expected to spur the economy amid the current economic slowdown. Utilizing the concept of digital technology-based marketing (digital marketing) provides hope for MSMEs to develop into a center of economic power.

The Concept of Micro, Small, and Medium Enterprises (MSMEs)

The characteristics of micro, small and medium enterprises (MSMEs) in Indonesia according to Law of the Republic of Indonesia Number 20 of 2008 on Micro, Small, and Medium Enterprises (MSMEs) can be grouped based on profit or wealth as follows.

1. The criteria for micro business are as follows:
 - the business has a maximum net asset of Rp50,000,000 (fifty million rupiahs), excluding land and business premises and
 - the business has annual sales of a maximum of Rp300,000,000.00 (three hundred million rupiahs).
2. The criteria for small business are as follows:
 - the business has a net worth of more than Rp50,000,000 (fifty million rupiahs) up to a maximum of Rp500,000,000.00 (five hundred million rupiahs), excluding land and buildings and
 - the business has annual sales of more than Rp300,000,000.00 (three hundred million rupiahs) up to a maximum of Rp2,500,000,000.00 (two billion five hundred million rupiahs).
3. The criteria for medium business are as follows:
 - the business has a net worth of more than Rp500,000,000.00 (five hundred million rupiahs) up to a maximum of Rp10,000,000,000.00 (ten billion rupiahs), excluding land and buildings and
 - the business has annual sales of more than Rp2,500,000,000.00 (two billion five hundred million rupiah) up to a maximum of Rp50,000,000,000.00 (fifty billion rupiahs).

The aims of this research are as follows:

1. to determine the effect of capital, education level, and technology simultaneously on the revenue of MSMEs in Semarang City and
2. to determine the effect of capital, education level, and technology partially on the revenue of MSMEs in Semarang City.

RESEARCH METHOD

This research was conducted in Semarang City, Central Java Province. The main reason for the selection of this location is because the Semarang City is the capital of Central Java Province, making it one of the economic centers in Central Java. In addition, the city of Semarang is the largest contributor of GRDP in Central Java Province. The subjects of this research were micro, small, and medium enterprises (MSMEs), and the object was the influence of capital, education level, and technology on the revenue of micro, small, and medium enterprises in Semarang City.

The primary data in this study were the data collected by distributing questionnaires and the results of interviews with respondents, and the secondary data were MSME players who had digital marketing media, such as website, social media, marketplace, or did digital marketing.

The population in this study was the micro, small, and medium business actors in the city of Semarang. The sampling technique chosen in this study was the purposive sampling technique. The sample size used in this study was 50.

The data collection methods used in this study were interviews, observations, and questionnaires. This study used the multiple linear regression data analysis technique. The hypotheses in this study were tested using simultaneous test (F-test) and partial test (t-test) to determine the effects between variables. The classic assumption tests used in this study were normality test, heteroscedasticity test, and multicollinearity test.

RESULTS AND DISCUSSION

1. Characteristics of Respondents

Respondents' characteristics of the study were grouped by gender and education level. Table 3 describes the distribution of respondents by sex, and it shows more female respondents than their male counterparts.

Table 3. Distribution of Respondents based on Gender

No	Gender	Number of Respondents	
		Number	%
1	Male	14	28
2	Female	36	72
	Total	50	100

Source: Primary Data processed in 2018

Table 4 shows the distribution of respondents based on education, and it also shows that respondents who pursued S1 education (Bachelor's degree) were dominant.

Table 4. Distribution of Respondents based on Education Level

No	Education Levels	Number of Respondents	
		Number	%
1	Junior Secondary School	1	2
2	Senior Secondary School	14	28
3	Diploma	7	14
4	S1 (Bachelor's Degree)	28	56
	Total	50	100

Source: Primary Data processed in 2018

2. Multiple Linear Regression Analysis

This analysis was used to determine the magnitude of the effect of Business Capital (X_1), Education Level (X_2), Business Period (X_3), and Digital Marketing (D) on the Revenue of MSMEs in Semarang City. Multiple linear regression tests were conducted with SPSS 24, and the following regression equation and result were obtained:

$$\hat{Y} = 3.683 + 0.756X_1 + 0.026X_2 + 0.015X_3 + 0.028D$$

$$t_{\text{count}} = (5.969) \quad (0.536) \quad (2.857) \quad (0.093)$$

$$Se = (0.725) \quad (0.047) \quad (0.226) \quad (0.012)$$

$$Sig = (0.000) \quad (0.595) \quad (0.006) \quad (0.926)$$

$$R = 0.766 \quad F_{\text{count}} = 36.887 \quad Sig = 0.000$$

Because F statistics value (36.888) > F table (2.81), H_0 was rejected. This means that Business Capital, Education Level, Business Period, and Digital Marketing simultaneously affected the Revenue of MSMEs in Semarang City.

The R^2 value was 0.766. This means that statistically, 76.6 percent of the variation of MSME revenue was influenced by Business Capital, Education Level, Business Period, and Digital Marketing, while the remaining 23.4 percent was influenced by other variables outside the model.

Because the t statistics value of the variable Business Capital (5.969) > t table (1.678), H_0 was rejected, and H_1 was accepted. This means that Business Capital partially had a significant positive effect on the Revenue of MSMEs in Semarang City.

Because the t statistics value of the variable Education Level ($0.536 < t$ table 1.678), H_2 was rejected. This means that Education Level did not partially affect the Revenue of MSMEs in Semarang City.

Because the t statistics value of the variable Business Period variable ($2.857 > t$ table 1.678), H_3 was accepted. This means that Business Period partially had a significant positive influence on the Revenue of MSMEs in Semarang City.

Because the t statistics value of the variable Digital Marketing ($0.093 > t$ table 1.678), H_4 was rejected. This means that Digital Marketing did not partially affect the Revenue of UMKM in Semarang City.

3. Discussion of Research Results

a. The Simultaneous Influence of Business Capital, Level of Education, Business Period, and Digital Marketing to MSMEs' Revenue

Based on the results of the F test above, Business Capital, Education Level, Business Period, and Digital Marketing simultaneously influenced the Revenue of MSMEs in Semarang City. This is supported by the results of the research by Laili (2017) on the effect of business capital, labor, working hours, and length of business on the revenue of credit counter businesses in Gresik sub-district, which found that business capital simultaneously has a significant effect on revenue.

b. The Influence of Business Capital on MSMEs' Revenue

Based on the results of the t test above, Business Capital partially had a significant positive effect on the revenue of MSMEs in Semarang City. According to Riyanto (2001), greater company's capital will have a positive effect on the revenue received. Similar to that statement, in this research, Business Capital had a positive effect on the revenue of MSMEs.

c. The Influence of Education Levels on MSMEs' Revenue

Education is a pioneer in the future development of a country because the progress of a country is seen from the size of the human resources of the country and because education involves character building and at the same time maintains human identity. Based on the results, education level had a positive, but insignificant effect on the revenue of MSMEs in the city of Semarang. Although the effect was not statistically significant, education level will, in general, definitely increase MSME revenue because people with higher levels of education will be able to generate higher revenue from their business with various revenue

generation strategies, be it in marketing, service improvement, or improvement of the quality or quantity of the goods traded.

This is supported by the research conducted by Noor Fitria (2014), which states that the higher the education of a trader, the greater the revenue earned. Dance Amnesi (2013) and Triarya Nugraha (2013) also state that education has a positive effect on revenue. Based on this, entrepreneurs increase their level of education for their MSMEs' trading businesses.

d. Influence of Business Period on MSMEs' Revenue

Based on the results of the study, Business Period had a significant influence on the revenue of the MSMEs in Semarang City. Business period reflects the business's survivability. The longer the business is run, the more the experiences gained. This allows entrepreneurs to survive various obstacles in running their business. As found in Wardana's (2013) study, the business period of registered and non-registered shoes cases in Sooko District, Mojokerto Regency, had a significant influence on the operating revenue.

e. The Effect of Digital Marketing on MSMEs' Revenue

Based on the results of the t test above, Digital Marketing partially had a positive, but insignificant, effect on the Revenue of MSMEs in Semarang City. This is because the MSMEs were still not focused on using digital marketing, the only factor that will able to increase sales or profits of MSMEs.

CONCLUSIONS

Based on the previous discussion, it can be concluded as follows:

1. business capital, education level, business period, and digital marketing simultaneously had a significant effect on revenue;
2. partially, business capital and business period had significant positive influences on the revenue of the MSMEs in Semarang City, while education level and digital marketing had no effect on revenue; and
3. to increase the production and revenue of the MSMEs engaged in the informal sector in Semarang City, it is necessary to support with various factors of production, especially business capital, that is improved through training, skills courses, because this production factor is very significant in increasing MSMEs' revenue.

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INFLUENCING FACTORS IN INCREASING ACCRUED RETURN “SUKUK IJARAH” AND “SUKUK WAKALAH” ON OUTSTANDING OF GOVERNMENT SECURITIES

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Abstract

Sukuk Ijarah & Sukuk Wakalah as outstanding government securities aim to give more benefit for issuers and investors. Investors expect accrued return although they continue to implement strategies to minimize risk of investment through a portfolio analysis to mention the pool of investments with a diversified process to obtain risk levels. This research is quantitative research and used secondary data. The results of the study show that the variables Issuer Asset, Sharia Compliance, and Variety of *Sukuk* Prices increased the return of *sukuk*.

Keywords : *sukuk ijarah*, *sukuk wakalah*, accrued return, investment risk, investors

INTRODUCTION

With Indonesia's attempt to attract investors to invest in *sukuk ijarah* and *sukuk wakalah* under the existing conditions in Indonesia, in conjunction with the potential that Indonesia possesses, *sukuk* plays an important role as an alternative financing source to the country. The growth of *sukuk* in Indonesia is very rapid but the risks faced by investors remain a consideration. The Indonesian Government has added *sukuk* instruments in the form of *sukuk wakalah* and *sukuk ijarah*. An arising problem is that only a small part of the Indonesian society understand the sharia financial system, including *sukuk*. *Sukuk* is a kind of investment instrument that has few and low incentives or investment returns, which are indicators of the use of Islamic finance. *Sukuk* is one of the sources of financing of the Indonesian Government. To make an investment, investors seek to obtain an optimal return in accordance with the risk compensation that will be received. Thus, they must be updated on the market conditions and have as much information regarding stock prices as possible.

In light of public's limited knowledge on *sukuk* and its positive impact, the Government issued Law Number 19 of 2008 on State Sharia Securities to enable the public to freely choose the process of weighing risk with *sukuk* allotments issued by the state through the appointment of *sukuk*-selling agents and several securities companies.

Rifki (2008: 64) explains that the difference between Islamic bonds and conventional bonds lies in the possibility of profit-sharing. Islamic bonds are higher than conventional bonds. The state sharia securities (SBSN) or *sukuk* are one of the financing instruments of the state budgeting, with the main objective being to finance the state budget (APBN) deficit. This includes the financing of Government projects and Government policies to increase development and state expenditures. In this case, Government financing does not only come from tax or non-tax revenues, but also the support of some financing instruments, including state *sukuk*.

Investors find investing in *sukuk* as highly affordable. They can make investment starting from Rp5 million to a maximum of Rp5 billion. However, the level of return(s) obtained by investors must be balanced with the level of investment.

1. Problem Formulation or Research Focus

Based on the background above, the research problems formulated are as follows:

- a. Do *sukuk* issuer's assets increase the returns on *sukuk ijarah* and *sukuk wakalah*?
- b. Does *sukuk* investors' sharia compliance affect the return on *sukuk ijarah* and *sukuk wakalah*?
- c. Does the price variety of *sukuk* affect the return on *sukuk ijarah* and *sukuk wakalah*?

2. Research Objectives

The research objectives to be achieved in this study are:

- a. To assess the effect of *sukuk* issuers' assets on the return on *sukuk ijarah* and *sukuk wakalah*;
- b. To assess the effect of *sukuk* investors' sharia compliance on the returns on *sukuk ijarah* and *sukuk wakalah*; and
- c. To assess the effect of price variety of *sukuk* on the returns on *sukuk ijarah* and *sukuk wakalah*.

METHOD

2.1 Platform Theory and Hypothesis Development

Achmad & Handayani (2015) revealed that budget deficit has occurred in Indonesian. The Indonesian Government made an effort to cover the budget deficit through the use of domestic debt. The debt takes the form of bonds. The bonds issued by the Indonesian Government in the effort to cover the budget deficit are expected to boost the economic growth.

2.2 Assets are future economic benefits that can potentially have both direct and indirect economic impacts on investment issuers. One of the strategies to minimize investment risk is to utilize investors' ability to view portfolios through a diversification process. The portfolio theory proposed by Markowitz (1952) states that investment risk can be reduced by combining assets into one portfolio.

2.3 Compliance with Sharia

Yusof et al. (2016) define sharia disobedience as non-compliance with Islamic financial provisions. In Indonesia, AAOIFI, which regulates sharia rules and principles, has established provisions on matters relating to sukuk issuance, including provisions on *sukuk* issuance documents and assets presented as objects, and has determined that *sukuk* issuance should avoid elements prohibited by Islamic sharia, namely *riba*, *gharar*, *maisir*, *ghubn*, *ikrah*, *taghrir*, and *ghalat*.

According to Ghauri (2012) as well as Ghani and Nik (2017), sharia risk occurs due to the passing rate of Islamic financial products, transactions, and documents in the economy of society to comply with sharia.

2.4 Price Variety

Salim (2011) states that price variety is the prices paid to *sukuk* winners according to the price of the *sukuk* bid submission as set out under the general provisions of the Fatwa of the National Sharia Board No: 70/DSN/MUI/VI/2008 on the Method of State Sharia Securities Issuance. According to Cheng (2014), the presentation of various market benefits and prices will be considered in investors' practical assessment to determine the shares chosen in the investment.

2.5 Return

According to El-Haj et al. (2017), return is the result obtained from investment. Goerge & Jones (2002) state that stock consists of yield of cash flows that are paid periodically to shareholders in the form of dividends, while capital gain is the difference between stock prices at the time of sale; capital loss is the opposite.

2.6 Outstanding Government Securities (Government Sharia Securities)

Various challenges faced in the optimization of the *sukuk* market are the lacking number of financial institutions that can manage *sukuk* funds, high *sukuk* issuance costs when compared to conventional bonds, and low returns when compared to the costs incurred when buying *sukuk*.

The opening of the *sukuk* trading facility in the secondary market provides a convenience for investors who need liquidity. According to Suminto (2015: 157), the benefits of trading *sukuk* in the secondary market include the following:

- 1) it becomes an exit window for investors;
- 2) it helps with market pricing and valuation (mark to market);
- 3) it allows liquidity for investment instruments;
- 4) it increases investor confidence; and
- 5) it can be widely accepted as collateral.

Tradable *sukuk* in the secondary market are the *sukuk* which can be traded according to the sharia law and the AAOIFI Sharia Standard No. 17, which can then be confirmed in 2008 through the Sharia. It has been determined that it is allowed to buy and sell *sukuk* which presents ownership of tangible assets. *Sukuk* which presents ownership of debt cannot be traded because according to the principle of sharia, debt is a form of usury, and selling and purchasing assets that do not yet exist is the same as selling and purchasing *gharar*. To avoid usury, transfer may be made on condition that there should be no additional transfer of debt/receivables to other parties.

Furthermore, based on the provisions of AAOIFI Sharia Standards Number 17 and the Fatwa of the National Sharia Board (DSN-MUI) regarding State *Sukuk*, state *sukuk* trade is of the following two types of structures:

- 1) Sale-and-Lease-Back *Sukuk Ijarah*

The Sale and Lease Back *sukuk ijarah* trade is in line with the provisions of AAOIFI Sharia Standards Number 17 (5/2/4) on the tradability of

sukuk in the possession of tangible assets that are leased, thus this type of *sukuk* can be traded on the secondary market (tradable). It has been stated in the Fatwa of the National Sharia Board Number 72/2008 special provision number 8 that holders of *sukuk ijarah* can transfer ownership of *sukuk* to another party at an agreed price.

2) Asset-to-Be-Leased *Sukuk Ijarah*

According to the provisions of AAOIFI Sharia Standard Number 17 (4/2/5), it is permissible to trade asset-to-be-leased *sukuk ijarah*. As also has been explained in the Fatwa of the National Sharia Board Number 76/2010 number 10, ownership of *sukuk* can be transferred at an agreed price, making *sukuk* tradable.

3) *Sukuk Wakalah*

It can be defined as a proof of ownership as the *sukuk* issued based on sharia principles is a proof of ownership of part of assets in investment activities managed by *sukuk* issuance. A company as representative of SBSN holders, in line with AAOIFI Sharian Standard Number 17 (5/2/16) concerning trade permits *mudharabah*, *musyarakah* and *sukuk wakalah*, in accordance with the DSN-MUI Fatwa Number 95 / DSN-MUI / VII / 2014

Sukuk is a non-usury financial instrument in line with the provisions of DSN-MUI No. 01 / DSN-MUI / III / 2012 concerning project criteria in accordance with sharia principles, the use of the project is not for purposes related to the *riba* management, *maysir* and *haram*

One of the Government's efforts for *sukuk* instruments is to target state funding so that *sukuk* increases from year to year in the State Budget (APBN). During a certain period many projects are funded from *sukuk* investments, for example, projects related to infrastructure construction in areas that are difficult to reach, such as the construction of roads in Papua and Maluku, toll roads, buildings, and so on.

As legal bases for financing the *sukuk* project the Government enacted Law Number 19 of 2008 on State Sharia Securities, on which *sukuk* issuance and *sukuk* project financing are based, Government Regulation Number 56 of 2011 on Project Financing through the Issuance of State Sharia Securities, and Regulation of the Minister of Finance. Meanwhile, the purposes of *sukuk* issuance are as follows: to diversify State financing; to accelerate infrastructure project development; to increase the national independence in carrying out national development; to

develop Islamic financial markets; to improve public services; and to increase transparency in Government activities.

Financial project mechanism can be identified for the project underlying scheme and the financial project proposed in the framework of infrastructure development, public service provision, domestic industry empowerment, and other development in accordance with the government's strategic policy.

2.7 Hypothesis is a temporary answer to a phenomenon or problem that is interesting to study until the one to be examined is collected. Based on existing theories, the researchers formulated the research hypotheses as follows:

H1: *Sukuk* issuers' assets increase the returns on *sukuk ijarah* and *sukuk wakalah*.

H2: *Sukuk* investors' sharia compliance increases the returns on *sukuk ijarah* and *sukuk wakalah*.

H3: Price variety increases the returns on *sukuk ijarah* and *sukuk wakalah*.

2.8 Research Method

Research method is defined as a scientific way to obtain valid data with the purpose of finding, developing, and proving data by a certain knowledge, so they can be used to understand, solve, and anticipate a problem (Sugiyono, 2012: 16). Quantitative research method is one type of research specifications that is systematic, planned, and measurable (Sugiyono, 2012: 16). This study focuses on the factors that influence the increase in returns on State Sharia Securities with the variables analyzed being Issuers' Assets, Sharia Compliance, and Prices Variety. To identify factors that influence the availability of state *sukuk*, the following variables were identified:

1. the dependent variable in this study was Return on investment (accrued return) and
2. the independent variables in this study included *Sukuk* Issuer's Assets, Sharia Compliance, and Investment Price Variety.

2.8.1 Population and Sample

The population in this study was the *sukuk ijarah* and *sukuk wakalah* listed on the Indonesia Stock Exchange and subsidiaries of the Indonesia Stock Exchange and Bank Indonesia.

The sample in this study was selected using the non-probability sampling (non-random selection) technique by listing tradable *sukuk ijarah* and *sukuk wakalah* documents during the 2012–2015 publication year.

2.8.2 Data Collection Technique

The data needed in this study were found and completed from some sources of information, including Bank Indonesia and the Indonesia Stock Exchange. The research data collected were then recorded and calculated. The secondary data were further processed with SPSS then analyzed.

RESULTS

1. Description

The sample used in this study consisted of 60 (sixty) *sukuk*, including *sukuk ijarah* and *sukuk wakalah*. This study used data of the observation period starting from January 2012 to December 2015, with different periods of time for each state *sukuk* transaction.

a. Asset Value

Table 4.1 Value Of Assets

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ASSET_VALUE_X1	60	111509.10	129661.10	123190.7000	6861.02687
Valid N (listwise)	60				

Source: Analyzed Secondary Data

From Table 4.1 it can be seen that the Asset Value had a minimum value of 111509.10, a maximum value of 129661.1, an average value of 123190.7, and a standard deviation value of 6861.02.

b. Sharia Compliance**Table 4.2 Sharia Compliance**

SHARIA_COMPLIANCE_X2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-Compliance	24	40.0	40.0	40.0
	Compliance	36	60.0	60.0	100.0
	Total	60	100.0	100.0	

Source: Analyzed Secondary Data

Table 4.2 shows that non-compliance occurred in as many as 24 (40%) sample units, while compliance occurred in 36 (60%) sample units, meaning that the majority of investors were compliant.

c. Price Variety**Table 4.3 Price Variety**

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PRICES_VARIETY_X3	60	38109.68	1262052.00	744186.647	391168.1449
Valid N (listwise)	60				

Source: Analyzed Secondary Data

From the table 4.3 it can be seen that prices variety had a minimum value of 38109.68, a maximum value of 129661.1, an average value of 744186.647, and a standard deviation value of 391168.14.

d. Return**Table 4.4 Return**

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Return Y	60	14596.51	27875.28	21984.2820	4942.21501
Valid N (listwise)	60				

Source: Analyzed Secondary Data

From Table 4.4 it can be seen that return had a minimum value of 14596.51, a maximum value of 27875.28, an average value of 21984.2820, and a standard deviation value of 4942.21501.

2. Multiple Linear Regression Analysis

F-test was used to test the regression coefficients together. The results of the F-Test in this study can be seen in table 4.5.

Table 4.5 F-Test Results

ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1032438525.679	3	344146175.226	47.159	.000 ^b
	Residual	408665336.377	56	7297595.292		
	Total	1441103862.056	59			

- a. Dependent Variable: Return Y
- b. Predictors: (Constant), Compliance, PRICE_VARY_X3, VALUE_ASSET_X1

The F-test results in this study show an F value of 47.159, with a significance number of 0.000 at a significance level of 95% ($\alpha = 0.05$). The significance number of $0.000 < 0,05$, thus H_0 was rejected. This means that the variables Asset Value (X_1), Sharia Compliance (X_2), and Price Vary (X_3) had a significant influence on Return (Y).

A coefficient of determination (R^2) reflects how much variation of the dependent variable Y can be explained by the independent variable X, or in other words, how big X contributes to Y. The adjusted R^2 value can be seen in Table 4.6.

Table 4.6 Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.846 ^a	.716	.701	2701.40617

- a. Predictors: (Constant), Compliance, PRICE_VARIETY_X3, VALUE_ASSET_X1

Table 4.6 shows that the Adjusted R^2 value was 0.701. This can be interpreted that 70.1% of the diversity of Return (Y) can be explained by Asset Value (X_1),

Sharia Compliance (X_2), and Price Vary (X_3). The rest of the diversity of return is determined by other factors.

The regression coefficient obtained from the regression analysis using the SPSS program can be seen in Table 4.7.

Table 4.7 Regression Coefficient

Coefficients ^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-16958.756	14102.422		-1.203	.234
VALUE_ASET_X1	.309	.120	.429	2.570	.013
PRICE_VARIETY_X3	-.002	.001	-.166	-2.256	.028
Compliance	4097.296	1654.829	.410	2.476	.016

a. Dependent Variable: Return Y

$$Y = -16958.756 + 0.309 X_1 - 0.02X_2 + 4097.296 \text{ Compliance}$$

The above equation can be explained as follows:

1. the value of 0.309 of the variable X_1 is positive, so it can be said that the higher the value of assets (X_1), the higher the return received;
2. the value of -0.002 of the variable X_3 is negative so it can be said that the lower the price variety, the higher the return will be;
3. The value of 4097 of Compliance is positive, so it can be said that the higher the value of compliance, the higher the return received.

3. Discussion

According to the results of the hypothesis testing using F test, it can be explained that all three variables (Asset Value (X_1), Sharia Compliance (X_2), and Price Variety (X_3)) jointly influenced Return (Y) with an F count of 47.159 and a significance number of 0,000. Meanwhile, the coefficient of determination (R^2) was 0.701 or 70.1%.

$$Y = -16958.756 + 0.309 X_1 - 0.02X_2 + 4097.296 \text{ Compliance}$$

Based on the above equation, it was concluded that the factors influencing Return (Y) were Asset Value (X_1) with a regression coefficient of 0.309, Sharia Compliance (X_2) with a regression coefficient of -0.02 , and Price Variety with a regression coefficient of 4097.296. The coefficient of determination was 0.701 or 70.1%.

4. Conclusion

Based on the discussion above, it can be concluded that Asset Value, Sharia Compliance, and Price variety affect the return on *sukuk ijarah* and *sukuk wakalah*.

5. Research Limitation

The factors that influenced the return on investor capital in this study consisted of only three variables, namely assets, sharia compliance, and price variety, while there are still many other factors that influence the return on investor capital.

6. Suggestion & Recommendation

It is suggested that the next study should use other variables that can increase the rate of return on state *sukuk* as objects of research.

The recommendation proposed according to this research is that inputs for investors regarding the rate of return on investment in Islamic bonds or state *sukuk* should be provided. This can serve as an investor's consideration in making investment decisions.

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THE EFFECTS OF OWNERSHIP STRUCTURES AND SPECIFIC CHARACTERISTICS ON THE CAPITAL STRUCTURES OF IDX-LISTED BANKS

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Abstract

The present study observed the effects of ownership structures and specific characteristics on the capital structures of banks listed on the Indonesia Stock Exchange (IDX). The author found that ownership structures and bank-specific characteristics (e.g., profitability, size, and credit risk) did not have significant partial effect on the capital structures, while expense management did. This is consistent with a strand of previous studies including Haruman (2008), Yuke and Hadri (2005), Rista and Bambang (2011), Siringoringo (2012), and (Imas et al., 2015).

Keywords: *ownership structures, specific characteristics, capital structures*

INTRODUCTION

Taswan (2010) lays out banking control perspective to classify bank ownership in Indonesia, which includes concentrated ownership, government ownership, private domestic ownership, and foreign ownership. Large individual ownership indicates that bank ownership in Indonesia is concentrated into a number of owners. Managers, as a result, are simply subordinates to controller stakeholders. The major differences between government-controlled banks, domestic banks, mixed banks, and foreign banks lie in the capitals and legal forms (Siringoringo, 2012).

Capital structure policy deals with an optimal combination of using different sources of funds to finance an investment and a firm's overall operations to meet substantial financial goals and, in turn, to gain significant profits and values from the emerging market (Gitman, 2009).

In addition to bank ownership, bank-specific characteristics, or internal factors, are taken into consideration to examine the capital structure decisions of the banks listed on the IDX. Prominent bodies of literature have shed light on the

relationship among the three domains with a wide variety of research findings. In the present study, the author breaks down the variables of bank-specific characteristics into profitability, size, credit risk, and management expense.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

1. Ownership Structure

1.1. Agency Cost Theory

Jensen & Meckling (1976) established the relationship between ownership structures and capital structures in terms of the percentage of share ownership by insiders (stakeholders) and outsiders (shareholders), in addition to debt and equity, when it comes to the most important factors in capital structures. As insider ownership rises, managerial ownership serves to align the interests of outside shareholders and managers (who act as agents as well as principals), and agency cost will decline. Hence, agency cost will rise with a reduction in managerial ownership. Bathala et al. (1994) find the comparison regarding capital structure policy that the higher the insiders' proportions, the greater the desires to reduce the firm's cost of capital. In other words, firms no longer need to take on debts because the agency costs of debt will reduce as insiders own more shares.

Furthermore, in the presence of large-block shareholders who buy stocks with a large amount of institutional ownership, firms exercise more control and external monitoring, which, in turn, leads to agency cost-reducing mechanism. One might expect that debt policy and institutional ownership can be a substitution-monitoring effect mechanism. Bathala et al. (1994) explored this effect and found that institutional investors can encourage more effective monitoring services and mitigate the extent of opportunistic behaviors by managers. The monitoring of managerial activities may help reduce agency conflicts and become a substitute for debts.

Banking institutions involve a very complex set of agency relationship. Common examples of this relationship include the relationship between principals (shareholders) and agents (management), the relationship between bank and debtors, and the relationship between bank and regulators (Taswan, 2010).

1.2. Asymmetric Information Theory

Myers (1984) suggests that funding needs are based on a certain hierarchy in choosing how a firm funds its growth projects as to minimize the likelihood of information asymmetry. Basically, a firm will prioritize internal, when available,

over external financing. When external financing is required, a firm will prefer debt to equity owing to lower information costs resulting from debt issues. A firm will finally finance itself by issuing new equity shares as a last resort.

1.3. Types of Bank Ownerships in Indonesia

The ownership structure of commercial banks in Indonesia, according to Bank Indonesia, is categorized into 6 groups, i.e., Bank Persero (BUMN), Bank Umum Swasta Nasional Devisa (BUSN Devisa), Bank Swasta Nasional Non Devisa (BUSN Non Devisa), Bank Pembangunan Daerah (BPD), mixed banks, and foreign banks.

2. Bank-Specific Characteristics

2.1. Profitability

Profitability is the degree to which a bank is able to generate earnings (expressed as a percentage) over a specified time period compared to its underlying expenses and other related costs incurred during or subsequent to its efforts to generate earnings. The financial ratio that measures the percentage of profit a firm earns is calculated by ROA (Return on Assets), which compares returns on equity (net income) with total assets. This calculation allows bank management to utilize its financial resources to generate profits (Athanasoglou et al., 2005).

2.2. Size

Bank size also provides a description as to how a bank is able, upon expansion, to stay competitive in an over-saturated marketplace. There is a strong likelihood that a larger bank can perform its portfolio strategies across all lines of operation. As such, the size of a bank positively affects leverage ratio and tends to increase the level of debt financing (Darwanto, 2008).

2.3. Credit Risk

Credit risk, or default risk, refers to the risk that customers fail, are unable, or are unwilling to meet their commitments in terms of return of capital and payment of interest within a specified period of time (Dahlan Siamat, 1999). The magnitude of default risk can be indicated by the level of bad debt. A number of factors responsible for bad debt include the quality of credit appraisal, macroeconomic factor, and moral hazard, both debtors' and creditors'.

2.4. Management Expense

Management expense describes the total expense associated with doing business on a day-to-day basis, which includes operating costs and other relevant expenses incurred. The increase in management expenses proxied by the relative proportion between the ratio of operating costs to that of total assets indicates a linear relationship with bank leverage. This means bank leverage increases as high operating costs continue to rise (Darwanto, 2008).

3. Capital Structure

3.1 Modigliani-Müller (MM) Theory

MM argue that, based on the proposition with taxes, a greater proportion of debt/equity ratio benefits the value of a company owing to corporate tax shield. They propose that, in a perfect capital market with taxes, the interest payment that results from debt, in most cases, can be used to reduce the amount of taxable income and, thus, are tax-deductible interest. With the advantage of tax shield benefits, the levered company will enjoy a higher market value than the unlevered company. There are, however, a number of authorities who are not in favor of the so-called corporate tax shield. Such is criticized in terms of the capital market, which is perfectly competitive and frictionless, while in an imperfect capital market, costs associated with bankruptcy and agency problems and asymmetric information are very likely to occur, and an ample sum of debt can distress the company value, accordingly (Brigham, 2005 and Peirson, 2006).

3.2 Trade-Off Theory

Trade-off theory, similar to balancing theory, advocates the idea that a company can capitalize on an optimal capital structure by trading off the benefits and the costs of debt, as described by Peirson (2006: 394):

Trade-off theory proposes that companies have an optimal capital structure based on a trade-off between the benefits and costs of using debt.

3.3 Pecking Order Theory

In most cases, a firm will prefer debts, if external funding is required, to new equities or shares, given that the cost of bond issuance is cheaper than that of new shares. When new shares are issued, the price of old shares lowers, which, in turn, can be a bad signal for investors. Asymmetric information between managers (insiders) and shareholders (outsiders) may result in the decline of share prices. In

this sense, the managers are more aware of the prospects of the firm than the shareholders.

Funding Sources for Banks

Taswan (2010: 174) suggests that banks must pay close attention to the composition of funds, interest rates, and overhead costs to capitalize on cash flow opportunities by considering the following principles:

1. Cost of funds is minimized to the least possible level by setting up a certain composition.
2. Funds with low volatility and high stability are the bedrock of liquidity management.
3. The composition of funding sources holds the implementation of credit commitments and placement of other productive assets to the largest extent possible.

Hypotheses

Following the arguments above, the author tested potential explanation for the effect of ownership structures and bank-specific characteristics on capital structures through the following hypotheses:

Hypothesis 1: The ownership structures of banks significantly affect their capital structure.

Hypothesis 2: Bank-specific characteristics significantly affect their capital structure.

RESEARCH METHOD

Operational Variables

The following table presents the variables observed in the present study:

Table 1. Operational Variables

Variables	Indicators	Formula	Scale	Type of Data
Capital Structure (Y)	- Total Debt (Deposit, Subordinated Debt) - Equity	$DER = \frac{\text{Debt}}{\text{Equity}}$	Ratio	Secondary

Ownership Structure				
Government Ownership (X ₁)	Number of Shares	$\frac{\% \text{ Government Share}}{\% \text{ Total Share}}$	Ratio	Secondary
Domestic Ownership (X ₂)	Number of Shares	$\frac{\% \text{ Domestic Share}}{\% \text{ Total Share}}$	Ratio	Secondary
Mixed Ownership (X ₃)	Number of Shares	$\frac{\% \text{ Mixed Share}}{\% \text{ Total Share}}$	Ratio	Secondary
Foreign Ownership (X ₄)	Number of Shares	$\frac{\% \text{ Foreign Share}}{\% \text{ Total Share}}$	Ratio	Secondary
Bank-Specific Traits				
Profitability (X ₅)	- Net Income - Total Assets	$= \frac{\text{Net Income}}{\text{Total Assets}}$	Ratio	Secondary
Size (X ₆)	Total Assets	Size = Ln Assets	Ratio	Secondary
Credit Risk (X ₇)	- Amount of Bad Debts - Total Credit	$= \frac{\text{Amount of Bad Debts}}{\text{Total Credit}}$	Ratio	Secondary
Management Expense (X ₈)	- Total Costs - Total Assets	$= \frac{\text{Total Costs}}{\text{Total Assets}}$	Ratio	Secondary

Data Sources and Types

The present study relied on quantitative research, which includes secondary data. In secondary data analysis, the author analyzed the pre-existing data available from other sources and might have been used and published in previous research studies, e.g., the balance sheets and income statements of publicly traded banks from 2013 to 2016 and the proportions of bank stock ownerships. The population empirically selected for the study was the entire conventional commercial banks

listed on the IDX. Purposive sampling was applied based on the purpose of the study and the following characteristics of the population:

1. The conventional commercial banks operated from 2013 to 2016 and presented their financial statements during the same period.
2. The banks had periodically released and consolidated fully audited financial statements during the period.

Data Collection

The author gathered data to inform the research questions using library research, a disciplinary resource featuring a diverse array of scholarly journals, publications and the likes across the areas in need of investigation that highlight the subject of interest.

Data Analysis and Hypothesis Test

a. Data Analysis

In statistical modeling, multiple linear regression analysis enabled the author to assess the effect of more than one predictor variable on a criterion or response variable. The simple form of regression equation to assess the association between these two types of variables is defined by:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_8X_8 + \varepsilon$$

Where

Y	=	Capital Structure
$b_1, b_2, b_3, \dots, b_8$	=	Regression Coefficient $X_1, X_2, X_3, \dots, X_8$
X_1	=	Government Ownership Structure
X_2	=	Domestic Ownership Structure
X_3	=	Foreign Ownership Structure
X_4	=	Mixed Ownership Structure
X_5	=	Profitability
X_6	=	Size
X_7	=	Credit Risk
X_8	=	Management Expense
A	=	Constant
E	=	Residual

The calculation and interpretation of the correlation coefficient between the independent variables, e.g., ownership structures and bank-specific characteristics ($r_{X_1X_5}$, $r_{X_1X_6}$, $r_{X_1X_7}$, $r_{X_1X_8}$, $r_{X_2X_5}$, $r_{X_2X_6}$,..... $r_{X_4X_8}$), are given by the following formula:

$$r_{xixj} = \frac{n \sum_{i=1}^n X_{ih} X_{jh} - \sum_{i=1}^n X_{jh}}{\sqrt{\left[n \sum_{i=1}^n X_{ih}^2 - \left(\sum_{i=1}^n ih \right)^2 \right] \left[n \sum_{i=1}^n X_{jh}^2 - \left(\sum_{i=1}^n X_{jh} \right)^2 \right]}}$$

b. Hypothesis Test

The given model or equation considered a set of statistical inferences, both partially (individually) and simultaneously, across the variables with the testing criteria at a significance level of 5% ($\alpha = 0.05$).

Overall Test (F-Test)

The statistic outcome of the simultaneous association between independent and dependent variables is defined by the following hypothesis formula:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_8X_8 + \varepsilon$$

$$H_0: \rho_{xy_1} = \rho_{xy_2} = \dots = \rho_{xy_8} = 0$$

$$H_a: \text{at least one } \rho_{yxi} \neq 0 ; i = 1, 2, \dots, k$$

The F-test for the overall or simultaneous significance is as follows:

$$F = \frac{(n - k - 1) \sum_{i=1}^k \rho_{yxi} r_{yxi}}{k \left(1 - \sum_{i=1}^k \rho_{yxi} r_{yxi} \right)}$$

Source: Gujarati (2006)

The above statistical test follows Snedecor's F-distribution with degrees of freedom $v_1 = k$ and $v_2 = n-k-1$, where k = the number of independent variables.

The F-test recognizes the following criteria:

- If $F_{cal} \geq F_{table}$ with $\alpha = 0.05$, H_0 is rejected—there is a simultaneous effect of the independent variables on the dependent variable.

- If $F_{cal} \leq F_{table}$ with $\alpha = 0.05$, H_0 is accepted—there is no simultaneous effect of the independent variables on the dependent variable.

Individual Test (T-Test)

When the test of the overall hypothesis formulation rejects the null hypothesis (H_0), at least one path coefficient is not equal to zero ($\rho_{YX_i} \neq 0$). Under such circumstance, partial (individual) test is required to determine whether each independent variable, individually, is enough to create a significant relationship with the dependent variable. The hypothesis formula where partial path coefficient is assumed is defined by:

$H_0: \rho_{YX_i} = 0$

$H_a: \rho_{YX_i} \neq 0$, where $i = 1, 2, 3...k$

The statistical test is defined by: $t_i = \frac{\rho_{yxi}}{\sqrt{\frac{(1 - R^2_{YX_1...Xk})CR_{ij}}{n - k - 1}}}$

Source: Gujarati (2006)

The partial test between X variables (X_1 – X_8) and Y variable included a two-tailed significance, given that the present study did not hypothesize a specific directional correlation (i.e., positive and negative correlation) between two variables of interest. The criteria were as follows:

If $-t_{table} > |t_{cal}| > t_{table}$ ($\alpha, n-k-1$), H_0 is rejected—there is a significant partial effect of independent variable (X_1) on dependent variable (Y).

If $-t_{table} < |t_{cal}| < t_{table}$ ($\alpha, n-k-1$), H_0 is accepted—there is no significant partial effect of independent variable (X_1) on dependent variable (Y).

RESULTS AND DISCUSSION

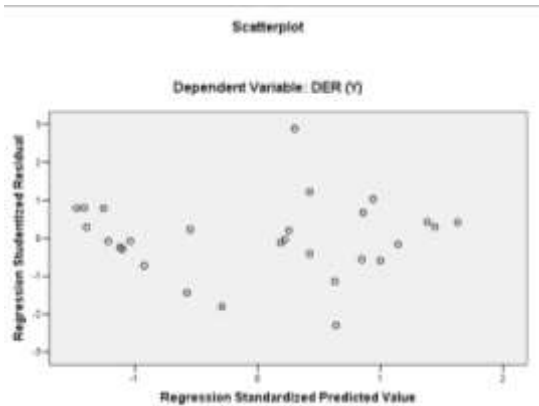
Multiple Linear Regression Analysis

Prior to the procedure of regression model, we need to tap into a set of assumptions regarding linear regression that, in Gauss-Markov’s term, fits into BLUE (Best Linear Unbiased Estimator) (Gujarati, 2011).

- Essentially, “best” is defined in a sense that regression line is the “best guess” at using a set of data to make a prediction. Regression line is necessary to express the pattern of relationship that relates two or more series of data. A line that fits the data well will be the one that minimizes the sum of errors. An error results from the observed value of a response variable that differs from

the value predicted by the regression line. An efficient estimator, in addition to the “best” property, is unbiased.

- b. Statistical inferences in linear regression focus on β with the assumption that the relationship between the predictor X and the response Y is linear.



$$\bar{X} = \frac{1}{n} \sum X = \frac{1}{n}(x_1 + x_2 + \dots + x_n)$$

On average, which is a linear estimator that expresses linear function that fits a predictive model to an observed data set of X values. OLS (Ordinary Least Square) estimates also minimize the squared residuals, thus creating linear estimates.

- c. An estimator is said to be unbiased if the estimator’s expected value of β is not different from the true parameter value of β ($E(\hat{\beta}) = \beta$).

Four principal assumptions, including normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test, were used to justify the linear regression models for the purpose of inferences or predictions.

4.1.1.1 The Effect of Government Ownership (X₁), Profitability (X₅), Size (X₆), Credit Risk (Non-Performing Loan) (X₇), and Management Expense (X₈) on Debt-to-Equity Ratio (Y)

a. Normality Test

The following figure shows a graphical method to decide whether the data came from a normal distribution.

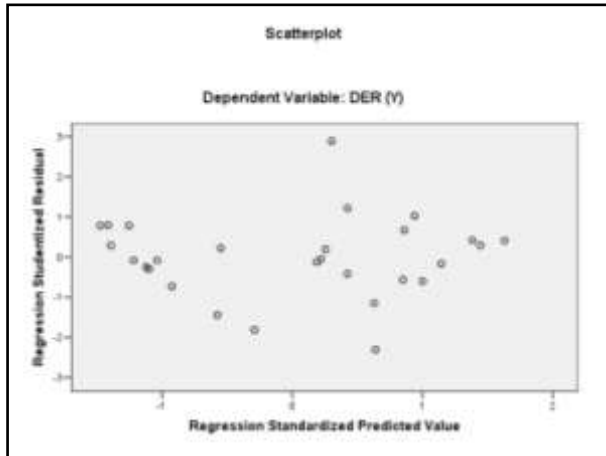


Figure 4.1 P-P Plot of Normality Test

The graphical assessment of normality above shows the points track closely to the diagonal line, indicating that the data set was well modeled by a normal distribution.

b. Heteroscedasticity Test

The following figure also uses a graph for the examination of heteroscedasticity.

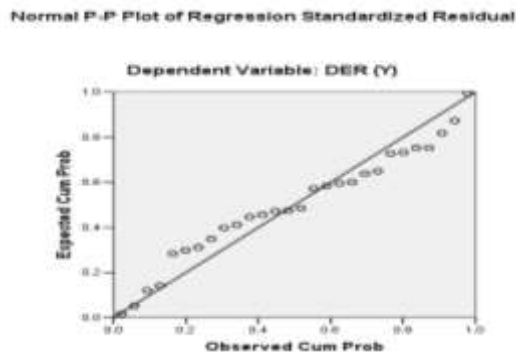


Figure 4.2 Scatterplot of Heteroscedasticity

The scatterplot graph presented in Figure 4.2 shows that there was no obvious patterns in distribution, and the plots spread above and below zero on Y axis, thus indicating the absence of heteroscedascity. In other words, the regression model conformed to the assumption of homoscedascity.

c. Multicollinearity Test

To indicate the extent to which multicollinearity was present, VIF was calculated for each predictor using SPSS with the following output:

Table 4.1 VIF Value of Multicollinearity Test

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Government Ownership (X_1)	.602	1.662
	Profitability (X_5)	.663	1.509
	Size (X_6)	.122	8.227
	Credit Risk (NPL) (X_7)	.221	4.521
	Management Expense (X_8)	.219	4.570

a. Dependent Variable: DER (Y)

The VIF value for each predictor was seen to be far less than 10, i.e., $X_1 = 1.662$, $X_5 = 1.509$, $X_6 = 8.227$, $X_7 = 4.521$, and $X_8 = 4.570$. Thus, multicollinearity was not present as two or more predictors included in the model were not significantly correlated so that the value of one could not linearly be predicted by that of the other with a substantial degree of accuracy.

d. Autocorrelation Test

Linear regression model was tested for autocorrelation. The resulting statistical value $d = 1.117$ in SPSS (14.0 for Windows).

Table 4.2 Zero-Order Autocorrelation Test

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.884 ^a	.782	.733	.86324	1.970

- a. Predictors: (Constant), Management Expense (X_8), Government Ownership (X_1), Profitability (X_5), Credit Risk (NPL) (X_7), Size (X_6)
- b. Dependent Variable: DER (Y)

The test statistic was $d = 1.970$. This value was computed and compared with the tabulated values of d_L and d_U in Durbin-Watson table. Critical values of d at $\alpha = 0.05$ for $k = 5$ and $n = 28$ were $d_L=1.05$ and $d_U = 1.84$. Given that the d value lied between the two critical values— d_U (1.84) and $4-d_U$ (2.15)—the model did not indicate positive autocorrelation.

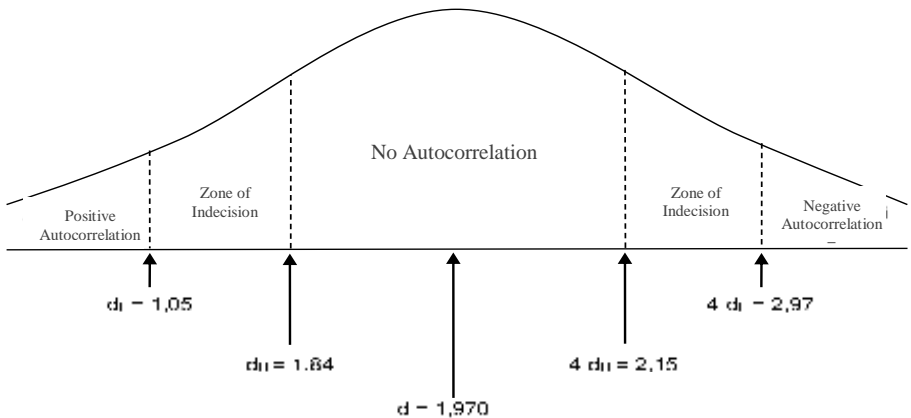


Figure 4.3 Zero-Order Autocorrelation Test

e. Analysis of Multiple Linear Regression Equation

After examining that the model assumptions were not violated, multiple linear regression analysis was run to measure the effect of Government Ownership (X_1), Profitability (X_5), Size (X_6), Credit Risk (X_7), and Management Expense (X_8) on DER (Y). The aim was to identify the relationship among the variables and use this relationship to make predictions about the dependent variable based on the observed values of the independent variable in a causal inference.

The multiple regression model is:

$$Y = \alpha + b_1X_1 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + e$$

Where

Y = DER

X_1 = Government Ownership

- X_5 = Profitability
 X_6 = Size
 X_7 = Credit Risk (NPL)
 X_8 = Management Expense
 α = Constant/ Intercept
 $b_{1,5,6,7,8}$ = Regression Coefficient
 e = Residual Variable

Based on SPSS, the calculation of multiple linear regression yielded the following output:

Table 4.4 The Output of Regression Coefficient

Coefficient^a

Model	Unstandard Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	31.125	10.044		3.099	.005
Government Ownership (X_1)	1.204	.770	.200	1.562	.133
Profitability (X_5)	9.210	9.735	.116	.946	.354
Size (X_6)	-1.564	.518	-.862	-3.020	.006
Credit Risk (NPL) (X_7)	-.349	.301	-.245	-1.157	.260
Management Expense (X_8)	55.740	10.020	1.184	5.563	.000

a. Dependent Variable: DER (Y)

Following the above output, the resulting constants and regression coefficients can be used in multiple linear regression analysis to build a regression equation:

$$Y = 31.125 + 1.204 X_1 + 9.210 X_5 - 1.564 X_6 - 0.349 X_7 + 55.740 X_8$$

The interpretations are as follows:

$\alpha = 31.125$ If Government Ownership (X_1), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) take on zero (0), DER (Y) ends up in 31.125 units.

$b_1 = 1.204$ If Government Ownership (X_1) increases by one unit, DER (Y) will increase by 1.204 units.

$b_5 = 9.210$ If Profitability (X_5) increases by one unit, and the other variables are held constant, DER (Y) will increase by 9.210 units.

$b_6 = -1.564$ If Size (X_6) increases by one unit, and the others are held constant, DER (Y) will decrease by 1.564 units.

- $b_7 = -0.349$ If Credit Risk (NPL) (X_7) increases by one unit, and the others are held constant, DER (Y) will decrease by 0.349 unit.
- $b_8 = 55.740$ If Management Expense (X_8) increases by one unit, and the others are held constant, DER (Y) will increase by 55.740 units.

f. Analysis of Coefficient of Correlation and Coefficient of Determination

The calculation and the estimation output of Pearson’s product-moment correlation coefficient are illustrated and discussed below:

Table 4.5 The Value of Product-Moment Correlation Coefficient

Model Summary[†]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.884 ^a	.782	.733	.86324	1.970

- a. Predictors: (Constant), Management Expense (X_8), Government Ownership (X_1), Profitability (X_5), Credit Risk (NPL) (X_7), Size (X_8)
- b. Dependent Variable: DER (Y)

The value of correlation coefficient (r) was 0.884, which was interpreted based on the following objective criteria:

Table 4.6 Correlation Coefficient and Its Interpretations

Confidence Interval	Relationship Degree
0.00–0.199	Very low
0.20–0.399	Low
0.40–0.599	Moderate
0.60–0.799	High
0.80–1.000	Very High

Source: Sugiyono (2002: 183)

The selection of the level of confidence for an interval can range in value from -1 to +1; the larger the value, the higher the relationship between variables. In Pearson’s correlation, a value of 0.884 indicates an almost perfect linear relationship between the free variables and the bound variable, simultaneously.

The value of r represents the percentage of variation that can be explained by the formula of determination coefficient:

$$\begin{aligned} DC &= R^2 \times 100\% \\ &= (0.884)^2 \times 100\% \\ &= 78.2\% \end{aligned}$$

The resulting coefficient of determination was 78.2%, indicating an almost perfect degree of linear correlation between the X variables and Y variable. As much as 78.2% of the variance in Y can be explained by the changes in Xs, simultaneously. The remaining 21.8% of the variation in Y is presumed to be due to random variability.

The percentage of partial effect can be obtained by multiplying the value of beta coefficient by that of zero-order coefficient.

Table 4.7 The Value of Beta Coefficient and Zero-Order Coefficient

Model		Standardized Coefficients	Correlations
		Beta	Zero-Order
1	Government Ownership (X_1)	.200	.532
	Profitability (X_5)	.116	.562
	Size (X_6)	-.862	.454
	Credit Risk (NPL) (X_7)	-.245	-.290
	Management Expense (X_8)	1.184	.786

a. Dependent Variable: DER (Y)

1. Variable $X_1 = 0.200 \times 0.532 = 0.106 = 10.6\%$
2. Variable $X_5 = 0.116 \times 0.562 = 0.065 = 6.5\%$
3. Variable $X_6 = -0.862 \times 0.454 = -0.391 = -39.1\%$
4. Variable $X_7 = -0.245 \times -0.290 = 0.071 = 7.1\%$
5. Variable $X_8 = 1.184 \times 0.786 = 0.931 = 93.1\%$

g. Simultaneous Hypothesis Test (F-Test)

Below is a set of simultaneously-tested hypotheses:

$H_0 \rightarrow b_{YX_i} = 0$ There is no significant effect of Government Ownership (X_1), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) on DER (Y) at the same time.

$H_a \rightarrow b_{YX_i} \neq 0$ There is no significant effect of Government Ownership (X_1), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) on DER (Y) at the same time.

Significance level $\alpha = 5\%$.

The statistical test is F-test.

The F statistical value using SPSS is presented below:

Table 4.8 Estimation Result of Simultaneous Hypothesis Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.847	5	11.769	15.794	.000 ^b
	Residual	16.394	22	.745		
	Total	75.241	27			

- a. Predictors: (Constant), Management Expense (X_8), Government Ownership (X_1), Profitability (X_5), Credit Risk (NPL) (X_7), Size (X_6)
- b. Dependent Variable: DER (Y)

In the Anova output, the author used the F_{cal} , which was 15.794, and compared it to the probability distribution of F-value. For $\alpha = 5\%$, db_1 (degree of freedom) = $k = 5$, and $db_2 = n - k - 1 = 28 - 5 - 1 = 23$, the resulting F_{table} was 2.640.

The simultaneous hypothesis testing was based on these underlying criteria:
 Reject H_0 in favor of H_1 if $F_{cal} \geq F_{table}$; or
 Accept H_0 and reject H_1 if, otherwise, $F_{cal} < F_{table}$.

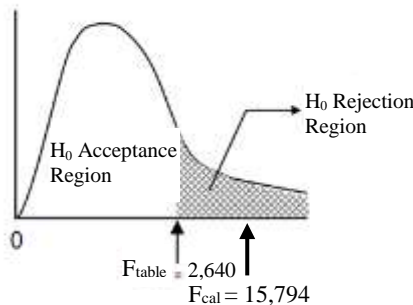


Figure 4.5 Curve of Simultaneous Hypothesis Test

The F_{cal} , as it appears in the curve, was greater than the F_{table} ($15.794 > 2.640$). H_0 was, therefore, accepted, indicating that the group of X variables (Government

Ownership, Profitability, Size, Credit Risk, and Management Expense) was jointly significant in DER (Y).

h. Partial Hypothesis Test (T-Test)

A T-test, unlike F-test, determines whether a single variable is significant.

- 1) $H_0 \rightarrow b_{YX1} = 0$ Government Ownership (X_1) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX1} \neq 0$ Government Ownership (X_1) significantly affects DER (Y).
- 2) $H_0 \rightarrow b_{YX5} = 0$ Profitability (X_5) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX5} \neq 0$ Profitability (X_5) significantly affects DER (Y).
- 3) $H_0 \rightarrow b_{YX6} = 0$ Size (X_6) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX6} \neq 0$ Size (X_6) significantly affects DER (Y).
- 4) $H_0 \rightarrow b_{YX7} = 0$ Credit Risk (NPL) (X_7) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX7} \neq 0$ Credit Risk (NPL) (X_7) significantly affects DER (Y).
- 5) $H_0 \rightarrow b_{YX8} = 0$ Management Expense (X_8) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX8} \neq 0$ Management Expense (X_8) significantly affects DER (Y).

The significance level $\alpha = 5\%$.

The statistical test was T-test.

The T statistical value using SPSS is presented below:

Table 4.9 Estimation Result of Partial Hypothesis Test

Coefficient^a

Model	Unstandard Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	31.125	10.044		3.099	.005
Government Ownership (X_1)	1.204	.770	.200	1.562	.133
Profitability (X_5)	9.210	9.735	.116	.946	.354
Size (X_6)	-1.564	.518	-.862	-3.020	.006
Credit Risk (NPL) (X_7)	-.349	.301	-.245	-1.157	.260
Management Expense (X_8)	55.740	10.020	1.184	5.563	.000

a. Dependent Variable: DER (Y)

In the Anova output, t_{cal} of $X_1 = 1.562$, $X_5 = 0.946$, $X_6 = -3.020$, $X_7 = -1.157$, and $X_8 = 5.563$. These values were compared to the probability distribution of the

t value. For $\alpha = 5\%$, df (degree of freedom) = $n - k - 1 = 28 - 5 - 1 = 23$ in a two-tailed test, the resulting t_{table} was 2.069 and -2.069.

The partial hypothesis testing was based on these underlying criteria:

Reject H_0 in favor of H_1 if $-t_{table} \geq t_{cal} \geq t_{table}$; or

Accept H_0 and reject H_1 if $-t_{table} < t_{cal} < t_{table}$.

Unlike the previous finding that the multiple X variables had a significant effect on Y variable, testing only one variable at a time enabled the author to analyze the experiment to see how much a single change affected the result; Government Ownership (X_1) did not significantly affect DER (Y) ($1.562 < 2.069$); Profitability (X_5) did not significantly affect DER (Y) ($0.946 < 2.069$); Size (X_6) significantly affected DER (Y) ($-3.020 < -2.069$); Credit Risk (NPL) (X_7) did not significantly affect DER (Y) ($-1.157 > -2.069$); and Management Expense (X_8) significantly affected DER (Y) ($5.563 > 2.069$).

4.1.1.2 The Effect of Domestic Ownership (X_2), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) on DER (Y)

a. Normality Test

A graphical display is used to summarize whether the data follow a normal distribution.

Normal P-P Plot of Regression Standardized Residual

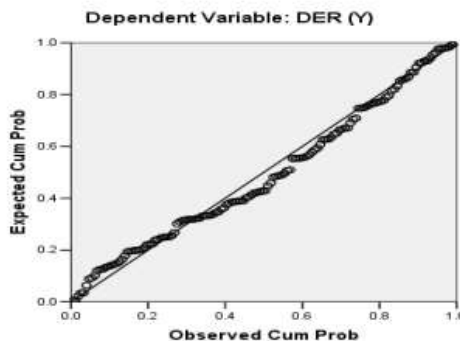


Figure 4.6 P-P Plot of Normality Test

The distribution of data points followed the normal reference line along the diagonal. This data distribution looks fairly normal, accordingly.

b. Heteroscedasticity Test

Figure 4.7 tests a regression model for heteroscedasticity by a graphical examination of the residuals.

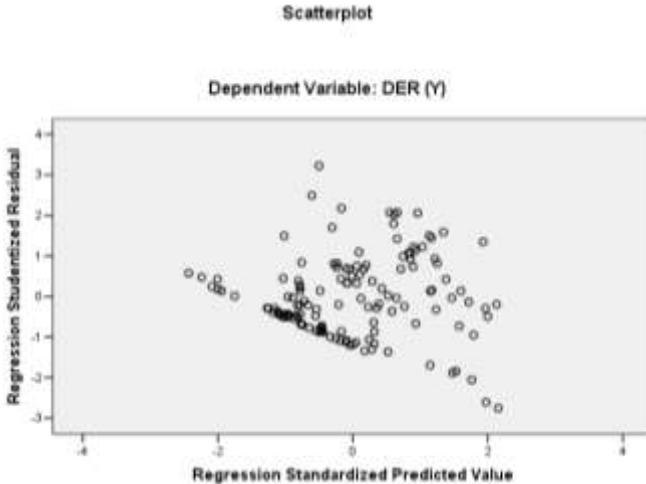


Figure 4.7 Scatterplot of Heteroscedasticity

The residual scatterplot provides a visual examination of heteroscedasticity assumption and exhibits a random displacement of points with no clustering or systematic patterns. The points were also seen to be distributed above and below 0 (zero coordinate) on Y axis, indicating no signs of heteroscedasticity. This distribution satisfied the homoscedasticity assumption.

c. Multicollinearity Test

To indicate the extent to which multicollinearity was present, VIF was calculated for each predictor using SPSS with the following output:

Table 4.10 VIF Value of Multicollinearity Test

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Domestic Ownership (X ₂)	.853	1.172
	Profitability (X ₅)	.925	1.081
	Size (X ₆)	.852	1.174
	Credit Risk (NPL) (X ₇)	.944	1.059
	Management Expense (X ₈)	.909	1.100

a. Dependent Variable: DER (Y)

The VIF value for each predictor, as it appears in the table, was far below 10, i.e., X₂ = 1.172, X₅ = 1.081, X₆ = 1.174, X₇ = 1.059, and X₈ = 1.100. This suggests no multicollinearity was present as these predictors included in the model were not significantly correlated and, thus, were independent predictors.

d. Autocorrelation Test

Linear regression model was tested for autocorrelation and yielded statistical value d = 0.784 in SPSS (14.0 for Windows).

Table 4.11 Zero-Order Autocorrelation Test

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.574 ^a	.330	.305	2.30618	.732

- a. Predictors: (Constant), Management Expense (X₈), Size (X₆), Credit Risk (NPL) (X₇), Profitability (X₅), Domestic Ownership (X₂)
- b. Dependent Variable: DER (Y)

The test statistic was d = 0.732. This value was computed and compared with the tabulated values of d_L and d_U in Durbin-Watson table. At α = 0.05, the d value was no greater than d_L (1.66). This indicates that the model was positively autocorrelated.

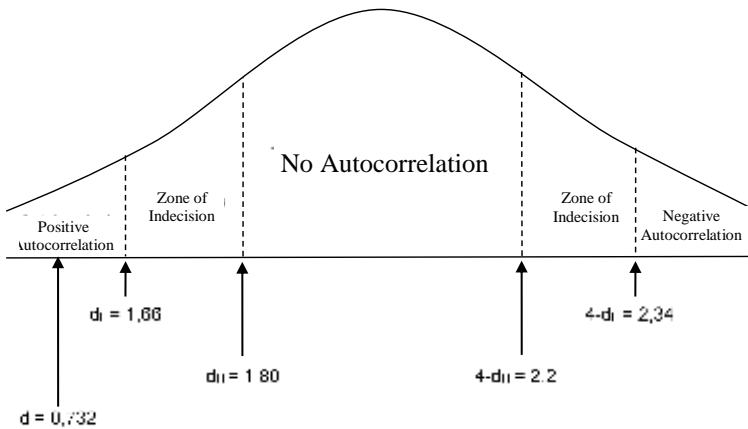


Figure 4.8 Zero-Order Autocorrelation Test

One of the approaches to dealing with an estimation in an autocorrelated linear model is transformation of variables using the estimate of ρ (rho) based on the d value in Durbin-Watson statistic (Gujarati, N. Damodar, *Essentials of Econometrics, Second Edition*, 1998: 394).

Subsequent to the variable transformation (one-time transformation), the transformed samples were retested for autocorrelation using SPSS (13.0 for Windows) with the following output:

Table 4.12 Last-Order Autocorrelation Test

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.410 ^a	.168	.137	1.56189	1.881

- Predictors: (Constant), Management Expense (X_8), Size (X_6), Credit Risk (NPL) (X_7), Profitability (X_5), Domestic Ownership (X_2)
- Dependent Variable: DER (Y)

The test statistic was $d = 1.881$. This value was computed and compared with the tabulated values of d_L and d_U in Durbin-Watson table. The critical values of d at $\alpha = 0.05$ for $k = 5$ and $n = 140$ were $d_L = 1.66$ and $d_U = 1.80$. Given that d value

lied between the two critical values— d_u (1.80) and $4-d_u$ (2.2)—the model was no longer autocorrelated.

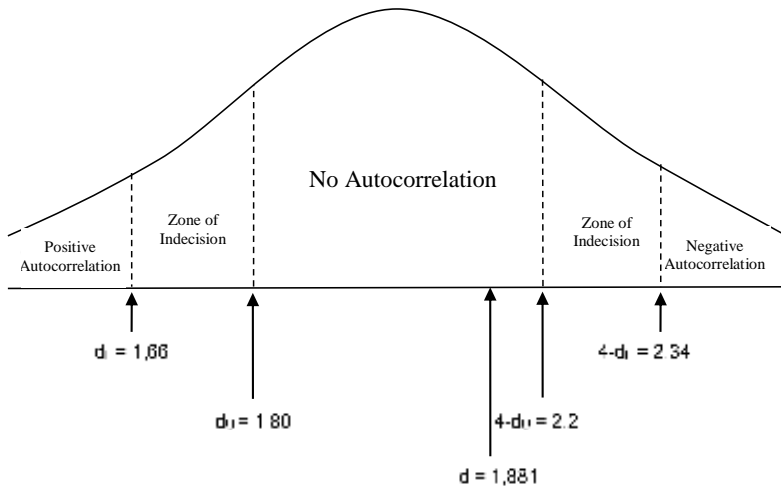


Figure 4.9 Last-Order Autocorrelation Test

e. Analysis of Multiple Linear Regression Equation

After all of the assumptions were checked, multiple linear regression analysis was run to examine the effect of the multiple X variables—Domestic Ownership (X_2), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) on Y variable—DER. This identifies a formula to make a prediction about the dependent variable based on the observed values of the independent variables in a causal relationship, i.e.:

$$Y = \alpha + b_2X_2 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + e$$

Where:

- Y = DER
- X_2 = Domestic Ownership
- X_5 = Profitability
- X_6 = Size
- X_7 = Credit Risk (NPL)
- X_8 = Management Expense
- α = Constant/ Intercept
- $B_{2,5,6,7,8}$ = Regression Coefficient
- e = Residual Variable

Table 4.13 presents the output of the calculation of multiple linear regression using SPSS statistics.

Table 4.13 The Output of Regression Coefficient

Coefficient^a

Model	Unstandard Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.544	.311		1.778	.078
Domestic Ownership (X ₂)	3.485	1.033	.328	3.372	.001
Profitability (X ₅)	.030	.069	.037	.431	.667
Size (X ₆)	1.124	.986	.109	1.140	.256
Credit Risk (NPL) (X ₇)	1.444	1.385	.085	1.043	.299
Management Expense (X ₈)	.812	1.624	.044	.500	.618

a. Dependent Variable: DER (Y)

The resulting constant and regression coefficient can be used to formulate a linear regression equation:

$$Y = 0.554 + 3.485 X_2 + 0.030 X_5 + 1.124 X_6 + 1.444 X_7 + 0.812 X_8$$

The equation was interpreted as follows:

- $\alpha = 0.554$ If Domestic Ownership (X₂), Profitability (X₅), Size (X₆), Credit Risk (NPL) (X₇), and Management Expense (X₈) take on zero, DER (Y) will end up in 0.554 unit.
- $b_2 = 3.485$ If Domestic Ownership (X₂) increases by one unit, and the others are held constant, DER (Y) will increase by 3.485 units.
- $b_5 = 0.030$ If Profitability (X₅) increases by one unit, and the others are held constant, DER (Y) will increase by 0.030 unit.
- $b_6 = 1.124$ If Size (X₆) increases by one unit, and the others are held constant, DER (Y) will increase by 1.124 units.
- $b_7 = 1.444$ If Credit Risk (NPL) (X₇) increases by one unit, and the others are held constant, DER (Y) will increase by 1.444 units.
- $b_8 = 0.812$ If Management Expense (X₈) increases by one unit, and the others are held constant, DER (Y) will increase by 0.812 unit.

f. Analysis of Coefficient of Correlation and Coefficient of Determination

Table 4.14 presents the output of coefficient of correlation estimation using SPSS statistics.

Table 4.14 The Value of Product-Moment Correlation Coefficient

Model Summary¹

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.410 ^a	.168	.137	1.56189	1.881

- a. Predictors: (Constant), Management Expense (X₈), Size (X₆), Credit Risk (NPL) (X₇), Profitability (X₅), Domestic Ownership (X₂)
- b. Dependent Variable: DER (Y)

The resulting coefficient of correlation (r) was 0.410, which was interpreted based on the following objective criteria:

Table 4.15 Correlation Coefficient and Its Interpretation

Confidence Interval	Correlation Degree
0.00–0.199	Very Low
0.20–0.399	Low
0.40–0.599	Moderate
0.60–0799	High
0.80–1.000	Very High

Source: Sugiyono (2002: 183)

The Pearson $r = 0.410$ indicates only a moderate simultaneous correlation between the free variables and the bound variable.

More specifically, the resulting r value describes the variation percentage in Y explained by X_s in a determination coefficient formula:

$$\begin{aligned}
 DC &= R^2 \times 100\% \\
 &= (0.410)^2 \times 100\% \\
 &= 16.8\%
 \end{aligned}$$

The resulting coefficient of determination was 16.8%, indicating a moderate degree of linear correlation between the X_s and Y . In other words, 16.8% of the variance in Y can be explained by the changes in X_s , simultaneously. The remaining 83.2% of the variation in Y is presumed to be due to random variability, not to the regression of X on Y .

The coefficient can represent the percentage of partial effect by multiplying the value of beta coefficient by that of zero-order coefficient.

Table 4.16 The Value of Beta Coefficient and Zero-Order Coefficient^a

Model		Standardized Coefficients	Correlations
		Beta	Zero-Order
1	Domestic Ownership (X ₂)	.328	.385
	Profitability (X ₅)	.037	.033
	Size (X ₆)	.109	.278
	Credit Risk (NPL) (X ₇)	.085	.044
	Management Expense (X ₈)	.044	.146

a. Dependent Variable: DER (Y)

1. Variable X₂ = $0.328 \times 0.385 = 0.126 = 12.6\%$
2. Variable X₅ = $0.037 \times 0.033 = 0.001 = 0.1\%$
3. Variable X₆ = $0.109 \times 0.278 = 0.030 = 3.0\%$
4. Variable X₇ = $0.085 \times 0.044 = 0.004 = 0.4\%$
5. Variable X₈ = $0.044 \times 0.146 = 0.006 = 0.6\%$

g. Simultaneous Hypothesis Test (F-Test)

Below is a set of simultaneously tested hypotheses.

H₀ → $b_{YX_i} = 0$ There is no significant effect of Domestic Ownership (X₂), Profitability (X₅), Size (X₆), Credit Risk (NPL) (X₇), and Management Expense (X₈) on DER (Y).

H_a → $b_{YX_i} \neq 0$ There is a significant effect of Domestic Ownership (X₂), Profitability (X₅), Size (X₆), Credit Risk (NPL) (X₇), and Management Expense (X₈) on DER (Y).

The significance level $\alpha = 5\%$.

The statistical test was F-Test.

The F statistical value using SPSS is presented below:

Table 4.17 Estimation Result of Simultaneous Hypothesis Test

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.031	5	13.206	5.413	.000 ^a
	Residual	326.892	134	2.439		
	Total	392.923	139			

- a. Predictors: (Constant), Management Expense (X_8), Size (X_6), Credit Risk (NPL) (X_7), Profitability (X_5), Domestic Ownership (X_2)
- b. Dependent Variable: DER (Y)

In the Anova output, the resulting F_{cal} was 5.413, which was compared to the probability distribution of F-value. For $\alpha = 5\%$, db_1 (degree of freedom) = $k = 5$, and $db_2 = n - k - 1 = 140 - 5 - 1 = 134$, the resulting F_{table} was 2.282.

The simultaneous test met these underlying criteria:

Reject H_0 in favor of H_1 if $F_{cal} \geq F_{table}$; or

Accept H_0 and, hence, reject H_1 if $F_{cal} < F_{table}$.

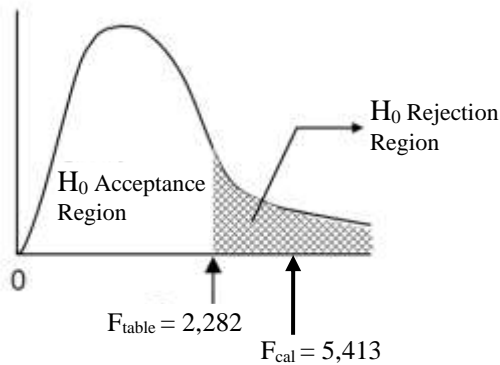


Figure 4.10 Curve of Simultaneous Hypothesis Test

The F_{cal} , as it appears in the curve, was greater than the F_{table} ($5.413 > 2.282$). H_0 was, therefore, accepted, indicating that the group of X_s (Domestic Ownership, Profitability, Size, Credit Risk, and Management Expense) were jointly significant in DER (Y).

h. Partial Hypothesis Test (T-Test)

T-test assessed a single regression coefficient at a time based on the hypotheses:

- 1) $H_0 \rightarrow b_{YX_2} = 0$ Domestic Ownership (X_2) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX_2} \neq 0$ Domestic Ownership (X_2) significantly affects DER (Y).
- 2) $H_0 \rightarrow b_{YX_5} = 0$ Profitability (X_5) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX_5} \neq 0$ Profitability (X_5) significantly affects DER (Y).

- 3) $H_0 \rightarrow b_{YX6} = 0$ Size (X_6) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX6} \neq 0$ Size (X_6) significantly affects DER (Y).
- 4) $H_0 \rightarrow b_{YX7} = 0$ Credit Risk (NPL) (X_7) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX7} \neq 0$ Credit Risk (NPL) (X_7) significantly affects DER (Y).
- 5) $H_0 \rightarrow b_{YX8} = 0$ Management Expense (X_8) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX8} \neq 0$ Management Expense (X_8) significantly affects DER (Y).

The significance level $\alpha = 5\%$.

The statistical test was T-test.

The T statistical value using SPSS is presented below:

Table 4.18 Estimation Result of Partial Hypothesis Test

Coefficient^a

Model	Unstandard Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.544	.311		1.778	.078
Domestic Ownership (X_2)	3.485	1.033	.328	3.372	.001
Profitability (X_5)	.030	.069	.037	.431	.667
Size (X_6)	1.124	.986	.109	1.140	.256
Credit Risk (NPL) (X_7)	1.444	1.385	.085	1.043	.299
Management Expense (X_8)	.812	1.624	.044	.500	.618

a. Dependent Variable: DER (Y)

In the Anova output, t_{cal} of $X_2 = 3.372$, $X_5 = 0.431$, $X_6 = 1.140$, $X_7 = 1.043$, and $X_8 = 0.500$. These values were compared to the probability distribution of the t value. For $\alpha = 5\%$, df (degree of freedom) = $n - k - 1 = 140 - 5 - 1 = 134$ in a two-tailed test, the resulting t_{table} were 1.978 and -1.978.

The partial test met these underlying criteria:

Reject H_0 in favor of H_1 if $-t_{table} \geq t_{cal} \geq t_{table}$; or

Accept H_0 and, hence, reject H_1 if $-t_{table} < t_{cal} < t_{table}$.

Testing one variable at a time helped pinpoint which changes of X_s had an effect on Y based on those criteria with the following results; Domestic Ownership (X_2) significantly affected DER (Y) ($3.372 > 1.978$); Profitability (X_5) did not

significantly affect DER (Y) ($0.431 < 1.978$); Size (X_6) did not significantly affect DER (Y) ($1.140 < 1.978$); Credit Risk (NPL) (X_7) did not significantly affect DER (Y) ($1.043 < 1.978$); and Management Expense (X_8) did not significantly affect DER (Y) ($0.500 < 1.978$).

4.1.1.3 The Effect of Mixed Ownership (X_3), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) on DER (Y)

a. Normality Test

Figure 4.12 presents a graphical method to compute the likelihood that the data came from a normal distribution.

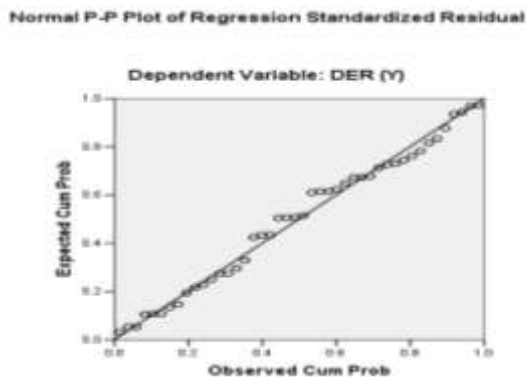


Figure 4.12 P-P Plot of Normality Test

A plot of points that lied approximately on a straight line or scattered around the reference (regional) line indicates a normally-distributed set of data.

b. Heteroscedasticity Test

The nature of heteroscedasticity was examined using a graphical method below:

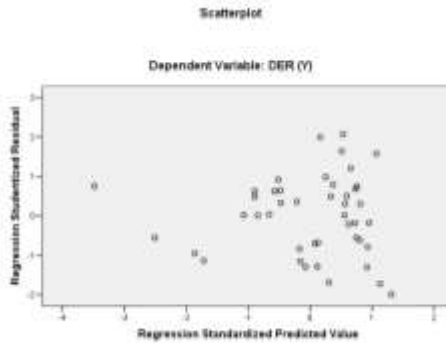


Figure 4.13 Scatterplot of Heteroscedasticity

The scatterplot exhibited no established patterns, and the data points lied above and below zero coordinate on Y axis. This indicates no heteroscedasticity of residuals, thus yielding homoscedastic data.

c. Multicollinearity Test

The following output indicates the VIF value for each free variable using SPSS statistics:

Table 4.19 VIF Value of Multicollinearity Test

Coefficients^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Mixed Ownership (X_3)	.945	1.058
	Profitability (X_5)	.299	3.347
	Size (X_6)	.748	1.337
	Credit Risk (NPL) (X_7)	.728	1.374
	Management Expense (X_8)	.220	4.536

a. Dependent Variable: DER (Y)

The resulting VIF value for each free variable went below 10, i.e., $X_3 = 1.058$, $X_5 = 3.347$, $X_6 = 1.377$, $X_7 = 1.374$, and $X_8 = 4.536$. A VIF below 10 did not indicate high correlation among these free variables in the regression model, representing a linear combination of the independent variables.

d. Autocorrelation Test

The linear regression model was tested for autocorrelation that yielded statistical value $d = 0.999$ in SPSS (14.0 for Windows).

Table 4.20 Zero-Order Autocorrelation Test

Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.626 ^a	.392	.312	1.73261	1.279

- a. Predictors: (Constant), Management Expense (X₈), Mixed Ownership (X₃), Credit Risk (NPL) (X₇), Size (X₆), Profitability (X₅)
- b. Dependent Variable: DER (Y)

The test statistic was $d = 1.279$. This value was computed and compared with the tabulated values of d_L and d_U in Durbin-Watson table. The critical values at $\alpha = 0.05$ for $k = 5$ and $n = 44$ were $d_L = 1.29$ and $d_U = 1.78$. Given that the d value did not exceed d_L (1.29), the model was assumed to be positively autocorrelated.

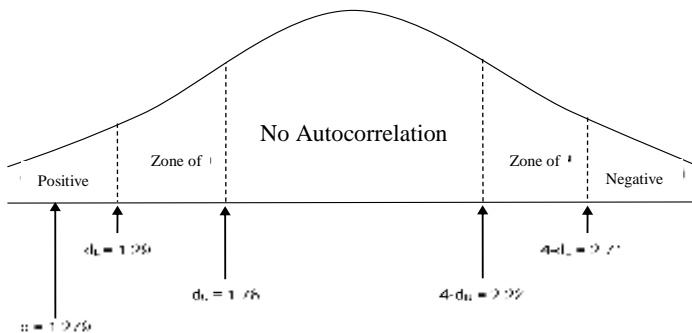


Figure 4.14 Zero-Order Autocorrelation Test

When autocorrelation was problematic, the predictor variables were transformed (one time) using the estimate of ρ (rho) based on the d value in Durbin-Watson statistic (Gujarati, N. Damodar, *Essentials of Econometrics, Second Edition*, 1998: 394).

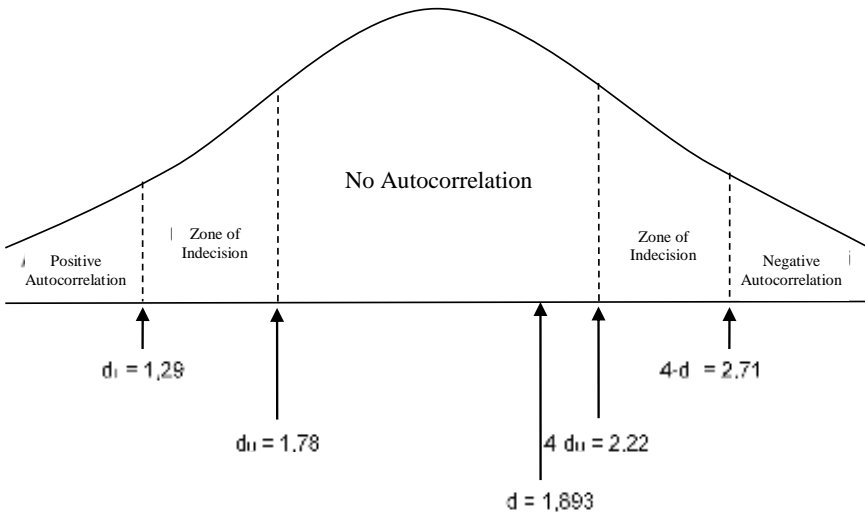
Following the one-time variable transformation, autocorrelation test was rerun using SPSS (13.0 for Windows).

Table 4.21 Last-Order Autocorrelation Test**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.604 ^a	.365	.281	1.56770	1.893

- Predictors: (Constant), Management Expense (X_8), Mixed Ownership (X_3), Credit Risk (NPL) (X_7), Size (X_6), Profitability (X_5)
- Dependent Variable: DER (Y)

The test statistic was $d = 1.893$. This value was computed and compared with the tabulated values of d_L and d_U in Durbin-Watson table. Critical values of d at $\alpha = 0.05$ for $k = 5$ and $n = 44$ were $d_L = 1.29$ and $d_U = 1.78$. Given that d value lied in the range of the two critical values— d_u (1.78) and $4 - d_u$ (2.22)—the model was no longer autocorrelated.

**Figure 4.15 Last-Order Autocorrelation Test****e. Analysis of Multiple Linear Regression Equation**

Multiple Linear Regression was aimed to model the causal relationship between the group of X_s —Mixed Ownership (X_3), Profitability (X_5), Size (X_6),

Credit Risk (NPL) (X_7), and Management Expense (X_8)—and Y (DER) by fitting a linear equation to the observed data, i.e.:

$$Y = \alpha + b_3X_3 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + e$$

Where

Y = DER

X_3 = Mixed Ownership

X_5 = Profitability

X_6 = Size

X_7 = Credit Risk (NPL)

X_8 = Management Expenses

α = Constant/ Intercept

$B_{3,5,6,7,8}$ = Regression Coefficient

e = Residual Variable

Table 4.22 presents the output of multiple linear regression calculation using SPSS statistics.

Table 4.22 The Output of Regression Coefficient

Coefficient^a

Model	Unstandard Coefficients		Standard Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.778	1.438		.541	.592
Mixed Ownership (X_3)	.203	3.337	.009	.061	.952
Profitability (X_5)	.819	.567	.338	1.446	.156
Size (X_6)	-13.783	6.478	-.362	-2.128	.040
Credit Risk (NPL) (X_7)	.661	.793	.124	.834	.410
Management Expense (X_8)	1.048	.327	.740	3.207	.003

a. Dependent Variable: DER (Y)

The resulting constants and regression coefficients can be used to formulate a linear regression equation:

$$Y = 0.778 + 0.203 X_3 + 0.819 X_5 - 13.783 X_6 + 0.661 X_7 + 1.048 X_8$$

The equation is interpreted as follows:

$\alpha = 0.778$ If Mixed Ownership (X_3), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) take on zero (0), DER (Y) will end up in 0.778 unit.

- $b_3 = 0.203$ If Mixed Ownership (X_3) increases by one unit, and the others are held constant, DER (Y) will increase by 0.203 unit.
- $b_5 = 0.819$ If Profitability (X_5) increases by one unit, and the others are held constant, DER (Y) will increase by 0.819 unit.
- $b_6 = -13.783$ If Size (X_6) increases by one unit, and the others are held constant, DER (Y) will decrease by 13.783 units.
- $b_7 = 0.661$ If Credit Risk (NPL) (X_7) increases by one unit, and the others are held constant, DER (Y) will increase by 0.661 unit.
- $b_8 = 1.048$ If Management Expense (X_8) increases by one unit, and the others are held constant, DER (Y) will increase by 1.048 units.

f. Analysis of Coefficient and Correlation and Coefficient of Determination

Table 4.23 presents the output of correlation coefficient estimation using SPSS statistics.

Table 4.23 The Value of Product-Moment Correlation Coefficient

Model Summary¹

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.604 ^a	.365	.281	1.56770	1.893

- Predictors: (Constant), Management Expense (X_8), Mixed Ownership (X_3), Credit Risk (NPL) (X_7), Size (X_6), Profitability (X_5)
- Dependent Variable: DER (Y)

The resulting value of correlation coefficient (r) was 0.604, which was interpreted based on the following objective criteria:

Table 4.24 Correlation Coefficient and Its Interpretation

Confidence Interval	Correlation Degree
0.00–0.199	Very Low
0.20–0.399	Low
0.40–0.599	Moderate
0.60–0.799	High
0.80–1.000	Very High

Source: Sugiyono (2002: 183)

Pearson $r = 0.604$ suggests a high linear simultaneous correlation between the free variables and the bound variable.

The resulting r value corresponds to the percentage of the variation that measures how well the variation of X_s explains that of Y defined in the determination coefficient formula below:

$$\begin{aligned} CD &= R^2 \times 100\% \\ &= (0.604)^2 \times 100\% \\ &= 36.5\% \end{aligned}$$

The resulting value of coefficient of determination of 36.5% implies that 36.5% of the variance in Y can be simultaneously explained by the changes in X_s . The remaining 63.5% of the variation in Y is presumed to be subject to random variability, not to the regression of X on Y .

The percentage of partial effect resulting from the multiplication of the value of beta coefficient by that of zero-order coefficient is shown in Table 4.25.

Table 4.25 Value of Beta Coefficient and Zero-Order Coefficient

Coefficient^a

Model	Standardized Coefficients	Correlations
	Beta	Zero-Order
1 Mixed Ownership (X_3)	.009	.250
Profitability (X_5)	.338	-.108
Size (X_6)	-.362	-.221
Credit Risk (NPL) (X_7)	.124	.227
Management Expense (X_8)	.740	.393

a. Dependent Variable: DER (Y)

1. Variable $X_3 = 0.009 \times 0.250 = 0.002 = 0.2\%$
2. Variable $X_5 = 0.338 \times -0.108 = -0.037 = -3.7\%$
3. Variable $X_6 = -0.362 \times -0.221 = 0.080 = 8.0\%$
4. Variable $X_7 = 0.124 \times 0.227 = 0.028 = 2.8\%$
5. Variable $X_8 = 0.740 \times 0.393 = 0.291 = 29.1\%$

g. Simultaneous Hypothesis Test (F-Test)

Below is a set of simultaneously-tested hypotheses:

$H_0 \rightarrow b_{YX_i} = 0$ There is no significant effect of Mixed Ownership (X_3), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) on DER (Y).

$H_a \rightarrow b_{YX_i} \neq 0$ There is a significant effect of Mixed Ownership (X_3), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) on DER (Y).

The significance level $\alpha = 5\%$.

The statistical test was F-test.

The F statistical value using SPSS is presented below:

Table 4.26 Estimation Result of Simultaneous Hypothesis Test

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.589	5	10.718	4.361	.003 ^a
	Residual	93.392	38	2.458		
	Total	146.980	43			

- Predictors: (Constant), Management Expense (X_8), Mixed Ownership (X_3), Credit Risk (NPL) (X_7), Size (X_6), Profitability (X_5)
- Dependent Variable: DER (Y)

In the Anova output, the resulting F_{cal} was 4.361, which was compared to the probability distribution of F-value. At $\alpha = 5\%$, db_1 (degree of freedom) = $k = 5$, and $db_2 = n - k - 1 = 44 - 5 - 1 = 38$, the resulting F_{table} is 2.463.

The simultaneous test met these underlying criteria:

Reject H_0 in favor of H_1 if $F_{cal} \geq F_{table}$; or

Accept H_0 and, hence, reject H_1 if $F_{cal} < F_{table}$.

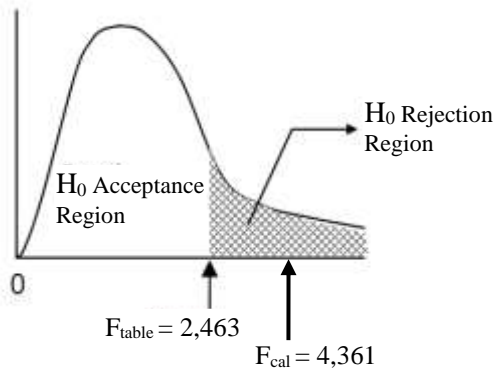


Figure 4.16
Curve of Simultaneous Hypothesis Test

The F_{cal} , as it appears in the curve, was greater than the F_{table} ($4.361 > 2.463$). H_0 was therefore accepted, indicating that the group of Xs (Mixed Ownership, Profitability, Size, Credit Risk, and Management Expenses) were jointly significant in DER (Y).

h. Partial Hypothesis Test (T-Test)

T-test examined the significance of a single regression coefficient at a time.

- 1) $H_0 \rightarrow b_{YX3} = 0$ Mixed Ownership (X_3) does not significantly affect DER (Y);
 $H_1 \rightarrow b_{YX3} \neq 0$ Mixed Ownership (X_3) significantly affects DER (Y).
- 2) $H_0 \rightarrow b_{YX5} = 0$ Profitability (X_5) does not significantly affect DER (Y);
 $H_1 \rightarrow b_{YX5} \neq 0$ Profitability (X_5) significantly affects DER (Y).
- 3) $H_0 \rightarrow b_{YX6} = 0$ Size (X_6) does not significantly affect (Y);
 $H_1 \rightarrow b_{YX6} \neq 0$ Size (X_6) significantly affects DER (Y).
- 4) $H_0 \rightarrow b_{YX7} = 0$ Credit Risk (NPL) (X_7) does not significantly affect DER (Y);
 $H_1 \rightarrow b_{YX7} \neq 0$ Credit Risk (NPL) (X_7) significantly affects DER (Y).
- 5) $H_0 \rightarrow b_{YX8} = 0$ Management Expense (X_8) does not significantly affect DER (Y);
 $H_1 \rightarrow b_{YX8} \neq 0$ Management Expense (X_8) significantly affects DER (Y).

The significance level $\alpha = 5\%$.

The statistical test is T-test.

The t statistical value using SPSS is presented below:

Table 4.27
Estimation Result of Partial Hypothesis Test

Coefficient^a

Model	Unstandard Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.778	1.438		.541	.592
Mixed Ownership (X ₃)	.203	3.337	.009	.061	.952
Profitability (X ₅)	.819	.567	.338	1.446	.156
Size (X ₆)	-13.783	6.478	-.362	-2.128	.040
Credit Risk (NPL) (X ₇)	.661	.793	.124	.834	.410
Management Expense (X ₈)	1.048	.327	.740	3.207	.003

a. Dependent Variable: DER (Y)

In the anova output, the resulting t_{cal} of $X_3 = 0.061$, $X_5 = 1.446$, $X_6 = -2.128$, $X_7 = 0.834$, and $X_8 = 3.207$. These values were compared to the probability distribution of the T-value. At $\alpha = 5\%$, db (degree of freedom) = $n - k - 1 = 44 - 5 - 1 = 38$ in a two-tailed test, the resulting t_{table} was 2.024 and -2.024.

The partial test met these underlying criteria:

Reject H_0 in favor of H_1 if $-t_{table} \geq t_{cal} \geq t_{table}$; or

Accept H_0 and, hence, reject H_1 if $-t_{table} < t_{cal} < t_{table}$.

The partial t-test assessed the effect, as Xs were not highly correlated, which X actually created on Y based on those criteria with the following results; Mixed Ownership (X₃) did not significantly affect DER (Y) ($0.061 < 2.024$); Profitability (X₅) did not significantly affect DER (Y) ($1.446 < 2.024$), Size (X₆) did not significantly affect DER (Y) ($-2.128 > -2.024$); Credit Risk (NPL) (X₇) did not significantly affect DER (Y) ($0.834 < 2.024$); and Management Expense (X₈) significantly affected DER (Y) ($3.207 > 2.024$).

4.1.1.4 The Effect of Foreign Ownership (X₄), Profitability (X₅), Size (X₆), Credit Risk (NPL) (X₇), and Management Expenses (X₈) on DER (Y)

a. Normality Test

The graphical method below provides the examination of the data normality.

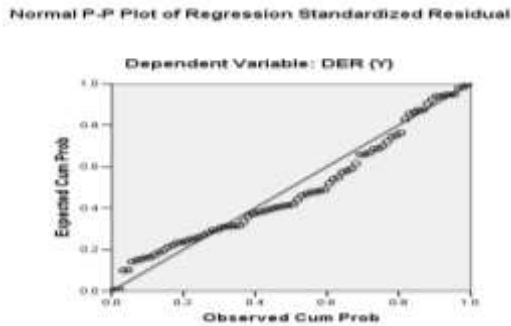


Figure 4.17 P-P Plot of Normality Test

The points on the plot aligned with the diagonal line, and, thus, the data set conformed to the normal distribution.

b. Heteroscedasticity Test

Figure 4.18 presents a graphical procedure to check for the potential heteroscedasticity in the application of regression analysis.

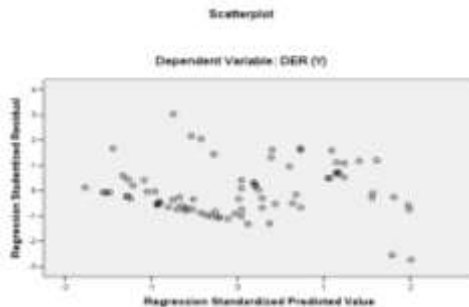


Figure 4.18 Scatterplot of Heteroscedasticity

The data points strayed from the line in a non-obvious fashion, with the distribution of points scattering randomly around zero on Y axis, thus no signs of heteroscedasticity. The homoscedasticity assumption of the regression model was therefore thoroughly verified for the predictive purposes.

c. Multicollinearity Test

Multicollinearity was tested by examining the VIF output for each free variable using SPSS statistics.

Table 4.28 VIF Value of Multicollinearity Test

Coefficients ^a

Model		Collinearity Statistics	
		Tolerance	VIF
1	Foreign Ownership (X_4)	.762	1.312
	Profitability (X_5)	.869	1.151
	Size (X_6)	.875	1.143
	Credit Risk (NPL) (X_7)	.827	1.209
	Management Expense (X_8)	.904	1.106

a. Dependent Variable: DER (Y)

The resulting VIF for each free variable stayed below 10, i.e., $X_4 = 1.312$, $X_5 = 1.151$, $X_6 = 1.143$, $X_7 = 1.209$, and $X_8 = 1.106$. A VIF below 10 indicates insignificant correlation among these variables, thus making them independent of each other.

d. Autocorrelation Test

The regression model was tested for autocorrelation in Durbin-Watson test. The resulting d statistic value was 1.615 in SPSS (14.0 for Windows).

Table 4.29 Zero-Order Autocorrelation

Model Summary [†]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.591 ^a	.349	.305	2.54306	.735

- a. Predictors: (Constant), Management Expense (X_8), Size (X_6), Profitability (X_5), Credit Risk (NPL) (X_7), Foreign Ownership (X_4)
- b. Dependent Variable: DER (Y)

The table results in d value of 0.735. This value was compared with d_L and d_U in Durbin-Watson table. At $\alpha = 0.05$ for $k = 5$ and $n = 80$, the resulting $d_L = 1.51$ and $d_U = 1.77$. This model runs into positive autocorrelation.

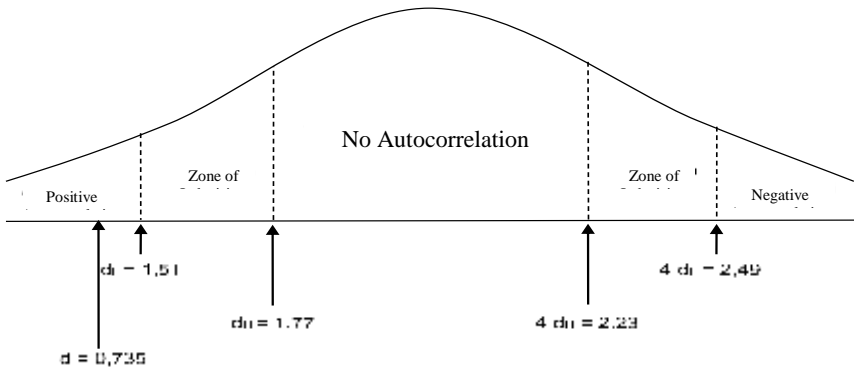


Figure 4.19 Zero-Order Autocorrelation

To remove autocorrelation, the variables were transformed (two times) using the estimate of ρ (rho) based on the d statistic in Durbin-Watson test (Gujarati, N. Damodar, *Essentials of Econometrics, Second Edition*, 1998: 394).

Following the two-time transformation, autocorrelation test was rerun using SPSS (13.0 for Windows) with the following output:

Table 4.30 Last-Order Autocorrelation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.475 ^a	.226	.174	1.71175	1.861

- Predictors: (Constant), Management Expense (X_8), Profitability (X_5), Foreign Ownership (X_4), Credit Risk (NPL) (X_7), Size (X_6)
- Dependent Variable: DER (Y)

The d value in the SPSS output was 1.861, which was compared to d_L and d_U in Durbin-Watson table. At $\alpha = 0.05$, for $k = 5$ and $n = 80$, the resulting $d_L = 1.51$ and $d_U = 1.77$. Given that the d value stood in the range of d_U (1.77) and $4 - d_U$ (2.23), the model no longer remained autocorrelated.

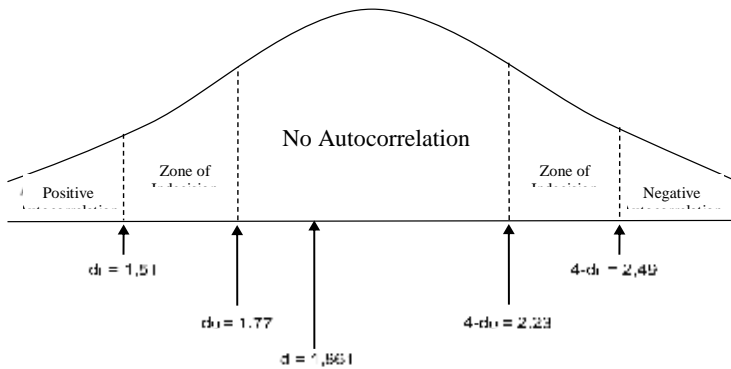


Figure 4.20 Last-Order Autocorrelation

e. Analysis of Multiple Linear Regression Equation

Multiple linear regression require the relationship between the independent and dependent variables to be linear. The four principal assumptions of linearity have been verified where the regression model did not violate each of the aforementioned assumptions. These assumptions justify the use of multiple linear regression model for purposes of inference or prediction about the effect of Foreign Ownership (X_4), Profitability (X_5), Size (X_6), Credit Risk (NPL) (X_7), and Management Expense (X_8) on DER (Y).

The model for multiple linear regression is defined by:

$$Y = \alpha + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + e$$

Where

Y = DER

X_4 = Foreign Ownership

X_5 = Profitability

X_6 = Size

X_7 = Credit Risk (NPL)

X_8 = Management Expense

α = Constant/ Intercept

$b_{4,5,6,7,8}$ = Regression Coefficient

e = Residual Variable

The calculation output of multiple linear regression in SPSS statistics is presented below:

Table 4.31 The Output of Regression Coefficient

Coefficient^a

Model	Unstandard Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.096	.479		2.287	.025
Foreign Ownership (X ₄)	-.075	.772	-.010	-.097	.923
Profitability (X ₅)	2.139	.605	.495	3.533	.001
Size (X ₆)	-.477	1.330	-.050	-.359	.721
Credit Risk (NPL) (X ₇)	1.867	2.569	.079	.727	.470
Management Expense (X ₈)	-3.204	6.381	-.055	-.502	.617

a. Dependent Variable: DER (Y)

The resulting constants and regression coefficients can be used to formulate a linear regression equation:

$$Y = 1.096 - 0.075 X_4 + 2.139 X_5 - 0.477 X_6 + 1.867 X_7 - 3.204 X_8$$

The equation is interpreted as follows:

- $\alpha = 1.096$ If Foreign Ownership (X₄), Profitability (X₅), Size (X₆), Credit Risk (NPL) (X₇), and Management Expense (X₈) take on zero (0), DER (Y) will end up in 1.096 units.
- $b_4 = -0.075$ If Foreign Ownership (X₄) increases by one unit, and the others are held constant, DER (Y) will decrease by 0.075 unit.
- $b_5 = 2.139$ If Profitability (X₅) increases by one unit, and the others are held constant, DER (Y) will increase by 2.139 units.
- $b_6 = -0.477$ If Size (X₆) increases by one unit, and the others are held constant, DER (Y) will decrease by 0.477 unit.
- $b_7 = 1.867$ If Credit Risk (NPL) (X₇) increases by one unit, and the others are held constant, DER (Y) will increase by 1.867 units.
- $b_8 = -3.204$ If Management Expense (X₈) increases by one unit, and the others are held constant, DER (Y) will decrease by 3.204 units.

f. Analysis of Coefficient of Correlation and Coefficient of Determination

Table 4.32 presents the output of correlation coefficient estimation using SPSS statistics.

Table 4.32 The Value of Product-Moment Correlation Coefficient**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.475 ^a	.226	.174	1.71175	1.861

- a. Predictors: (Constant), Management Expense (X₈), Profitability (X₅), Foreign Ownership (X₄), Credit Risk (NPL) (X₇), Size (X₆)
- b. Dependent Variable: DER (Y)

The resulting value of correlation coefficient (r) was 0.475, which was interpreted based on the following objective criteria:

**Table 4.33
Correlation Coefficient and Its Interpretation**

Confidence Interval	Correlation Degree
0.00–0.199	Very Low
0.20–0.399	Low
0.40–0.599	Moderate
0.60–0.799	High
0.80–1.000	Very High

Source: Sugiyono (2002: 183)

Pearson $r = 0.475$ indicates only a moderate simultaneous correlation between the free variables and the bound variable.

The r value shows the variation percentage in Y which is explained by all of the X s altogether in a determination coefficient formula:

$$\begin{aligned}
 CD &= R^2 \times 100\% \\
 &= (0.475)^2 \times 100\% \\
 &= 22.6\%
 \end{aligned}$$

The resulting value of coefficient of determination coefficient of 22.6% indicates that 22.6% of the variation in Y can be simultaneously explained by the changes in X s. The remaining 77.4% of the variation in Y accounts for random variability, not for the regression of X on Y .

The coefficient corresponded with the percentage of partial effect by multiplying the value of beta coefficient by that of zero-order coefficient.

Table 4.34
Value of Beta Coefficient and Zero-Order Coefficient

Coefficient^a

Model		Standardized Coefficients	Correlations
		Beta	Zero-Order
1	Foreign Ownership (X ₄)	-.010	-.056
	Profitability (X ₅)	.495	.461
	Size (X ₆)	-.050	.290
	Credit Risk (NPL) (X ₇)	.079	.085
	Management Expense (X ₈)	-.055	-.091

a. Dependent Variable: DER (Y)

1. Variable X₃ = $-0.010 \times -0.056 = 0.001 = 0.1\%$
2. Variable X₅ = $0.495 \times 0.461 = 0.228 = 28.8\%$
3. Variable X₆ = $-0.050 \times 0.290 = -0.015 = -1.5\%$
4. Variable X₇ = $0.079 \times 0.085 = 0.007 = 0.7\%$
5. Variable X₈ = $-0.055 \times -0.091 = 0.005 = 0.5\%$

g. Simultaneous Hypothesis Test (F-Test)

The simultaneously-tested hypotheses are as follows:

H₀ → $b_{YX_i} = 0$ There is no significant effect of Foreign Ownership (X₄), Profitability (X₅), Size (X₆), Credit Risk (NPL) (X₇), and Management Expense (X₈) on DER (Y).

H_a → $b_{YX_i} \neq 0$ There is a significant effect of Foreign Ownership (X₄), Profitability (X₅), Size (X₆), Credit Risk (NPL) (X₇), and Management Expense (X₈) on DER (Y).

The significance level $\alpha = 5\%$.

The statistical test was F-test.

The F statistical value using SPSS is presented below:

Table 4.35 Estimation Result of Simultaneous Hypothesis Test**ANOVA^b**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.307	5	12.661	4.321	.002 ^a
	Residual	216.826	74	2.930		
	Total	280.133	79			

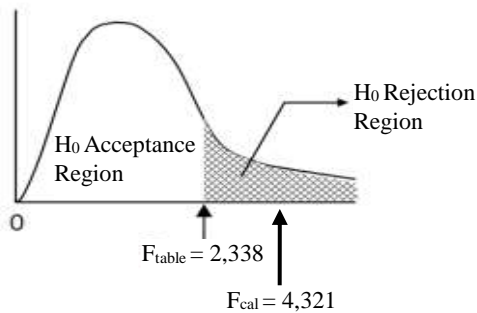
- a. Predictors: (Constant), Management Expense (X_8), Profitability (X_5), Foreign Ownership (X_4), Credit Risk (NPL) (X_7), Size (X_6)
- b. Dependent Variable: DER (Y)

In the Anova output, the resulting F_{cal} was 4.321, which was compared to the probability distribution of F-value. At $\alpha = 5\%$, db_1 (degree of freedom) = $k = 5$, and $db_2 = n - k - 1 = 80 - 5 - 1 = 74$, the resulting F_{table} is 2.338.

The simultaneous test met these underlying criteria:

Reject H_0 in favor of H_1 if $F_{cal} \geq F_{table}$; or

Accept H_0 and, hence, reject H_1 if $F_{cal} < F_{table}$.

**Figure 4.21 Curve of Simultaneous Hypothesis Test**

The F_{cal} , as it appears in the curve, was greater than the F_{table} ($4.321 > 2.338$). H_0 was therefore accepted, indicating that the group of X_s (Foreign Ownership, Profitability, Size, Credit Risk, and Management Expenses) were jointly significant in DER (Y).

h. Partial Hypothesis Test (T-Test)

T-test assessed a single regression coefficient at a time based on the hypotheses:

- 1) $H_0 \rightarrow b_{YX4} = 0$ Foreign Ownership (X_4) does not significantly affect DER (Y);
 $H_1 \rightarrow b_{YX4} \neq 0$ Foreign Ownership (X_4) significantly affects DER (Y).
- 2) $H_0 \rightarrow b_{YX5} = 0$ Profitability (X_5) does not significantly affect DER (Y);
 $H_1 \rightarrow b_{YX5} \neq 0$ Profitability (X_5) significantly affects DER (Y).
- 3) $H_0 \rightarrow b_{YX6} = 0$ Size (X_6) does not significantly affect DER (Y);
 $H_1 \rightarrow b_{YX6} \neq 0$ Size (X_6) significantly affects DER (Y).
- 4) $H_0 \rightarrow b_{YX7} = 0$ Credit Risk (NPL) (X_7) does not significantly affect DER (Y).
 $H_1 \rightarrow b_{YX7} \neq 0$ Credit Risk (NPL) (X_7) significantly affects DER (Y).
- 5) $H_0 \rightarrow b_{YX8} = 0$ Management Expense (X_8) does not significantly affect DER (Y);
 $H_1 \rightarrow b_{YX8} \neq 0$ Management Expense (X_8) significantly affects DER (Y).

The significance level $\alpha = 5\%$.

The statistical test was T-test.

The T statistical value using SPSS is presented below:

Table 4.36 Estimation Result of Partial Hypothesis Test

Coefficient^a

Model	Unstandard Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.096	.479		2.287	.025
Foreign Ownership (X_4)	-.075	.772	-.010	-.097	.923
Profitability (X_5)	2.139	.605	.495	3.533	.001
Size (X_6)	-.477	1.330	-.050	-.359	.721
Credit Risk (NPL) (X_7)	1.867	2.569	.079	.727	.470
Management Expense (X_8)	-3.204	6.381	-.055	-.502	.617

a. Dependent Variable: DER (Y)

In the Anova output, t_{cal} of $X_4 = -0.097$, $X_5 = 3.533$, $X_6 = -0.359$, $X_7 = 0.727$, and $X_8 = -0.502$. These values were compared to the probability distribution of the T-value. At $\alpha = 5\%$, db (degree of freedom) = $n - k - 1 = 80 - 5 - 1 = 74$ in a two-tailed test, the resulting t_{table} was 1.993 and -1.993 .

The partial test met these underlying criteria:

Reject H_0 in favor of H_1 if $-t_{table} \geq t_{cal} \geq t_{table}$; or

Accept H_0 and, hence, reject H_1 if $-t_{table} < t_{cal} < t_{table}$.

The criteria predict Y on the basis of Xs with the following outcomes; Foreign Ownership (X_4) did not significantly affect DER (Y) ($-0.097 > -1.993$); Profitability (X_5) significantly affected DER (Y) ($3.533 > 1.993$); Size (X_6) did not significantly affect DER (Y) ($-0.359 > -1.993$); Credit Risk (NPL) (X_7) did not significantly affect DER (Y) ($0.727 < 1.993$); and Management Expense (X_8) significantly affected DER (Y) ($-0.502 > -1.993$).

The result of hypothesis test confirms the insignificant partial effect of ownership structure on capital structure. The proportion of firm ownership did not measure the extent of debt instrument that allowed financial latitude. Prior data reflect that firms take on debt financing more heavily over the years, and the ownership structure is bound to remain stable (Haruman, 2008) and (Imas et al., 2015).

Profitability had a weak effect on capital structure decision. Krishnan (1996), Badhuri (2002), Moh'd (1998), Majumdar (1999) (in Yuke and Hadri, 2005) and Imas et al. (2015) point out that a firm which earns higher return on equity when its needs for external funding or debt decreases to fund new investment is able to earn at a higher rate than it pays for borrowed funds. A high-performance firm is expected to use its internal funds (retained earnings) and, thus, relies less on debt financing in its capital structure.

The partial effect of firm size on capital structure also shows insignificant result. Rista and Bambang (2011), Heruman (2008), and Imas et al. (2015) assert that a managerial decision that affects the financial condition of a firm is not greatly influenced by how much of total assets have been allocated among current and fixed assets.

Consistent with Haruman (2008) and Imas et al. (2015), the present study found measuring and managing credit risk of central importance for financial institutions and lacking significant effect on the dynamic capital structure adjustment, notwithstanding. Exposure to credit risk across different firms varied

widely. However, the tendency to take on a great deal of high-yield debt remained high.

Management expense, as opposed to other previous variables, had a major potential effect on the factors that influence the decisions concerning the capital structure. In accordance with Siringoringo (2012) and Imas et al. (2015), the present study found that relatively high management expenses commonly indicated an aggressive total cost associated with the increase in assets, thus exceeding the marginal costs of imposing a leverage ratio increase.

CONCLUSION

By considering the data of the entire conventional banks listed on the IDX from 2013 to 2016, this present study empirically examined the effects of ownership structures and bank-specific characteristics on the capital structures. It has provided an in-depth understanding of firms' capital structure needs in a qualitative manner, highlighting the importance of evaluating how the capital structures help finance their assets, day-to-day operations, and future growth. To this end, multiple linear regression was performed to gather and represent the predictive results concerning the correlation of capital structures and a number of variables. All hypotheses were confirmed that they were insignificant, except one. The findings were statistically insignificant with respect to the relationship between ownership structure and capital structure; the relationship between profitability and capital structure; the relationship between firm size and capital structure; and the relationship between credit risk and capital structure. When it comes to management expenses, however, it can be ascertained that there was a significant relationship in the framework for evaluating the dynamic capital structure adjustment. These relationships could potentially affect a firm's financial decision and its adjustment and how firms were relying more heavily on the banking sector for their debt financing needs.

SUGGESTION

This study contributes to the extant literature on capital structures in banking institutions and fills the gap in the wide strand of literature by providing empirical evidence of the relationship between ownership structures and bank-specific characteristics in terms of how the observed firms manage their capital structures. There are different subjects of analysis in order to extrapolate key themes and

results that help predict future trends, shed light on previously hidden disciplinary pathways that can be applied to practice, and provide means for understanding relevant pivotal research issues based on research approaches appropriate for the development of knowledge in a given study. In addition, the author suggests these specific aspects be observed in more depth:

1. other variables useful for the description of the sample clusters to emphasize large-scale and representative sets of data, and to provide a solid foundation for future research efforts;
2. the policy of each bank ownership to address key elements incorporated into the internal loan guidelines, standards, and procedures in all geographic areas where the banks are active.

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THE EFFECT OF REMUNERATION ON EMPLOYEE PERFORMANCE IN UNIVERSITAS TERBUKA

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Abstract

Remuneration is a reward provided by a company to its employees for their achievements in order to achieve its goals. This implies that its existence in a company organization cannot be ignored because it will be directly related to the achievement of the company's goals. This research studied how much the impact remuneration had on employee performance at Universitas Terbuka (UT). The purpose of this research was to find out whether remuneration has an influence on employee performance. The data analysis method employed was the descriptive analysis method, and the analytical tool used was the Structural Equation Model (SEM). This research is expected to provide information about the impact of remuneration on employee performance at Universitas Terbuka.

Keywords: remuneration, performance, employee, SEM

BACKGROUND

The strength of an organization or company lies in the human resources that are in it. If human resources are properly considered by respecting their talents and expertise, and if their abilities are developed and utilized appropriately, an organization will be able to move dynamically and grow rapidly. One way to value employee talent and expertise is by providing remuneration. It is expected that remuneration can motivate UT employees to improve their performance.

According to Hasibuan (2012: 118), remuneration is all income in the form of money or goods directly or indirectly received by employees in return for services provided for their company. Fair remuneration is something that is received by employees as a payment for the contributions that have been made to the organization (Surya, 2009). According to Paul Mackay (1997), remuneration is a reward given to employees for their performance in the form of money (salaries, bonuses, commissions, and so on).

The aim of the state apparatus remuneration system is to improve the welfare of state apparatus, improve public services, and create good, clean governance through the practice of community service. Therefore, the Government's appreciation of the performance of the state apparatus is emphasized on the principle of justice by considering its suitability with workload and responsibility (Winurini, 2014). The remuneration structure of the state apparatus is divided into the following 5 components (Fahrani, 2011):

1. Salary: The salary component is not known as the term basic salary. Salary is determined by considering the role of each employee in carrying out government and development tasks.
2. Living expenses: Living costs consist of food, housing, and transport allowances.
3. Performance allowances (incentives): Performance allowances are a new component in the structure of remuneration for civil servants. Performance benefits consist of performance allowances (benefits paid based on achievement).
4. Holiday allowance: Holiday allowance is given once a year, the amount of which is equal to the amount of salary.
5. Compensation: Compensation benefits are given to employees who work in remote areas, conflict-prone areas, and areas with uncomfortable, dangerous, or high-risk environments.

METHOD

Research population and sample the population in this study was all employees at UT Center. Meanwhile, the study sample consisted of 198 respondents.

1. Sampling Method

The sampling method used in this study was the stratified random sampling method, by which a sample is taken by paying attention to the strata (levels) in the population. Stratified data are the data that are previously grouped into certain levels. In this case, the determination of the sample was based on the position of the respondents. Because the population element had heterogeneous characteristics, and heterogeneity has a significant meaning in the achievement of research objectives, this sampling method was deemed suitable.

2. Data Analysis Method

Based on the existing research design, this study used the SEM (Structure Equation Modeling). SEM is a statistical technique that is able to analyze latent variables, indicator variables, and measurement errors directly. SEM allows the analysis of the relationship between latent variables and indicator variables, the relationship between one latent variable and another latent variable, and the magnitude of measurement errors. In addition to unidirectional causal relations, SEM also allows us to analyze two-way relationships that often appear in social sciences. Indicator variables in this study used data taken from the sample of UT employees. Because the indicators in this study were reflective indicators or effect indicators, which are indicators that are considered to be influenced by latent constructs or indicators that are considered to reflect or represent latent constructs, this study used the LISREL program.

RESULTS

1. Characteristics of Respondents

Respondents in this study were 198 UT employees. We looked into their characteristics based on sex and years of service.

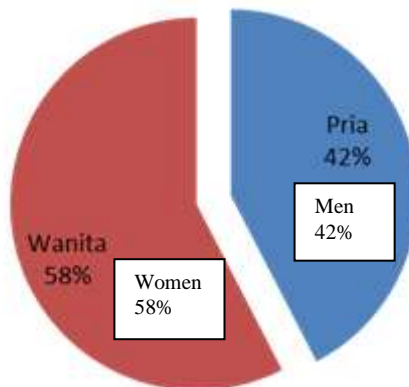


Figure 1. Characteristics of Respondents Based on Sex

Based on Table 1, we can see that the majority of respondents were women (144 respondents or 58%), with male respondents making up 42% of all respondents.

Table 1
Characteristics of Respondents Based on Working Period

Years of Service	Frequency	%
0–5 years	19	9.0%
5–10 years	21	11.0%
11–15 years	36	18.0%
>15 years	122	62.0%
Total	198	100.0%

Based on Table 1, the majority of respondents had worked for more than 15 years (122 respondents or 62%), followed by respondents with a working period of 11–15 years (36 respondents or 18%). As many as 21 respondents (11%) had worked for 5–10 years, and the remaining 19 respondents (9%) had a working period of 0–5 years.

2. Model test results

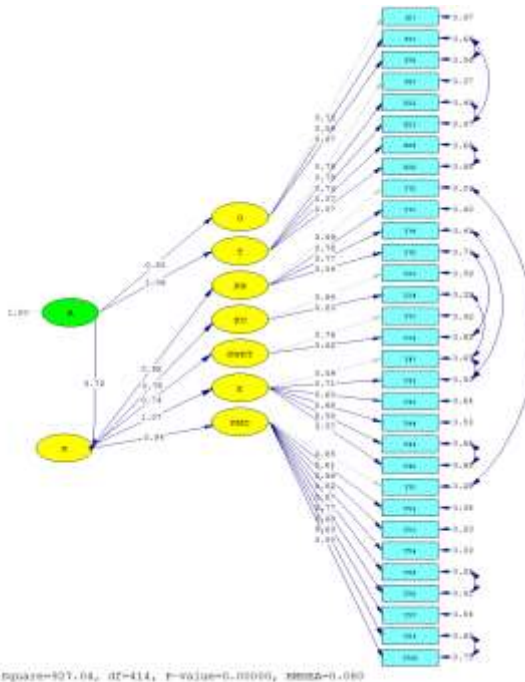


Figure 2. Full Results of Structural (Standardized) Model

The test results for structural equations are presented in the picture above. SEM testing was done by two types of testing; one type tested the suitability of the model and the other tested the significance of causality through regression coefficients. SEM model testing was used to see the suitability of the model or suitability of the model. The model conformity indices used were not different from those used in the confirmatory factor analysis. Based on the results of the above model, the chi-square = 927.04, the df = 414, the p-value = 0.0000, and the RMSEA = 0.080.

3. Model Conformity

Table 2. Goodness of Fit of the Research Model Testing

Fit Indicators	Recommended Value	Model Evaluation	Research Results
Absolute Fit			
Probability	$p > 0.05$	Significant	0.0000
Normed Chi-Square (X^2/df)	< 2	Over Fitting	2.244
	$2 < X^2/df < 5$	Good Fit	
RMSEA	< 0.10	Good Fit	0.080
	< 0.05	Very Good Fit	
	< 0.01	Outstanding Fit	
P-value for test of close fit	> 0.05	Good Fit	0.00000
GFI	> 0.90	Marginal Fit	0.76
AGFI	> 0.90	Marginal Fit	0.72
Comparative Fit			
NFI	0.9	Good Fit	0.93
NNFI or Tucker Lewis	0.9	Good Fit	0.96
Index (TLI)			
CFI	0.9	Good Fit	0.96
RFI	0.9	Good Fit	0.93
Parsimonious Fit			
PNFI	0–1	The greater, the better	0.83
PGFI	0–1	The greater, the better	0.64

Source: Results of Data Processing

The explanation of the compatibility test of the whole model is based on the above table as follows.

A. Absolute Fit

1. The chi-square statistic (χ^2) or SEM discrepancy value was 2.244 and the probability value (p-value) was 0.000. Models with good compatibility require a small chi-square value. With a sample size of 198, a chi-square value of 2.244 can be stated as good. The p-value of the research model also shows a good value, which is <0.05 . This shows that the empirical data obtained was identical to the theory built based on the structural equation modeling.
2. The Goodness of Fit Index (GFI) of the SEM was 0.76. The GFI was aligned with the coefficient of determination (R^2) in the regression analysis. This measure implies the diversity of data that can be explained simultaneously by the model built. The diversity of the data described reached 76.0%, which can be considered good because it was close to 90%, so the model could be suitably matched.
3. The Root Mean Square Error of Approximation (RMSEA) of the SEM was 0.080. A value of 0.080 is smaller than 0.08, thus it can be concluded that the model matched the data.

B. Comparative Fit

1. The Adjusted Goodness of Fit Index (AGFI) of the SEM was 0.72. This value is the adjusted GFI for the degree of freedom of the model. The AGFI that was close to 0.90 indicates that the model matched the data.
2. The Normed Fit Index (NFI) of the SEM was 0.93. NFI indicates the degree of compatibility of the model. With a value of 0.93, the model had a match rate of 93.0%.
3. The Comparative Fit Index (CFI) of the SEM was 0.96. CFI indicates the model validity. A CFI of 0.96 indicates that the model had a good level of validity and that the suitability of the model was also getting better.
4. The Relative Fit Index (RFI) of the SEM was 0.93. A model is said to be good if it has an RFI value that is close to 1, while 0.9 is the lowest value at which that a model can be said to be fit.

C. Parsimonious Fit

1. The Parsimony Normed Fit Index (PNFI) indicates the degree of freedom used to achieve a model match and can also be used for the purpose of

comparing two models with greater values being better. In this study the PNF1 value obtained was 0.83.

2. Parsimony Goodness of Fit Index (PGFI) is a modification of GFI by looking at how many latent variables are formed in the model. The greater a PGFI value the better, as long as it is in the range 0–1. In this study the PGFI value obtained was 0.64. Based on the overall suitability of the model in this study, the results show that the model was fit. Thus, the results could be interpreted or analyzed more deeply.

The Effect of Remuneration on Employee Performance Hypothesis Testing Hypothesis 1

H0: $\alpha_1 = 0$: there is no effect of Remuneration on Employee Performance

H1: $\alpha_1 \neq 0$: there is an effect of remuneration on employee performance

The results of the hypothesis testing with LISREL are as follows:

$$K = 0.72 * R, \text{Errorvar.} = 0.49, R^2 = 0.51$$

$$(0.10)$$

$$6.85$$

According to the result above, the relationship between the exogenous variable Remuneration and the variable Employee Performance had a coefficient of 0.72, which indicates a strong relationship between remuneration and employee performance.

The t count of 6.85 is greater than the critical limit of ± 1.96 . Therefore, H₀ was rejected. This means that there was an effect of Remuneration on Employee Performance.

The amount of remuneration for the exogenous latent variable Employee Performance is shown by the R square (R²) value. An R square value of 0.51 shows that remuneration's contribution to employee performance was 51.0%, while the remaining 49.0% was influenced by other factors.

CONCLUSION AND IMPLICATIONS

1. Conclusion

According to the data analysis results, it can be concluded that Remuneration affected Performance at 51%.

2. Implications

In general, Remuneration affected Performance at 51%, meaning that 49% was influenced by other factors. UT as a government organization must be able to address this condition as a challenge in managing HR. The aim of the state apparatus remuneration system is to improve the welfare of state apparatus, improve public services, and create good, clean governance through the practice of Community Service. Therefore, the government's appreciation of the performance of the state apparatus is emphasized on the principle of justice by considering its suitability with workload and responsibility. Given that the remuneration provided by UT affected performance at only 51%, many other factors can influence employee performance. Therefore, UT must be able to respond wisely because these factors will affect its organizational performance in general.

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AN ANALYSIS OF THE INFLUENCE OF ENTREPRENEURIAL COMPETENCE AND LEARNING ORIENTATION ON THE SUSTAINABLE COMPETITIVE ADVANTAGE OF MEDIUM-SIZED ENTERPRISES IN THE DIGITAL ERA

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Abstract

Micro, small, and medium enterprises (MSMEs) have become a concern to scientists and practitioners in an effort to improve the competitiveness of MSMEs. Although economically, MSMEs have a significant contribution to economic growth, they have yet to fully be able to take part in global competition. Two factors that can affect the efforts of medium enterprises (MEs) to create sustainable competitive advantages are superior capabilities and human resources in the digital era.

This study is concerned with the influence of entrepreneurship competence and learning orientation on the sustainable competitive advantage of medium enterprises. This paper aimed to analyze the influence of entrepreneurial competence and learning orientation on sustainable competitive advantage and to encourage capability, innovation, and marketing that keep up with market trends through e-commerce in medium enterprises. Benefits to be achieved such as this can provide direction and priority in policy-making and sustainable development of entrepreneurial competence and consumer satisfaction with medium enterprises.

These results indicate a) a significant positive effect of entrepreneurial competence and learning orientation on sustainable competitive advantage and b) the existence of significant positive influence of learning orientation on sustainable competitive advantage in medium enterprises in the digital era. Some of the benefits of medium-sized enterprises are 1) product development innovation, 2) familiarity of human relationships, 3) ability to create employment, 4) flexibility and adaptability to rapidly changing market conditions, and 5) existence of managerial dynamism and entrepreneurship. These advantages become a potential for the development of medium enterprises to be able to achieve high productivity and to support the competitiveness in the digital era.

Keywords: entrepreneurial competence and learning orientation, sustainable competitive advantage, medium enterprises in the digital era

A. INTRODUCTION

1. Background

The dynamics of the global economy drag most of the world's countries to engage in free trade and to develop national economic cooperation. In this regard, the right step is to optimize existing potential and to improve the national economic competitiveness in various ways to strengthen the bargaining position of the nation so that globalization brings wisdom to the welfare of society in a sustainable manner.

To Indonesia, the ASEAN Economic Community (AEC) presents some internal challenges in it and external challenges in the form of a competition with ASEAN countries. This competition will have an impact on competitive prices, not only of commodities and major industry seeds, but also of the SME sector because of the similarity of product characteristics. Given that MSMEs are the largest and most dominant business group in Indonesian economy, the achievement of future AEC's success is also influenced by the readiness of MSMEs.

Since the 1998 economic crisis, MSMEs have been showing a very important role in driving the Indonesian economy. Over time, the attention of both central and local governments to the MSME sector is getting bigger. MSMEs are also said to be an important element in saving a third country from inflation, monetary crisis, or other economic shocks that catapult the price of household goods or from being hit by unemployment and layoffs (Wilantara and Susilawati, 2016).

The economic crisis that has an impact on the business climate has caused many companies to make efforts to downsize or conduct other internal consolidation as a financial saving effort to maintain the survival and to achieve growth through effective and efficient performance. The survival and growth of a company are not only determined by the success in managing finances based on the strength of capital or money alone, but also determined by the success in managing human resources. Prayoga, the Minister of Cooperatives and MSMEs, (2016) states that at this time MSMEs are facing problems such as marketing, finance, technology, raw materials, and human resources problems.

Prayoga further states that the limitation of human resources also poses a serious obstacle for the MSMEs in Indonesia, especially in entrepreneurship aspect, management, production technique, product development, quality control, accounting, machinery, organization, data processing, marketing technique, and market orientation to face the AEC. All these skills are indispensable in

maintaining or improving product quality, improving efficiency and productivity, expanding market share, and penetrating new markets.

The Secretary General of The Ministry of Cooperatives and MSMEs, Agus Muharram, as quoted by Okezone.com, Sunday (22/4/2018), encourages MSME actors to take advantage of e-commerce. This is also in line with the development of current all-digital industry 4.0. Therefore, MSME actors, according to him, must be prepared to enter the digital era. In addition, the Managing Editor of SINDOnews.com, Pung Purwanto, introduced *Diginesia* as a joint cooperation initiated by SINDOnews, supported by many parties with the aim of empowering MSME startups with a comprehensive, measurable training program. The digital era is an opportunity as well as a challenge to startups. Young entrepreneurs and beginners should be equipped with the right strategies and managerial skills so as not to easily falter.

The effort to achieve sustainable competitive advantages is also influenced by the entrepreneurship commitment to advance medium enterprises. Andiningtias (2014) states that the constraints on entrepreneurial orientation application to medium enterprises occur because they do not innovate market products, do not take risks, and are not proactive in making innovations in the implementation of managerial performance.

In the uncertain, ever-changing business environment, entrepreneurial orientation serves as the prime mover in business that allows an entrepreneur to benefit from the emergence of opportunities, which, in turn, positively affects business performance. A better entrepreneurship orientation can improve a company's ability to market its products in better business performance (Wiklund, 1999).

Yuliana (2009) states that a competition occurs when two or more companies compete with one another to pursue a favorable market position. Therefore, it is necessary for an entrepreneur to have entrepreneurship competence and the ability to sense the market to develop his/her business activities in order to excel in a sustainable competition. The entrepreneurial competence can be seen from hard work, spirit of cooperation, innovation, desire to move forward and learn, and more.

The ever-increasing number of medium enterprises in this digital age results in rapid changes in the market. Such rapid changes in the ability to sense the market in each entrepreneur are important. Changes in this market are caused by changes in consumer tastes, consumer needs, socioeconomic conditions, technologies, and competitive activities. Medium entrepreneurs should be able to determine the

destination market so that consumers and competitors can be analyzed appropriately.

In addition, there are still many challenges faced by the creative industries or medium enterprises in Indonesia that become interesting strategic issues. There are seven strategic issues: (1) the availability of creative and professional creative resources; (2) the availability of qualified, diverse, and competitive raw materials; (3) the development of industries that are competitive, growing, and diverse; (4) the availability of appropriate, accessible, and competitive financing; (5) market expansion for works, businesses, and creative people; (6) the availability of appropriate and competitive infrastructure and technology; and (7) institutional and business climate conducive to the development of creative economy (Ministry of Tourism and Creative Economy, 2014).

Medium-sized businesses generally have limited financial resources and management and rely on a small proportion of customers (Forsman, 2008). In addition, medium enterprises also require employees who have multi-skills, are based on local economic resources, and are independent of imports. In addition, the development of medium enterprises strives to promote innovation and market orientation. All of this is directly related to the entrepreneurial orientation of medium business actors in conducting learning processes for product value creation, performance improvement, and creation of products that are difficult to imitate and better than those of competitors in order to form the basis for sustainable competitive advantage.

Medium enterprises have advantages over big enterprises in terms of the following: 1) product development innovation; 2) intimate humanitarian relationships within small firms; 3) ability to create enough jobs; 4) flexibility and adaptability to rapidly changing market conditions compared to large-scale enterprises; and 5) the existence of managerial dynamism and entrepreneurship role. These advantages become a potential for the development of medium enterprises to be able to increase high productivity (Ratih, 2016).

Although the development of medium enterprises has increased in terms of quantity, the quantity increase has not been matched by the increasing quality of medium enterprises. The classic problem faced is the low productivity. This situation is caused by internal problems faced by medium enterprises: low quality of entrepreneurship of middle business actors in management, organization, technology, and marketing domination; lack of entrepreneurship behavior; limited access to capital, information, technology, and market; and other production factors.

High performance achieved through competitive advantage is the goal of all companies who want to thrive in a dynamic, unpredictable modern business environment. In an effort to achieve this goal, medium enterprises are faced with the challenge of increasingly critical consumers who expect personalized service and fulfillment of products needed.

Based on the above description, the authors were interested in taking the title of Entrepreneurship Competence and Learning Orientation on the Continuous Advantage of Sustainable Business Medium in the digital era.

2. Problem Formulation

- a. What does the influence of entrepreneurship competence have on sustainable competitive advantage of medium enterprises in the digital era?
2. How do entrepreneurship orientation and learning orientation contribute to the sustainable competitive advantage of medium-sized enterprises in the digital era?

3. Objectives

- a. To analyze the effect of entrepreneurship competence and learning orientation on sustainable competitive advantage in medium enterprises.
- b. To examine, analyze, and explain the contribution of entrepreneurship competence and learning orientation to sustainable competitive advantages of medium enterprises in the digital era.

4. Benefits

The benefits and contributions of this paper are as follows:

- a. MEA implications provide both the expansion and the challenge especially for medium-sized enterprises that are part of the creative industry sector based on creativity and innovation. This is related to the entrepreneurial competence of medium business actors in the digital era.
- b. The right strategy through improving entrepreneurial competence and good learning orientation will result in a high sustainable competitive advantage for medium enterprises.
- c. For the Government, in particular the Ministry of Cooperatives and SMEs, the development of this model can provide guidance and priority in the policy making regarding entrepreneurship development on the empowerment of medium enterprises nationally in the digital era.

B. LITERATURE REVIEW

1. Entrepreneurship Competence in Medium Enterprises.

Suryana (2011) states that entrepreneurial competence is the interconnected knowledge, attitudes, and skills, which entrepreneurs need to be trained and to develop in order to be able to produce the best performance in managing their businesses. According to Forsman (2008), the main skills required for the success of entrepreneurship are as follows:

1. Technical competence, which is the competence in the field of design in accordance with the form of business selected;
2. Marketing competence, which is the competence in finding a suitable market, identifying customers, and maintaining the viability of a business.
3. Financial competence, which is the competence in the field of finance, arranging purchases, sales, bookkeeping, calculation of profit/loss, and knowing how to get the funds and use it.
4. Human relations competence, which is the competence in developing personal relationships, such as the ability to build relationships and forge partnerships between businesses.

Suryana (2011) explains that entrepreneurial competence is influenced by 1) Communication, 2) Problem solving, 3) Initiative and enterprise, 4) Planning, 5) Organizing, 6) Self-awareness, and 7) Technology.

Entrepreneurship is a dynamic process of additional wealth creation by individuals who dare to take risks in terms of fairness, time, and provision of value for various goods and services (Hisrich et al., 2005). The benefits of entrepreneurship are 1) self-determination opportunities, 2) opportunities for change, 3) opportunities to achieve full potential, 4) amazing opportunities for profits, 5) opportunities to gain recognition of business ownership, and 6) opportunities for fun in working something to be liked (Zimmerer and Scarborough, 2005).

The development of a quality entrepreneurial competence in the face of increasingly competitive globalization of economy to create opportunities requires a strong managerial expertise through creative thinking and innovative action. The indicators of success in entrepreneurial competence include engineering, marketing, finance, personal relations, communication, problem solving, initiative, planning, and human resource management.

2. Learning Orientation

Learning orientation is embraced by companies that emphasize learning within the organization. In a learning-oriented organization there will be an ongoing capacity building process to create a better future. The learning-oriented company has an influence on its desire to create and use knowledge (Sinkula et al., 1997).

Slater and Narver (1995) described that there are three important values that shape the learning competence, namely open commitment to new thinking and vision togetherness. This can be explained by the following: 1) the existence of fundamental values adopted by the organization affecting the learning culture or not; 2) Openness to new thinking; and 3) Shared vision.

The expertise of owners or managers of medium enterprises can be honed through continuous learning commitment to be successful. Likewise, to medium business management, the openness of thought in creative ideas is very important and must occur as a source of innovation of the product development of the medium enterprises.

The growing complexity and dynamism of the business environment have driven medium enterprises to strengthen their strategic base with customer-focused concepts to keep them accessible to their markets and ensure sustainable growth. The cycle, where employees are required to have a high learning orientation will have the desire to gain recognition from others and encourage employees to put forth more effort which then leads to higher performance. The indicators of successful learning orientation in facing sustainable competitive advantage are commitment to learning, vision sharing, open-mindedness, and adaptability.

3. Sustainable Competitive Advantages

Competitive advantage is the heart of business performance in the face of competition. Competitive advantage is defined as a benefit strategy of companies that collaborate to create more competitive advantages in their markets. This strategy should be designed to realize continuous competitive advantage so that the company can dominate the market. Competitive advantages grow from the values created by the company for buyers, including product uniqueness, competitive prices, rarity, difficulty to imitate, and difficulty to replace (Porter, 2007).

Competitive advantage relates to market orientation as a process and activity related to customer creation and satisfaction by continually assessing customer needs and desires and competitors' behavior, disseminating information

throughout the organization, and responding with a coordination, timing, and profit calculation.

According to Law of the Republic of Indonesia Number 20 of 2008 on MSMEs,

- a. a micro enterprise is a productive enterprise owned by an individual and/or an individual business entity that meets the criteria of a micro enterprise;
- b. a small business is a stand-alone productive economic enterprise, carried out by an individual or a business entity that is not a subsidiary nor a branch of a company owned by, controlled by, or a part of, directly or indirectly, a medium-sized enterprise;
- c. a medium-sized enterprise is a stand-alone productive economic enterprise; it is a large business with net worth or annual sales.

Ferdinand (2003) states that in a competitive market, a company's ability to produce performance, especially financial performance, depends on the degree of competitive advantage. To perpetuate its existence, the company's competitive advantage must also be sustainable because basically, the company wants to perpetuate its existence.

Assauri (2013) explains that a company's success in maintaining sustainable competitive advantage can be achieved simply because of two strategic actions: first, it can be achieved with a business strategy that maintains its competitive advantage, customer satisfaction, and customer loyalty levels; second, it is achieved by developing a creative and flexible marketing program to accelerate and pursue opportunities and increase corporate profits. In the real world, change will always occur. Because they are influenced by technological and social changes, the needs and wants of customers will always change.

C. ANALYSIS OF THE EFFECT OF ENTREPRENEURSHIP COMPETENCE AND LEARNING ORIENTATION ON SUSTAINABLE COMPETITIVE ADVANTAGE.

1. Analysis of the Effect of Entrepreneurship Competence on the Sustainable Competitive Advantage of Medium Enterprises.

In medium enterprises, knowledge can be divided into two types, namely 1) the knowledge inherent in the products resulting from intellectual creativity and 2) meta-knowledge, i.e., the knowledge of products and processes. The success of medium enterprises in an increasingly competitive market largely depends on the

quality of the knowledge applied in the organization. Therefore, the success of medium enterprises relates to how to manage knowledge (Brush et al., 1992).

It has now been more widely recognized that the only resources that can provide a sustainable competitive advantage for an organization will lie in the ownership of intangible resources, including human resource competencies, knowledge management, organizational capabilities, and experience. The ownership of intangible assets will be of benefit of tangible or profitability (Becker, Huselid and Ulrich, 2001 in Wijayanto, 2008).

In today's digital era, changes in the external environment of an organization take place very quickly. Therefore, it takes a resource to support the survival of the organization, but it is also important to create opportunities to win the competition and provide a sustainable competitive advantage. This ability to produce accumulated diverse thoughts and ideas as the basis for the creation of unique knowledge for organizations that develop and manage human resources as their own strengths is useful for dealing with any uncertainties caused by environmental changes (Wijayanto, 2008).

2. Analysis of the Relationship between Entrepreneurship Competence and Orientation of Learning in Medium Enterprises

Medium enterprises, in developing human resource competencies, are encouraged by the desire to develop the market and build their ability to continue to be able to adapt to all changes through continuous learning process (Rahab and Sudjono, 2012).

Some experts have indicated that entrepreneurial competence has a close relationship with the orientation of learning. Calantone (2002) argues that the higher the level of entrepreneurial competence in innovating, the stronger the impact on the orientation of learning innovation. Chohen and Levinthal (1990) state that human resource innovation competence has a significant relationship with the orientation of learning within the company.

3. Analysis of the Relationship between Entrepreneurship Orientation and Sustainable Competitive Advantage in Medium Enterprises.

Increased market competition and an emphasis on cost reductions while a company is increasing revenue are two things that can drive the company to increase entrepreneurial activity. Entrepreneurial competence is needed in the implementation of marketing strategy in order to obtain a steady competitive advantage through responsiveness to customer needs (Render and Heizer, 2004).

Competitive advantage can only be achieved through a design and strategy brainstorm effort for a company to continuously be able to compete more effectively and dominate the old and new markets (Porter, 2007). The results of Anriyani's research (2005) show that entrepreneurial competence influenced the company's strategy of excellence. Supranoto's research (2009) shows that competitive advantage had a positive effect on marketing performance.

4. Analysis of the Relationship between Learning Orientation and Continuous Competitive Advantage in Medium Enterprises

Sinkula et al. (1997) argue that the learning process of a company is a way to develop a process of innovation and sustainable competitive advantage for the company. Knowledge-based economics requires that medium enterprises use knowledge efficiently and increase the innovation potential because they will be able to compete in that economy if they can support their competitive advantage by leveraging their unique knowledge and building the ability to learn faster than their competitors. Learning orientation is an important factor in gaining competitive advantage.

The results of the research by Noble et al. (2002) suggest that a combination of market orientation and learning orientation will result in a long-term competitive advantage. Therefore, in the digital era, according to Harmawan, to encourage SMEs that are technologically literate and brave to compete in the global market, more *Diginesia* program activities in various regions in Indonesia will be helpful. MSME digitalization efforts can be established by means of private initiatives through various local SMEs' capacity building programs with local government involvement in the provision of training and opening a road map of market networking to provide a website capable of marketing products for them to grow.

Solechah (2018) states that by applying the MSME strategy correctly, a business will be able to achieve success and run smoothly and continuously in the following ways:

1. **The Right Product (Price).** Business entrepreneurs of SMEs, including medium enterprises, can determine which product is right to market, in that the product should be interesting, innovative, creative, and beneficial for its users. Medium enterprise managers can conduct market research to survey the market and consumers. The more observant managers are, the greater the chance to win the business competition.

2. **Appropriate Prices (Product).** The main costs for MSME actors are the cost of capital prepared by self and operational costs, including employee salaries, raw materials, and production costs. A few tips for SMEs that have small capital and access to financial institutions.
3. **Strategic Location (Place).** It is about choosing a strategic, ideal location. A selected location of business can be at places that are either crowded with visitors or often skipped by people. But in this all-digital era, a place of business can be in the form of an Internet website.
4. **Promotion System.** Promotion can be carried out via social media because social media have become one of the most profitable promotional media. This system is very appropriate to promote products widely, quickly, and precisely.
5. **Human Resources.** Lastly, it is necessary to make sure that the human resources involved in SMEs are those who understand the business in which they are engaged. To get the right employees, a recruitment and selection process should be undertaken to get qualified human resources in today's digital era.

D. CONCLUSIONS AND SUGGESTIONS

1. Conclusions

- a. There is a significant positive influence of entrepreneurship competence and learning orientation, partially, on sustainable competitive advantage.
- b. There is a significant positive influence of entrepreneurship orientation and learning orientation on the sustainable competitive advantage of medium enterprises in the current digital era and in the future.
- c. To strengthen their competitiveness in the digital era, enterprises should encourage the creation of quality resources, make innovations, and follow market trends through e-commerce and consumer satisfaction.

2. Suggestions

There is a need for a synergy between entrepreneurship commitment and learning orientation in order to increase sustainable competitive advantage so that medium enterprises exist and succeed in the globalization of economics in today's digital era.

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BUSINESS COMMUNICATION STRATEGY OF A COFFEE SHOP (A CASE STUDY IN MEULABOH CITY, WEST ACEH)

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Abstract

This article aimed to examine the business communication strategy of a coffee shop in the city of Meulaboh, West Aceh. This coffee shop still survives to this day despite the impact of the 2004 tsunami in Aceh. This coffee shop's development in the city of Meulaboh has been increasingly rapid with more unique and interesting facilities available. This research used a descriptive-qualitative research method by analyzing the right strategy for improving service and attracting customer interest. Based on the results of this study, it can be concluded that the owner of the coffee shop in Meulaboh City has made various strategies to attract the interest of coffee lovers so that many customers remain at the Coffee Shop. A business communication strategy has been implemented at the coffee shop in Meulaboh City, that is, the owner of the coffee shop always presents a new and comfortable atmosphere. He also provides delicious, high-quality coffee, delicious Acehese pastries he previously selected, full Wi-Fi service, traditional coffee presentation, sugar on the table, and special cups for mini *sanger* and mini coffee, guarantees the cleanliness and satisfactory service, and presents a traditional but attractive room design. The coffee shop in Meulaboh City calls for preaching to its customers, as at the call to prayer with the closing of their stores and also the availability of Mushalla available at Coffee stalls, as well as providing reading cabinets in cooperation with the Regional Library. It is also an attractive business communication strategy used by coffee shops in the city of Meulaboh, West Aceh, Aceh today.

Keyword: strategy, business communication, coffee shop, Meulaboh City

INTRODUCTION

The people of Aceh have their own habits in terms of coffee we do not encounter outside Aceh. The people of Aceh are willing to take their time to drink coffee, although only briefly, with friends or relatives. This become the uniqueness of the people of Aceh. After earthquakes and tsunami, coffee shops have mushroomed in Aceh, indicating that this business of providing coffee drinks is the choice for the people of Aceh, especially in Meulaboh, West Aceh, that was destroyed by a tsunami on 26 December 2004. Various types and models, both from the Ministry as well as the place and facilities that use free internet (WIFI) as an attraction for the consumer to become regulars coffee stalls. This is certainly not an easy job. With a large number of coffee shops that sell the same products, the competition for consumers is unavoidable.

Many places at the heart of Meulaboh City, especially in Johan Pahlawan, are overgrown with coffee shops after the city was hit by a tsunami. The coffee shops in the city of Meulaboh are among the coffee shops that serve Ulee Kareng coffee from Banda Aceh. These coffee shops spread all over the city and survive to this day.

This strengthened the presence of billboards on the front page and a wall in the coffee shop that is renowned as the number one coffee in Aceh. Not only coffee is available in the coffee shops, but also hot tea, *teh talua* (literally egg tea), *teh tarik* (literally pulled tea), and *sanger*, which is a blend of coffee, a little milk, and sugar. They also provide traditional Acehnese pastries such as *puloet*, *timphan*, and *bingkang*. Inside the coffee shops dozens of people who relax and chat with each other are seen. A dozen tables in the shops are occupied by visitors. All have one purpose, which is drinking coffee. The words “get some coffee” are not unfamiliar to the people of Aceh. The look of people with a cup of coffee and cigarette is the hallmark of the coffee shops in Meulaboh City.

Every effort necessary for a communication strategy in Economics is called marketing, while in communication sciences, it is referred to as business communication. Business communication is communication that is used in the business world that includes a wide variety of forms of communication, both verbal and non-verbal, to achieve a particular goal. Verbal communication is one form of communication commonly used in the business world to deliver business messages to another party, either in writing or orally. The verbal form of communication has a regular structure and is well-organized, so that the purpose of the submission of business messages can be achieved with either. Meanwhile,

non-verbal communication is the most basic form of communication in business communication.

Before using words, humans use body language (body language) as a means of communication with others. Effective business communication relies heavily on the skill of a person in sending or receiving messages. In general, one conveys business messages by writing and speaking and receives business messages by listening and reading. Based on the explanation above, this paper aimed to know the business communication strategy of a coffee shop in the city of Meulaboh. Many other coffee shops that do not carry out good marketing will be outdated and will not last long.

RESEARCH METHOD

In this study the author used a qualitative method. In the literature study method, the term “qualitative” does not only refer to a common data type, but also relates to the analysis and interpretation of data as study objects. In qualitative research, implementation history originated from the observation.

As a comparison, in quantitative research observations take form of measurement of the specific characteristics of a level. However, qualitative research refers to a natural facet of disputed with quantum (amount). That is, qualitative research is not meant to hold calculation in quantity.

So the qualitative method is a method (away) systematic research that used to review or examine an object in a natural setting without any manipulation within and without any hypothesis testing, with natural methods when results a study on the expected is not generalizations based on measures of quantity, but of meaning (in terms of quality) of the observed phenomena (Prastowo, A, 2011). In this study, the authors will drop directly into the field (field research) looking for data and information in a coffee shop in the town of Meulaboh with the problems discussed "Business communication strategy at the coffee shop of Meulaboh city, West Aceh, in a case".

A coffee shop is different to the other stalls. Coffee is a drink that provides coffee and other beverages. Many people who spend their time in a coffee shop just to interact with one another, relax as well as writing and reading. Coffee plants long cultivated plantations. Aside from being a source of income of the people, the coffee has also become the mainstay export commodity and source of foreign exchange earnings of the country. There are four types of coffee known groups namely robusta, Arabica coffee, liberica, ekselsa. The coffee group is known to

have economic value and be traded commercially namely robusta and Arabica coffee.

Meanwhile, a group of Liberica and ekselsa coffee are less economical and less commercial. Arabica and robusta coffee supplies most of the world's coffee trade. Arabica coffee has higher taste qualities and caffeine levels lower in comparison than robusta so prices are more expensive. The quality of robusta coffee under Arabica but robusta resistant to leaf rust disease (Raharjo. P, 2013).

1. Communication Definition

The term communication comes from the Latin word "communication" meaning "notice" or "Exchange of thoughts". The term communication on the word "communis" meaning "equal". The intended word here mean is the same "same meaning". So the people who are involved in the communication must be in common meaning, then the communication does not take place (Effendy. U. O., 1993). Communication is the delivery of the mind or feelings by a person to another person. The process of delivering it lasts generally use the language. Language is a symbol that represents something, whether tangible or intangible, that other good words with concrete, and abstract.

As social beings humans always want to connect with other human beings. He wanted to know the surroundings, even want to know what's going on inside him. Curiosity that compels the human need to communicate. In the life of society, people who never communicate with others undoubtedly will be isolated from the people. The influence of marginalized this will cause mental depression that ultimately brought the loss of balance of the soul, therefore, Dr. Everett Kleinjan from the East West Center in Hawaii, the communication is already a part of the eternal human life as well as breathing. All human beings want to live, he needed to communicate.

Many experts argued that communication is a very fundamental needs for someone in the life of society. Professor Wilbur Schramm said that communication and community are two twin words cannot be separated from each other. Because communication is not possible without a community is formed, the opposite is not possible without the community can develop a communication (Cangara. H, 2009). Communication is one of the human activity which is known by everyone but the very few that can define it satisfactorily.

The communication has the definition of infinite variations such as; mutual talking to one another, television, information dissemination, our hair style, literary criticism, and many more.

As for the function and usefulness of communication is the potential that can be used to fulfill a specific purpose. Communication as science has a function that can be used by humans in fulfilling the needs of his life. The communications function is classically intended for:

- a. Giving information
- b. Entertaining
- c. Educating and
- d. Forming the public opinion

The occurrence of a communication process because it was supported by some element or elements of which are:

- a. Sources
- b. A message
- c. Channel
- d. The recipient
- e. The effect of
- f. Feedback
- g. Environment or situation

The media is a tool that is used to move messages from the source to the receiver. The recipient was the party that was the target of messages sent from the source to the receiver. The influence or effect is the difference between what is thought, felt and performed by the recipient before and after receiving the message. Feedback is the response given by the recipient as a result of the receipt of the message from the source. Conciliation of environmental situations that affect the course of communication.

If the communication is seen as a system, then the communication disorders can occur on all elements or the elements that build it, including environmental factors observed that communication happen. According to Shannon and Weaver (1949), communication interruption occurs if against the intervention of one of the components of communication, so that the communication process cannot take place effectively.

While the intended communication obstacles are the existence of obstacles that make the process of communication does not take place as the hope of the communicator and the receiver. Distractions or obstacles can be distinguished from basically the communication of eight kinds, namely:

- a. Technical Distrubtion
- b. Semantic Disturbance
- c. Psychological disorder
- d. Physical or organic obstacle

- e. Barrier status
- f. Obstacles framework think
- g. Cultural obstacles
- h. Bureaucratic Hurdles.

The main obstacle in communicating is that we often have different meanings in the same coat of arms against. Therefore, the communication should be considered as an activity where there is no action or expression is given the full significance unless identified by the participant of the communication involved. Stewart I. Tubbs and Sylvia Moss describes a model of communication.

- a. Linear communication Model that is a model of communication in one direction (one way view of communication). Where the communication provides a stimulus and response communication or response expected without selection and interpretation.
- b. Two-way communication Model is a model of transactional communication is a continuation of the linear approach. On this model happen feedback of idea.
- c. Transactional communications Model namely the communication can only be understood in the context of the relationship between two or more people.

In everyday life, the communication process at the start by a source of either individual or group that is trying to communicate with other individuals or groups. The first step is the source of creation one ideation idea or the selection of a set of information to be communicated. This Ideation constitutes the Foundation for a message to be delivered.

The second step in the creation of a message is the encoding that is the source of the translation of information or ideas in the form of words, signs or symbols that are intentional to convey information and are expected to have the effect of another. The message or messages are tools which the source expresses the idea in the form of oral language, written language, and nonverbal behaviour such as sign language, facial expressions, or images.

The third step in the process of communication is a message that has been encoded. The last stage in the communications process is the feedback or feedback allowing source can be formed of words or the holding.

Everett m. Roger, an expert on the sociology of rural America that is then more pay attention to the study of communication research in particular in terms of the dissemination of innovation makes the definition of communication,

namely: "communication is the process by which an idea is redirected from the source to one or more recipients with a view to changing their behaviour. "

These definitions were developed with Lawrence d. Kincaid (1981) so gave birth to a more advanced definition by stating: "communication is a process whereby two or more persons form or Exchange information with each other, which in turn will arrive on a deep mutual understanding ". Unlike with Carl I. Hovland, Bernard Berelson, and Gary A. Stiner in defining communication. Carli. Hovland defines communication science as systematic attempt formulated expressly principles delivery of information as well as the formation of opinions and attitudes. Hovland study communication science suggests not only the delivery of information but also the formation of public opinion (public opinion) and the attitude of the public (public attitude) that in social life and in political life plays a very important role .

Even in the definition specifically on understanding the communication itself, Hovland said that communication is the process of altering the behavior of others. Communication according to Hovland is the submission of information by a person to another person to the formation of attitudes and opinions. It means someone who will communicate course is to affect other people. Bernard Berelson and Gary a. Stiner defines communication as the transmission of information, ideas, skills and so on using the symbols, words, pictures, figures, graphics, and so on. The Act or process of transmission that is what usually is called communication.

The main character of this theory is the George Herbert Mead. He was the first to publish some articles while teaching at the University of Chicago. According to her basic assumptions of symbolic interactionism consists of three main concepts:

- a. The Mind deals with the concept of mind,
- b. Self-esteem is related to the concept of self, and
- c. Society with regard to the concept of community.

According to Sudjarwo the theory of symbolic interaction emphasizes on capability of individuals to interact using symbols and impose definitions of their own subjective reality against the social situation they face. Whereas, according to Judistita said that the theory of symbolic interaction of it focusing upon the origin of the interaction, namely the social activity is dynamic in individual lives.

2. Communication Strategy

In communications launched an organization, whether it be political or communications business communications. In the book (Effendy, u. O, 2007) communications experts mainly in developing countries, in the last years gave his attention to communication strategy in relationship with the activities of national building in their respective countries.

The focus of attention of an expert communication is indeed important for the communication strategy aimed at successfully whether or not, because the communication activities are effectively determined by the communication strategy. On the other hand, without a strategy of communication, mass media that increasingly modern, now much in use in the countries that are developing because simply acquired and operated easily, not impossible would cause negative influence. Strategy on the fact is planning and management to accomplish a goal. But to achieve such an objective, the strategy does not function as a road map that only shows direction only, but rather should indicate how its operational tactics.

Similarly the communication strategy is a combination of communication and communication management planning to accomplish a goal. To achieve those goals communication strategy must be able to demonstrate how to operate tactically to do, within the meaning of the word that approach (approach) can be different at any time depending on the situation and conditions.

As with any field, performance strategy communication strategy must be supported by the theory, because the theory is knowledge based on experience that has been tested. Many theories of communication are have been advanced by experts, but for the communication strategy is probably a good idea to provide an adequate communication strategy is supporting what was conceived by Harold d. Lasswell. Lasswell as quoted by Oenong stated that the best way to explain the communication activities is to answer the question "Who Says What To Whom In Which Channel With What Effect?"

- a. Who? (Who is the communicator?)
- b. Says What (what message was stated?)
- c. In What Channel? (The Media what he used?)
- d. To Whom? (Who is his communicant?)
- e. With What Effect? (The effect of what was expected)

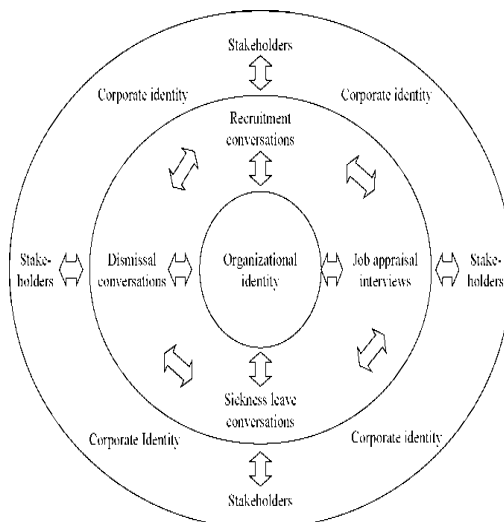
Lasswell's formula seems much simpler course. But if we examine further the question "what is the expected Effect," in an implicit contain another question needs to be answered carefully. The question is:

- a. When (when he did?)
- b. How (how to do it?)
- c. Why (why is it implemented?)

In a communication strategy the role of communicators is essential. Communication strategy should be flexible such that communicators as executor can immediately hold a change if there is a factor that influences. An influence that block communication can come at any time, all the more if the communication is made through the mass media.

The start communication with evoking attention will constitute the beginning of successful communication. When attention communican has awakened, it should be followed by an effort to grow an interest (interest), which is a higher degree of attention. Interest is continuation of the attention which is the starting point for the onset of desire (desire) to do an activity which is expected to communicators. If there is a desire only to communican, for communicators have not mean anything, because it must be continued with the arrival of the decision (the decision), namely the decision to undertake activities (action) as expected communicators.

And research conducted by Helle Kryger dkk from the University of Aarhus Denmark Management Conversation in "Denish Commpanies Communicating Coorporate Values and Strategies.



Source: Inspired by Cornelissen (2004, p.69)

Design of image and above it was a Framework that explains how the various forms of communication in the direction towards a success of companies and organizations. Then also pointed out that the communication process conducted Public Relation there are four stages, namely: the discovery of the fact (fact finding), planning, implementation (actuating) and evaluation.

3. Business Communication

The company also does business as an organization communication. Communication that occurs within the company is referred to business communications. When compared to individual communication, business communication is more complicated and complex. Communication happens in business can be internal communications, external communications, is formal or informal, and may take the form of verbal or nonverbal. In business organizations, communication in general are official. Therefore, business communication emphasized on verbal communication, i.e. speaking, listening, writing and reading. In business, communication is done by salespeople, technicians, telephone operator or with official letters. Business communication, whether oral or written, has the following characteristics:

- a. the message written for the audience in need of information, therefore understanding of audiens is very important.
- b. Business Message drawn up taking into account the time and cost.
- c. Business Message drawn up for more than one purpose
- d. Despite the things that business remains disappointing, messages are arranged properly to maintain a relationship of cooperation with all the parties, especially the customers.
- e. Business pay attention to Message tone and its effect on the audience.

In the life business in the globalization era and free trade at the moment, the information flows in and out of the company beyond the boundaries of the territory of various countries and cultures. Communications that occur in the business world this hereafter with the business communications.

In an enterprise, the people in it will communicate with each other, which is known for its internal communication. In addition the company also had to communicate with the outside companies, such as suppliers, competitors, Government, society and the retailers.

Business communication itself consists of speaking, listening, writing, and reading. In today's business life, the information must be provided and the

information that the company very much. If the previous manufacturing company need not provide information on ingredients contained in the product, now being required to inform. Effective business communication can enhance the good name (goodwill) of the company, increasing rapport, with communities and provide greater possibilities for consumers to do what was suggested or desire company (Haryani. S, 2001).

In business there are also marketing. According to Kotler's marketing is a social process by which individuals and groups obtain what they need and want through the creation and exchange of products and value with others, according to Jobber marketing is goal achievement company through continued meetings according to the performed to meet customer needs, this is what we do to be better than the competition.

Marketing is not only much more than sales, marketing also is not a specific activities covering the whole business. He is seen as the overall business that is viewed from an orientation on results, is the view of raising, caring, and responsibility towards the marketing manager must absorb all areas of the company. The following are some of the important elements contained in the marketing, namely:

- a. Marketing focused on activities to satisfy the needs and wants of customers
- b. The philosophy of marketing needs to be owned by everyone in the Organization
- c. Future needs should be identified and anticipated
- d. Marketing Usually focused on profits, especially in the sector of the company, but as a public sector organization or non-profit organization marketing concepts can be adopted although this need not be required in some cases.
- e. New definition of marketing acknowledges the influence of marketing on society.

Talking about business communications then will talk about marketing and promotion because the three are inseparable. Marketing communications is part of the overall marketing activities. Known in marketing or marketing mix that consisted of price, place, promotion, product, people, process, physical evidence.

Marketing is attempting to create more value from the view of consumers or customers to a company's products compared to its price and display those values higher than the products of its competitors. Marketing is one of the main functions in determining a company's business.

Marketing is a means of connecting the main company with consumers or in other words energy marketer is spearheading the company's business because they motivate consumers to buy company products or Transact with the company. Between the marketing of products and services is very different. Usually for manufactured products are permitted to advertise in the media either mass or electronic. While for is ethically and morally services are not allowed to be advertised or publicly disclosed towards general audiences.

When a person or a coffee shop running its business then he should be promoting a product that he got. The promotion activity is to disseminate messages about a product so that the product is remembered by the consumer or their customers, these messages stimulate them to do against demand and supply these products.

Promotion often involves ongoing ads published through mass media. Some activities such as advertising, product sales, and public relations is often regarded as the aspect of promotion. The main goal of the promotion is Informing (inform), persuading (coax) and reminding (remind).

Business activities are not always clean from the elements of the crime. The competition situation is getting tight or in a State of distress are able to trigger the appearance of unethical behavior. Unethical behavior can happen to individuals or companies. Business ethics helps the company's business problem to solve with a touch of moral. So, the goal of business ethics is an evocative awareness of businessmen to run business with good for the sake of maintaining the company's reputation.

In General, ethics of communication in companies associated with trustworthy, fair, impartial, respect the rights of others, and consider the influence of an utterance or action against another person. Meanwhile, unethical actions concerning the self-serving deceit against consumers misleading ads and achieve something with justifies all means.

Some sources say that the moral values so that the business can become evident in the performance of the company has required values into the form of a formula which is more concrete and operational code of conduct. According to Rosita Noer (1995) stated that the search for a guide for the determination of business ethics in Indonesia is not difficult. Because basically every human behavior must be Indonesia refers to the practice of Pancasila which its operational are arranged on the underlying legislation.

Business is human activity in organizing the resources to produce and distribute goods and services to meet the needs and the wishes of the community.

The business is proving what was promised (promise) and provided (delivered). A business is an activity among men to bring in profit. In business there is competition with different rules with different norms in society. Business sense in big Indonesian Language Dictionary is: activities with leading energy, thoughts, or something to achieve a purpose and activities in the field of trade.

Businesses can also be interpreted based on the context of the organization or company that is venture organizations or companies with supply of goods or services with the intention of obtaining more value (value added). Marketing communications is part of the overall marketing. Known in marketing or marketing mix the marketing mix that consisted of:

- a. Price is the price
- b. Place is the place
- c. Promotion is promotion
- d. the Product is the product of (elements of relatively fixed).

The list above shows one of the elements of the marketing mix is "promotional" and promotion cannot be done without this publicity is publicity and communication so called marketing communications (as part of marketing). Marketing communication has the opportunity to form a communication mix by mixing multiple media work, here it is worth keeping in mind that in these mixed results trying to accomplish is present in different amounts.

DISCUSSION ABOUT COFFEE SHOP FOR DA'WAH

When we say coffee shops in Aceh immediately carried away in a noisy and crowded. The number of people who enjoy a cup of coffee and other drinks while telling or sharing with each other. Then there was the process of the development of the Many coffee shops in West Aceh, Meulaboh.

This coffee shop dating from before the Tsunami in Aceh, this place is a favorite because it can popularize coffee in the entire country. Coffee shop that is a legacy of the predecessor of the ule balang in Aceh. And after the Tsunami in Meulaboh city sprung up coffee brought from Banda Aceh mainly from Ulee Kareng. The story of coffee shop business in Aceh is very interesting, especially in the city of Meulaboh, because of the large number of migrants and volunteers from different countries come to Meulaboh and the feel of the coffee is delicious and there is his trademark continues to become more crowded in the development of the stall coffee in the Meulaboh city with facilities and attractive place.

If we look the history of the coffee beans that are already collected the milled, dried and packaged in a plastic suit weighs. The coffee is sold to markets and sent to other coffee shops. It was done from the Ulee kareng and brought to Meulaboh.

There is a coffee shop in Meulaboh nowadays, many people arriving important officials, politicians, businessman, artists, students and community leaders. A coffee shop has never deserted from the visitors loyal and fanatic, since finished prayer till the midnight hour when the existence of the ball matches, to enjoy a coffee or other drinks while having a chat with a friend and other.

They come from different walks of life and diverse backgrounds who makes the coffee shop as a meeting place. The owner of the coffee shop provides WIFI, so many people come to enjoy a coffee and discuss.

There are some tricks presented by who got the following coffee shop related to the selection of the best quality coffee by working with farmers to get superior coffee and establish good relations with coffee farmers.

Then the process, starting from the coffee that still rely on the tree and the process of milling. Afterwards coffee at warehouse for four months in order to lower the acid levels. Then cleanup the coffee (Coffee Cleaner) and roasted way. After that also added the eggs, butter and a bit of sugar. If someone else is cooking beans could produce 4 pounds in a certain time, the seeds that are in the coffee shop of the city of Meulaboh as seed selection to be enjoyed with his trademark.

1. Coffee Shop Business Communication Strategies

For the majority of the people of Aceh, coffee shops are certainly not foreign names. This coffee shop is very well known by all walks of life, from the common people, students, officials and even foreign tourists who come to Aceh would be invited here. Coffee shop has its own uniqueness. When the many coffee shops that do a modernization complementary by WIFI facility, infocus etc to stay afloat with a new concept.

According to the owner of the coffee shop, the cakes are in place at the coffee shop are selected in advance. His election to the size of the cake, the tasty of cake, the cake expiration limit and the way of its creation. Cake in a coffee shop on the present solong 5 this is the cake because the owner of the coffee shop would like to no difference on the same order not denotes with other stalls.

Other strategies from a coffee shop in the town of Meulaboh is the stall is very different ways of serving with other stalls. Observationally, the coffee shop has a special small-sized cups and sanger. This stalls want to display things that are different from the other stalls on the concept still traditional. Visitors are very

pleased with the presentation of a mini coffee and sanger in small cup because that's one of its own uniqueness and it could be the hallmark of a coffee shop.

Hygiene is one of the main strategies of a coffee shop in Meulaboh cause the visitors will be comfortable while enjoying a drink in a coffee shop. Therefore, as soon as visitors get up and settled the great coffee, then stewards cleared tables directly.

The owner of the coffee shop explains that if we open the internet and searching about coffee shops very easily we get in the media because many writings about the coffee shops of the city of Meulaboh. The reporters are very pleased to lift the title of coffee shops. Assorted writings we can get on the internet about this stall. At a time when foreigners visit the coffee shop, the service is the same as other Acehnese. Maids ever able to offer drinks to foreigners who drink coffee at the venue in English fluently.

2. Business and Islamic Propagation

Meulaboh is one of Aceh Province which is implemented of Syari'a Islam title with City Unity Sufism, then the coffee shop is one of the coffee shops in Aceh, must have a prayer place for worship.

There is a coffee shop across from the mosque, a strategic location is utilized for calling for the propagation of Islam. When azan Zuhr, 'Asar, Isya and Mahgrib reverberate in the mosque, the waitress coffee shop invites its customers perform worship and closed the door of their store. This is also one of the symbolic forms of communication used by the owner of the coffee shop in communicating Islam to the people of Aceh as the area of Islamic jurisprudence.

Islam is a religion that aims to deliver his people reaching for the happiness of the world and the hereafter, a religion that has a balance in the process call people to the better way. It can be seen from the figure he has the Prophet Muhammad, which is carrying out the mandate *basyiran wa naziran* (bearer of good news and a good warning).

In the process of reaching what was aspired to it, Islam has set up various teachings for people, among them the teachings of *amar ma'ruf nahi munkar*, and it is. Fellow believer should be mutually invited to favor and prevent the devilry things. God says in the Quran surat Ali Imran paragraph 104, which means it is "and let there be among you a party faithful who exhorts to virtue, telling him that and prevents it from ma'ruf are great, they're the lucky ones". Fellow Muslims also charged for mutual counsel advised in patience and righteousness.

Da'wah according to understanding terminology expressed by experts in an effort to encourage the man in order to do the virtues and guide, exhorts them to do that with and prevent against the great evil deeds in order to get the happiness in the world and in the hereafter. There are also experts who shared a sense of da'wah from two points of view. First, the sense of preaching in general i.e. something science which contains the ways and requirements, how should attract the attention of men to adopt, approve, implement an ideology, opinions, particular job. Second, the sense of preaching according to Islam is to invite mankind wise way to the right path according to the commandment of God for the benefit and happiness of the world and the hereafter. M. Shakir defines da'wah as a rallying cry or solicitation to unrepentant or converting to a better situation and a perfectly good against private or public.

The purpose of Da'wah to muslim family is connecting an Islamic life can be in the household. The purpose of Da'wah to the community expected that connecting the pillars of life and peace, obedient in carrying out religious teachings and has high social concern. So the core of the objectives to be achieved in the process of implementation of the Da'wah in reaching means God Almighty, from any angle for calling it a referral then the point is amar ma'ruf nahi munkar.

CONCLUSION

The owner of a coffee shop in the town of Meulaboh highly maintaining the quality of the coffee. Coffee beans are imported directly from Banda Aceh and then save for four months, done the cleaning coffee and pan with coals of fire. Then cultivate coffee until it stuck on every tongue. The owner of the coffee shop is always present on-site for control officers and the owner of the coffee shop involving customers in his efforts. Meulaboh town coffee shop always provides free WIFI to customers for the convenience of the coffee. The waitress coffee shop in the town of Meulaboh is very friendly with visitors so that visitors feel familiar with a Minister although the visitors had not become customers. Hygiene at coffee shops very assured because the waiters are always floor cleaning and cleaning the table when visitors complete a coffee. Coffee shops still retain the old traditional concepts.

The design of the room at the coffee shop so there is just a traditional plastic chairs, ceramic and wood table desk with a design like that visitors feel comfortable and can find the traditional coffee shop. Coffee shop also invites its customers to perform acts of worship to pray at a nearby mosque and mushalla

when the call to prayer rang and they also provide a place of worship as the implementation of Shari'a in Aceh. Coffee shop provides the sugar on the table so that guests can enjoy visiting a coffee flavor. Coffee shop not only provides coffee and other beverages alone remains also provide pastries typical of Aceh who have been selected by the owner of the coffee shop, Aceh noddles, fried rice, martabak sold in coffee shops. As well as the existence of a place of the bookcase for a book reading enthusiasts working with the library area of West Aceh.

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MEASURING INFORMATION SYSTEM SUCCESS AND ACCEPTANCE OF KEMENKEU LEARNING CENTER (KLC) OF THE MINISTRY OF FINANCE OF INDONESIA

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Abstract

There have been some studies that developed models for evaluating the success and acceptance of e-learning information systems in government training institutions. There has been an integration of three evaluation models, namely the UTAUT acceptance model, DeLone and McLean Success Model of Information System, and the HOT Fit conformity model. This study analyzed the factors that influence the success and acceptance of the Kemenkeu Learning Center (KLC) information system developed by the IRB using the integrated evaluation model. This study proves that 1) human and organizational factors and technological factors are positively and not significantly related to the intention to use the system, 2) the intention to use the system is positively and significantly related to user satisfaction, 3) the intention to use the system and system user satisfaction are positively and significantly related to net benefits, and 4) there is a relationship between human, technological, and organizational factors with each other.

BACKGROUND/OBJECTIVES AND GOALS

1. Background/ Objectives

The number one benefit of information technology is that it empowers people to do what they want to do. It lets people be creative. It lets people be productive. It lets people learn things they did not think they could learn before, and so in a sense, it is all about potential (Ballmer, 2005). Progress in information technology has changed and affected many things, as stated by Lawlor (2007), "Advances in information technology have changed the way we live and how people, business, and governments interact with each other."

In the private sector and business, almost all companies have used information technology to improve productivity, expand market share, and increase

effectiveness and efficiency in business processes. From the government side, the development of information technology needs to be utilized as a new way of organizing optimal public service activities, namely through adopting a system that utilizes the development of information technology known as e-government. Presidential Instruction No. 3 of 2003 is one of the first steps the Indonesian Government takes to implement national policies and strategies in the development of e-government. The use of communication and information technology in government processes (e-government) will be able to improve public services and increase transparency and accountability in the administration in order to achieve the goals of good governance.

E-learning is one of the emerging technological innovations in the world of education and training in the form of learning information systems through electronic/online media. According to Brown (2000) and Feasey (2001) (in Siahaan, 2002), e-learning is a learning activity that utilizes networks (internet, LAN, and WAN) as a method of delivery, interaction, and facilitation supported by various other forms of learning services. The main characteristics of e-learning that can attract more users, as well as the characteristics of students in Southeast Asia who tend to have visual learning styles (Park, 2000), make e-learning run in not only various educational institutions in Indonesia such as universities, but also various government agencies, including the Ministry of Industry, the Ministry of Law and Human Rights, the Food and Drug Supervisory Agency (BPOM), the Financial and Development Supervisory Agency (BPKP), the Supreme Audit Agency (BPK), and the Ministry of Communication and Information. The purpose of implementing e-learning in government agencies is to make it easier for employees to obtain knowledge and conduct online learning activities. The Financial Education and Training Agency (BPPK), which is an echelon I agency of the Ministry of Finance responsible for administering education and training for the Ministry of Finance employees, has also begun to implement e-learning, which can be used in the process of organizing training activities. Thus, in addition to the existing conventional learning activities such as training (both special and general), seminars, and focus group discussions held in class face-to-face, there is also the delivery of learning material online through online learning media currently being developed by BPPK called Kemenkeu Learning Center (KLC).

The development of the KLC is one of the important breakthroughs to support the development of human resources in the field of state finance, especially in supporting the FETA BPP program, which plays a full role in the Ministry of Finance's transformation of the journey. The institutional arrangements and business processes of BPPK are carried out through efforts to formulate a fit-for-

purpose organization design that will be achieved through the design of a "corporate university". In KEP-1162/PP/2015 on the BPPK Strategic Plan for 2015–2019, corporate university became one of the directions of FETA policies and strategies explained in point 9, namely the development of knowledge management for education and training needs directed to become a major part in the development of the Ministry of Finance's knowledge management system. The explanation in this strategy is related to the most important elements in establishing a corporate university, which consists of knowledge management and learning organizations.

The implementation of an information system in an organization certainly needs to be evaluated. The evaluation aims to determine whether the system is in accordance with the goals set by the organization and fully supports the performance of the organization, in this case related to the achievement of the BPPK's vision and mission, the implementation of a strategic plan, and the projected success of corporate university implementation in the Ministry of Finance. Evaluation of an information system is also needed to find out the main factors that influence the success and acceptance of the application of information systems as revealed by Yusof et al. (2008), Shaw (2002), Despont-Gros et al. (2005), and Schaper and Pervan (2007) in Mohamadali and Garibaldi (2010), "Since the success or failure of system implementation largely depends on user acceptance of technology, much research has been carried out to identify those critical factors that influence user acceptance."

There are many models that can be used in evaluating information systems, some of which are the success models of DeLone and McLean Information Systems, the Unified Theory of Acceptance and Usage of Technology (UTAUT) models, and the Human-Organization-Technology Fit conformity model (HOT-Fit). Because the scope of government has characteristics that are different from the scope of higher education, an evaluation model that is tailored to the characteristics of government training institutions is needed (Pamugar et al., 2014). The evaluation model is an integration model consisting of a combination of UTAUT, DeLone and McLean, and HOT-Fit models that the researcher used as an analysis model in this study.

2. Objectives

The objectives of this research were to conduct the following: 1) the testing of the impact of human factor, technology, and organization as part of system preference use; 2) the testing of the impact of technological factor on user satisfaction; 3) the testing of the impact of system using preference on user satisfaction; and 4) the testing of the impact of the use of the system on net benefit.

The main objectives of this research are the following: 1) to examine the influence of human, technological, and organizational factors on the intention to use the system; 2) to test the effect of intention to use the system on user satisfaction; 3) to examine the effect of intention to use the system on net benefits; 4) to examine the effect of user satisfaction on net benefits; and 5) to test the suitability between human, technological, and organizational factors.

METHOD

1. Population, Sample, and Research Data Collection Technique

The population of this study was the users of the Kemenkeu Learning Center (KLC) of the Ministry of Finance, who were participants of the training and used the KLC information system. The training participants came from three training centers, namely the Public Finance Training Center, the Tax Training Center, and the Budget and Treasury Training Center. The distribution of these participants can be considered as representing the user units in the IRB because training participants from the Public Finance Training Center and the Budget and Treasury Training Center were from various agencies within the Ministry of Finance. The population consisted of 1,020 people. According to Isaac and Michael (1981) in Sugiyono (2016), for a population of 1,020 people with an error rate of 5%, a sample of 255 people is needed. Sampling was carried out by purposive sampling technique. This technique bases the selection of sample on certain characteristics that are considered to have a relationship with the characteristics of the population previously known. The sampling process was based on groups, regions, or groups of individuals through certain considerations that were believed to represent all existing analysis units.

The types of data to be used in this study include the following:

- a) Primary data, which were the data obtained directly from the actual place of occurrence of the event. The primary data were obtained by conducting direct observations, namely observing the work steps and operation of the KLC information system and surveying users by using an instrument in the form of a questionnaire with a Likert scale.
- b) Secondary data, which were the regulation enacted by the head of FETA, journals, books, regulations, and other related literature. Against these secondary data a literature study was carried out by reading and quoting, both directly and indirectly, the literature that was directly related to the research variables.

2. Variables and Operational Definitions of Research Variables

In this study the research variables were divided into latent/construct variables and manifest/observed variables which are explained as follows:

a. *Latent/construct variable*

A latent/construct/unobserved variable is a variable that cannot be measured directly and requires several indicators. There are two types of latent variables, namely endogenous latent variables (dependent) and exogenous (independent) latent variables. An endogenous or dependent variable can be an independent variable that affects another dependent variable in one model, otherwise called mediating variables. In this study, the independent latent variables were Human Factor (HF), Technology Factor (TF), and Organization Factor (OF), while the dependent variables were Behavioral Intention (BI), User Satisfaction (US), and Net Benefit (NB). BI and US also served as mediating variables because BI and US were dependent variables which were independent variables for US and NB.

b. *Manifest/observed variable*

Manifest/observed variable is a variable that can be directly measured. A manifest variable is used as an indicator for latent variables. This manifest variable is manifested by questions to respondents with a Likert scale. In this study there were nine manifest variables, namely Performance Expectation (PE), Effort Expectation (EE), Partner Influence (PI), Information Quality (IQ), Service Quality (SQ), System Quality (SYQ), Facilitating Condition (FC), Top Management Support (TS), and Organization Support (OS).

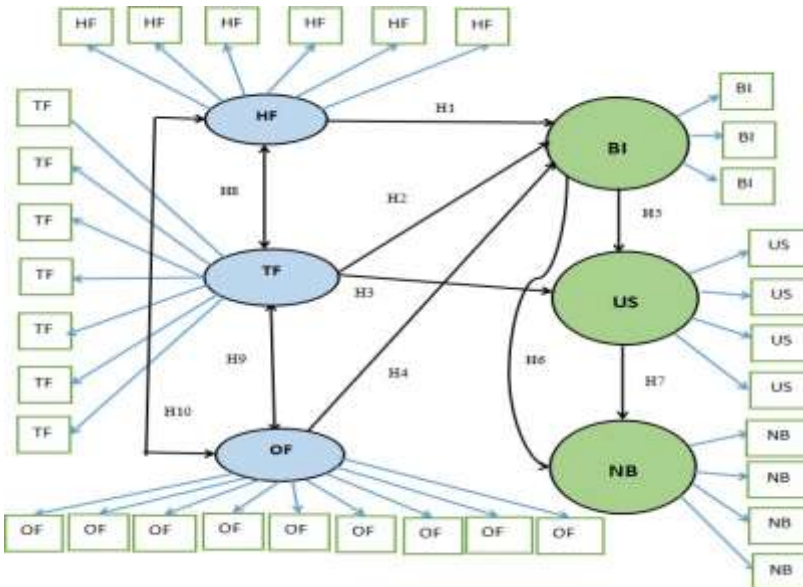
3. Hypotheses and Research Model

Based on the theoretical description of the integrated model, the research hypotheses formulated are as follows:

- H1: Human factors, namely performance expectations, business expectations, and the influence of coworkers, have a positive and significant effect on the intention to use e-learning SI.
- H2: Technology factors, namely information quality, service quality, and system quality, have a positive and significant effect on the intention to use e-learning SI.
- H3: Organizational factors, namely the condition of facilities, leadership support, and organizational support, have a positive and significant effect on the intention to use e-learning SI.

- H4: Technology factors, namely information quality, service quality, and system quality, have a positive and significant effect on user satisfaction with e-learning SI.
- H5: The intention to use e-learning SI has a positive and significant effect on user satisfaction with e-learning SI.
- H6: The intention to use e-learning SI has a positive and significant effect on net benefits.
- H7: e-learning SI user satisfaction has a positive and significant effect on net benefits.
- H8: There is a relationship between human and technological factors.
- H9: There is a relationship between technological and organizational factors.
- H10: There is a relationship between human and organizational factors.

Based on the hypotheses formulated, we set the research model as follows:



Source: Processed from previous research

Fig. 1 Research Model

1. Research Phase on Structural Equation Model

According to Ghozali and Fuad (2014), there are several stages in analyzing CB-SEM. These stages are model conceptualization, compilation of flowcharts, model specifications, model identification, model estimation, model evaluation, and model specification. In this study, the conceptualization stage of the model, preparation of the diagram, and model specifications were not carried out again because they were based on previous research studies.

a. Model identification

At this stage the information obtained from the data was tested to determine whether it was enough to estimate the parameters in the model. This stage was undertaken to find out whether the model built with the collected empirical data had unique values or not. If the model does not have a unique value, the model cannot be identified. The reason is that empirical data are not enough to produce a unique solution in calculating the estimated model parameters.

b. Estimated model

This study used the estimation of the Maximum Likeness (ML) model with the expectation that ML can produce the best parameter estimation if the data used meet the multivariate normality assumption. The weakness of ML is that if the data used number more than 400, the test results will be very sensitive.

c. Model evaluation

This stage aimed to evaluate the overall model, whether the model had a good fit between the data and the model or not. In this stage three tests were carried out, namely the overall fit model, measurement fit model, and structural model.

RESULTS

1. Descriptive Analysis of Respondents

Respondents in this study were training participants who used the KLC information system while attending the training. The distribution of the questionnaires was done online. The distribution of questionnaires was conducted from November 6 to November 17, 2017. The online questionnaire distribution method was chosen because most respondents (training participants) came from outside the city, so it was not possible to distribute the questionnaires directly. The questionnaires were distributed to all respondents registered as training

participants via email. The number of respondents who returned the questionnaires was 279 people and all of the results of these responses were used in this study. This number has exceeded the minimum sample size required by Isaac and Michael (1981) in Sugiyono (2016) for a population of 1,020 people, namely 255 respondents. Before answering questions, respondents were required to fill in gender, final education, work years, and age data.

2. Test Results for Reliability and Convergent Validity

Table 1: Test Results for Reliability and Convergent Validity

<i>Variable</i>	<i>SLF</i>			<i>Cr > 0,7</i>	<i>Ave ></i>	<i>Description</i>
HF	4.33	3.15	18.74	0.92	0.53	Reliable and
TF	6.74	4.57	45.43	0.93	0.46	Reliable and Not
OF	6.58	4.88	43.29	0.95	0.54	Reliable and
BI	2.74	2.51	7.51	0.97	0.83	Reliable and
US	3.27	2.70	10.69	0.94	0.67	Reliable and
NB	3.60	3.24	12.96	0.97	0.81	Reliable and

Table 1 shows that all variables had met the reliability test requirements (CR). However, to test convergent validity in the form of AVE values, there was one variable, namely Technology Factor (TF), that did not meet the requirements because it had a value below the requirement ($0.46 < 0.50$). In Lisrel, if one of the variables does not meet the required AVE value, so that the model is not fit, there are two solutions provided (Ghozali and Fuad, 2014). First, researchers can make modification indices, either through adding paths or connecting two error indicators. The second alternative is to issue an indicator that has a standardized loading value of less than 0.50 or the smallest value. In this case, the researcher chose to take the second alternative. Modification indices were avoided by the researcher because every improvement through modification indices must be supported by theory, or in other words, repairs may not solely be made to get a model fit and a good loading factor without theoretical support. Next, the researcher made improvements to the model by removing some of the indicators/statements contained in the extract. Indicators/ statements that were omitted were indicators that had the smallest number of loading factors among indicators in one construct, in this case FC2, SYQ1, SYQ2, and SYQ4 indicators.

3. Overall Test Fit Model (Refinement)

Table 2
Overall Test Fit Model Results from Model Refinement

Criteria	Cut off	Value	Desc.
Absolute			
Chi square	P > 0.05	0.00	Poor fit
GFI	> 0.90	0.77	Marginal fit
RMSEA	< 0.08	0.057	Good fit
RMR	< 0.05	0.044	Good fit
Incremental			
TLI atau NNFI	> 0.90	0.99	Good fit
NFI	> 0.90	0.97	Good fit
AGFI	> 0.90	0.73	Marginal fit
IFI	> 0.90	0.99	Good fit
CFI	> 0.90	0.99	Good fit
Parsimoni			
PGFI	0.6 - 0.90	0.66	Good fit
PNFI	0.6 - 0.90	0.89	Good fit
ECVI	<i>saturated and independence</i>		Marginal fit
CAIC	<i>saturated and independence</i>		Good fit
AIC	<i>saturated and independence</i>		Marginal fit

For the decision to eliminate some indicators/statements in the variable Technology Factor (TF), the researcher then re-tested the model. Based on the results of the test, the model improvement could be identified. This is indicated by the appearance of the path diagram. After the model could be identified, the researcher carried out the overall model fit test by referring to the values of statistical goodness of fit. The overall model fit test results are summarized in Table 2. The model can be concluded to have met the overall model fit test because each criterion of absolute, incremental, and parsimony had matched with the predicate of good fit.

4. Measurement Fit Model Test Results (Refinement)

The next step after the improvement model was said to be fit was to do a test to measure the convergent validity, namely reliability and validity (through Construct Reliability and Average Variance Extracted) as has been done in the previous full model. The test results can be seen in Table 3. All variables met the

convergent validity and reliability (CR values > 0.70 and AVE > 0.50). This shows that there was convergence between indicators to explain the existing construct. Based on the results of measurement reliability, the required reliability values were obtained. Thus, this research could be trusted and could reveal actual information in the field.

Table 3: Measurement Fit Model Test from Model Refinement

Variable	Standard Loading (SLF)			CR $> 0,7$	AVE $> 0,5$	Desc.
HF	4.33	3.15	18.75	0.92	0.53	Reliable and Convergent
TF	4.98	3.56	24.80	0.92	0.51	Reliable and Convergent
OF	6.01	4.56	36.12	0.95	0.57	Reliable and Convergent
BI	2.74	2.52	7.51	0.97	0.84	Reliable and Convergent
US	3.25	2.68	10.56	0.93	0.67	Reliable and Convergent
NB	3.60	3.24	12.96	0.97	0.81	Reliable and Convergent

The next step was to test the discriminant validity by comparing AVE with the square of correlation. A construct is said to have the discriminant validity if the AVE value is greater than the square of the correlation between constructs. The results are as follows:

Table 4: Test Results for Discriminant Validity

	BI	US	NB
BI	0.84		
US	0.43	0.67	
NB	0.45	0.59	0.81

The results of the testing for discriminant validity can be seen in Table 4. The values in Table 4 show that all AVEs were greater than the square of correlation.

This proves that the relationship between constructs was weak, or in other words, the three constructs could indeed be distinguished from one another (discriminant).

5. Test Results for the Structural Model

In Figure 2, it can be seen that there was a relationship that had a t-value between -1.96 and 1.96, namely the t-value of the relationship between Technology Factor (TF) and Behavioral Intention (BI) (0.07). This means that the influence from TF on BI was not significant. Meanwhile, the relationship between other variables had t-values of more than 1.96, which means that there were significant influences between these variables (HF and BI, OF and BI, TF and US, BI and US, US and NB, BI and NB).

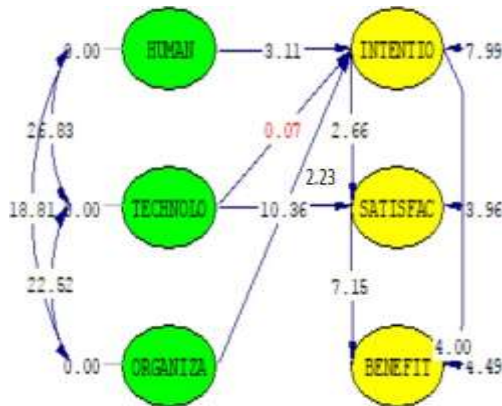


Fig. 2 Structural Model T-Value

Figure 3 shows the gamma values between variables. When viewed from the output, there was no negative gamma value. The gamma value for HF-BI was 0.47; TF-BI 0.02; TF-US 0.77; OF-BI 0.27. This can be interpreted that the effect of each variable on the other variables was positive. From the standardized/gamma value, we can also know that from the three independent variables, HF had the biggest influence on BI, TF had the biggest influence on US, and US had the biggest influence on NB. The arrows in Figure 3 were only one-directional. There were no arrows that were reciprocal between BI, US, and NB. This shows that the relationship that occurred was a one-way relationship to the causality of the recursive model. Meanwhile, the two-way relationship on the left shows the

correlation between the independent variables. So, according to figure IV.7, the correlation value between HF and TF was 0.85, the correlation value between HF and OF was 0.75, and the correlation value between TF and OF was 0.81. Overall, the correlation value between HF and TF (0.85) was bigger than the correlation values between other independent variables.

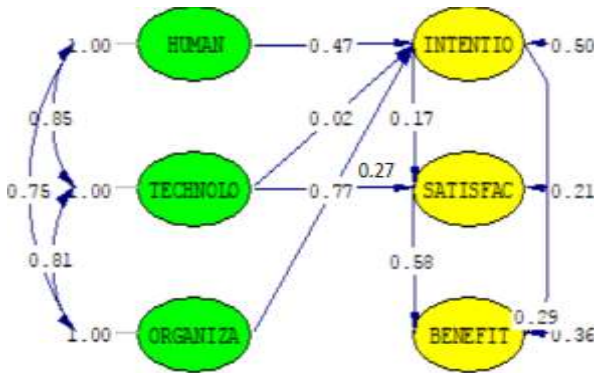


Fig. 3 Standardized Model

Figure 4 describes the structural equations in the research model. The values of R^2 of the resulting equation are as follows:

- 1) The value of R^2 in equation (1) was 0.50 or 50 percent. This explains that the three exogenous variables in the study, namely Human Factor, Technology Factor, and Organizational Factor, contributed 50 percent to forming Behavioral Intention, while the remaining 50 percent was influenced by other variables that were not explained in this study.
- 2) The value of R^2 in equation (2) was 0.79 or 79 percent. This explains that Behavioral Intention and Technology Factor contributed 79 percent to forming User Satisfaction, while the remaining 21 percent was influenced by other variables not explained in this study. A positive relationship between Behavioral Intention and User Satisfaction shows that when users increased their use of the information system, their satisfaction with the information system would increase by 0.64 or 64 percent.

$$\text{INTENTIO} = 0.47 \cdot \text{HUMAN} + 0.016 \cdot \text{TECHNOLO} + 0.27 \cdot \text{ORGANIZA}, \text{Errorvar.} = 0.50, R^2 = 0.50$$

(0.15)	(0.22)	(0.12)	(0.063)	(1)
3.11	0.070	2.23	7.99	

$$\text{SATISFAC} = 0.17 \cdot \text{INTENTIO} + 0.77 \cdot \text{TECHNOLO}, \text{Errorvar.} = 0.21, R^2 = 0.79$$

(0.066)	(0.074)	(0.052)	(2)
2.66	10.36	3.96	

$$\text{BENEFIT} = 0.29 \cdot \text{INTENTIO} + 0.58 \cdot \text{SATISFAC}, \text{Errorvar.} = 0.36, R^2 = 0.64$$

(0.073)	(0.081)	(0.080)	(3)
4.00	7.15	4.49	

Fig. 4 Structural Equation

Based on the results of the study, some conclusions can be taken as follows:

Code	Hypothesis	Decision
H1	Human factors, namely performance expectations, business expectations and the influence of coworkers have a positive and significant effect on the intention to use SI e-learning.	Accepted
H2	Technological factors, namely information quality, service quality, and system quality have a positive and significant effect on the intention to use SI e-learning.	Rejected
H3	Organizational factors, namely the condition of facilities, leadership support, and organizational support have a positive and significant effect on the intention to use SI e-learning.	Accepted
H4	Technological factors, namely information quality, service quality, and system quality have a positive and significant effect on user satisfaction of SI e-learning.	Accepted
H5	The intention of using SI e-learning has a positive and significant effect on user satisfaction of SI e-learning.	Accepted
H6	The intention of using SI e-learning has a positive and significant effect on net benefits.	Accepted
H7	SI e-learning user satisfaction has a positive and significant effect on net benefits.	Accepted
H8	There is a relationship between human and technological factors.	Accepted
H9	There is a relationship of compatibility between technological and organizational factors.	Accepted
H10	There is a relationship of compatibility between human and organizational factors.	Accepted

Fig. 5 Hypothesis Testing Result

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ELITE POLITICAL COMMUNICATION IN THE DIGITAL SOCIETY; A STUDY OF REGIONAL ELECTIONS IN 2018, SOUTH SUMATERA PROVINCE

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Abstract

This study explains the discourse of elite political communication and the feedback on social media from the public in the 2018 South Sumatera Election. The research method was the descriptive-qualitative method with a perspective of discourse criticism. Data collection was done by interview and documentation. The data of campaign materials disseminated on online media, such as Instagram and Facebook, were interpreted by a critical political discourse analysis. An analysis of community feedback on the campaign materials was carried out as a political discourse through social media.

The results of this study indicate the increasingly strong use of social media in the process of political communication. The media became a market instrument for discourse on the candidates' configuration, vision and mission, and programs offered by the candidates and their success team. They were increasingly aware of the importance of digital media due to their effectiveness and efficiency in communicating candidate activities, not only in the form of written texts, but also in the form of images and videos. The most widely used social media were Instagram and Facebook, on which candidates had thousands of followers. The community's responses were quite diverse, but in general, there were two types. First, it was positive response to both the candidates and the programs offered, particularly in relation to the road infrastructure construction and agriculture. Second, it was negative response, which was primarily aimed at the background of the candidates, such as the strengthening of dynastic politics, family problems, and educational background. Most responses came from urban communities because the access to social media was easier to them. Social media as an arena for elite political communication and the masses tended to be a discourse market but had not shown the practice of political communication that could substantially improve the quality of democracy. The programs offered by the candidates were more oriented towards infrastructure development, while human resource development was not prioritized. The research results also show that the media

team did not respond to comments from netizens. The reason was mainly not to cause more complex problems. But it seemed that the politicians, especially the media teams, were not ready to answer to critical voters.

Keywords: political elite, communication, digital era, social media, discourse market, election

INTRODUCTION AND OBJECTIVES

In 2018 South Sumatra was one of the regions that held direct elections. The third election in the reform era fought for the support of more than 5 million voters spread across 10 districts and cities. The area of South Sumatra forced the candidates and their success teams to develop more effective and efficient political communication with constituents. In this context, the right means of communication are needed so that the capacity of each candidate can be widely known by the public. Likewise, the work programs offered should be widely known and truly correlated with the interests of the community, that is, what needs to be communicated and, at the same time, dialogued, so that the voters can understand and are not mistaken in determining their political choices. Now is the era of digital media where people, especially urban society, use low-cost, easily accessible electronic and internet media more. Wherever they are, they can see information about prospective candidates and their activities, so it will be easy to also get references about candidate pairs and work programs through social media. Because social media is a jungle, and practically there are almost no rules in it (Fitch, 2009), social intelligence for utilizing the media is needed. If the use of the media is not managed or dealt with wisely, political actors will be defamed by the citizens. This is one of the important meanings of this research, so that elite political communication remains at the level of social norms in society.

Feedback is also needed to respond to the aspirations of the community, so that there is a match between the campaign programs offered with the problems in the society. In this context, it is important to look at the political languages of the campaign that were developed through social media, because language is a link between elites and the public. In this context, it is necessary to criticize the discourse of power relations through social media. Critical social theory teaches us that political discourse is closely linked to space politics (politics of space), as stated by Latif and Ibrahim (1996: 20–21). In the space of social media there is a practice of discourse of power by the political elite.

Besides, research about the patterns of political communication developed by the candidates should be conducted. It is also important to elaborate on the polarization of the response of the voters to the election itself and the candidates and the work programs offered. According to Firmansyah (2011: 315–316), before being used in public policy, data and information from the community need to be processed and analyzed so that good results can be obtained. Patterns, structures, and messages that are implied or explicit are also necessary. In this context, feedback is needed during the election political campaign.

Political imagery is displayed by elites in various political moments, especially in TV media (Taqwa, 2013). The role of the media greatly determines the image of a figure in his/her capacity as a public figure who is authoritative and favored by the people. According to Hiplunudin (2011), social networking media has a strong influence on politics, which has an impact on the political world as a whole from political parties, general elections, positioning of political parties and politicians, political marketing, political campaigns, and political communication, to imaging. Strengthening social media influence political life, for example, the victory of Barack H. Obama in the 2009 US Presidential Election. In a book titled *Communicator-in-Chief: Jarvis's 2010 Used New Media Technology to Win the White House* it is stated that the site for the Obama campaign organized more than one hundred fifty thousand activities, created more than thirty-five thousand groups, had more than 1.5 million accounts, and raised a fund of more than USD600 million from 3 million donors (in Hiplunudin, 2011).

Social media have indeed begun to be observed in the past two years. One of the supporters of Joko Widodo and Basuki Tjahja Purnama in the election of the DKI governor used YouTube to post videos of their creative campaigns (Ansari, 2014). According to Ansyari, the main challenge in utilizing social media is the loss of social status limits in the world of social media so that we do not know who is smart and who is not smart.

Social media is a jungle, and practically there are almost no rules in it (Fitch, 2009). If the challenge is not dealt with wisely, political actors will actually get scorn in cyberspace. This is one of the important meanings of this research, so that elite political communication remains at the level of social norms. The use of media needs caution because it also has a broad impact. The same thing was stated by Romualdi (2018) as follows:

"The use of social media as a political means must remain in the rules that are in accordance with the norms in society and also the laws that apply in Indonesia. Very often we encounter netizens who excessively support their political

champion by spreading hoaxes that smell of slander and even SARA aimed at political opponents. This became one of the elements that sparked the heat of political temperatures in Indonesia. Even insulting as being a culture in the world of social media.”¹

The use of social media accounts will increase social penetration. Referring to the terms, Altman and Taylor described that as an effort used to improve the ability to know and to be known by the people at large. According to Piliang (2009: 22), the world of politics is not only a place of physical and psychological neglect, but more importantly ideas, thoughts, and concepts. This is relevant to what was stated by Rusdiarti (203: 32), compiled from Bourdieu's thought, that every phrase conveyed by social actors, realize it or not, is a discourse that represents itself.

There is political communication according to Newcomb that every action is seen as a process of information transmission consisting of a discriminatory stimulus from the source of information to the recipient of information. Political communication can be defined as a communication process that has consequences for actions that are political in nature (in <https://pakarkomunikasi.com/unsur-komunikasi-politik>). The concept of political discourse refers to a general concept, namely a discussion of political issues. (<https://rebanas.com/kamus/politik/wacana-politik>).

Political communication is mainly played by political elites; even in the context of conflict it is dominated by elite interests (Taqwa, 2013: 226–227). That is why this research emphasizes elite communication with voters. The elites are governors and deputy governors candidates who have held political positions. An elite network has the potential to carry out social construction. Social construction, according to Ricoeur (2006), is a number of social texts that are often discussed or communicated by the dominant party to those who are subordinated through the media.

According to van Dijk (tt: 14), many political discourses are reflexive, so political campaigns will talk a lot about the candidate himself, about elections, and about the policies offered to voters. Here's the complete opinion of Dijk:

“In other words, much political discourse is reflexive. This is not quite trivial, because this reflexivity is not typical for educational, scholarly, or legal discourse. Thus, campaigning politicians will speak about themselves as candidates, about

¹ <https://indonesiana.tempo.co/read/118780/2017/11/06/kristoforusbagas/partisipasi-politik-di-era-digital>.

the elections, about voting for them, and the policies they promise to support when elected.”²

The relation of the political elite to the media has been proven in the last few decades in this reform era. The results of the study by Muzani et al. (2011: 437), for example, show that there is a significant relationship of political advertising of presidential candidates, including affection for the party. For example, there is a very strong, consistent relationship between affection for SBY, on the one hand, and Demokrat Party’s advertising or SBY’s own advertising, on the other hand.

Based on the description above, the focus of this research was on 3 things, namely the communication discourses of the political elite that were conducted through the utilization of social media by candidate pairs and their success teams, how the candidates compared the use of digital media, and how the society responded through digital media and feedback from the candidate and the success team.

RESEARCH METHODS

This research used a qualitative descriptive approach (Bungin, 2012: 68). It is relevant to the research that analyzed social media use as the media on which elites conducted political communication during the South Sumatera governor and vice governor election period. The secondary data collected consisted of the images and videos posted on the social medium used by the candidates (Instagram). The data collection was also conducted by interviewing the candidates’ social media team members. The units of analysis in this research were the governor and vice governor candidates. To analyze the phenomenon, a critical discourse analysis was carried out. Discourse analysis is commonly used in analysis of conversation on media (Bungin, 2012: 194-196; Eryanto, 2005).

RESULTS: USE OF SOCIAL MEDIA IN ELECTION AND THE COMMUNITY’S RESPONSES

Everything published on social media will certainly gain sympathy and attention from followers of social media. That was also the case with everything published on personal social media and official supporter accounts of the South Sumatera governor and vice governor candidates for the period 2018–2023. There

2

<http://discourses.org/OldArticles/What%20is%20Political%20Discourse%20Analysis.pdf>.

were 2 types of media used by candidates, namely Instagram and Facebook, but the most widely used one was Instagram. Social media became the main sources of research data. The discussion materials were mainly campaign materials to the constituents, the public response to the content on social media, and the feedback from the media team.

1. The Social Media Team of Herman Deru-Mawardi Yahya

The first governor and vice governor candidates, Herman Deru and Mawardi (HD-MY), were former regional heads of East OKU and Ogan Ilir, each for 2 periods. They had the motto "BERSATU SUMSEL MAJU." The social media most often used to campaign were Instagram and Facebook. Instagram was a platform where the success team created several Instagram accounts as a form of support for HD-MY as well as a platform for showing priority programs, vision, and mission. In the search section on the Instagram account there were 9 Herman Deru-Mawardi Yahya official accounts. One of the 9 accounts was the official account of Herman Deru (Hermanderu67), which had a blue check mark, meaning that the account had been officially verified by Instagram.

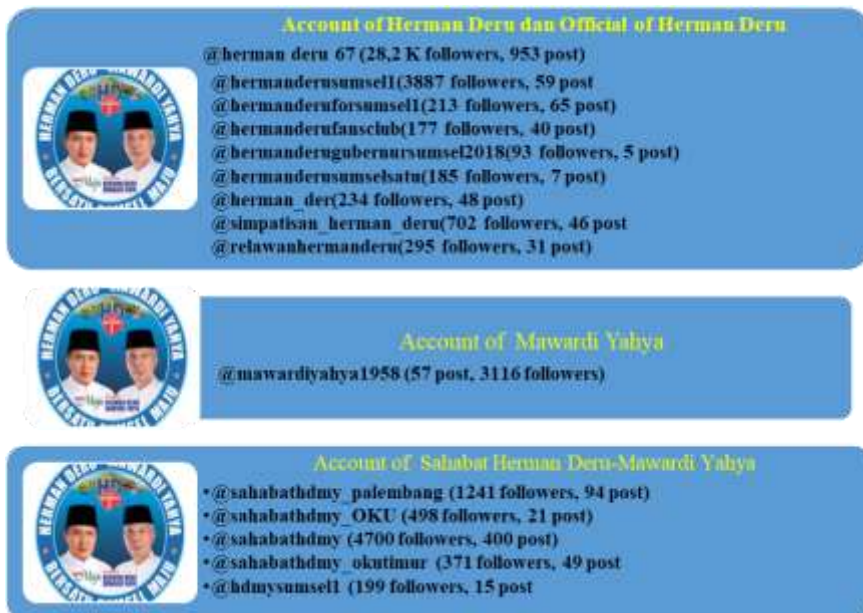


Figure 1. Instagram Support Accounts for HD-MY and Their Followers

Herman Deru's official Instagram account contained posts concerning HD-MY activities when campaigning in several regions before they were finally elected the governor and vice governor of South Sumatera. The content of the account was not only about the family and daily life of Herman Deru. During the campaigning period, Herman Deru and Mawardi Yahya often visited several areas in South Sumatera, such as Lahat, Lubuk Linggau, Oku Timur, Pali, Banyuasin, Baturaja, OKI, and Pagaralam.

The account @hermanderusumsell was managed by a media partner community. The flagship programs carried out by HD-MY were designed according to their slogan "BERSATU SUMSEL MAJU." In general, this candidate pair focused on developing road infrastructure, education, health, religion, rural areas, and public services. The complete programs were as follows:

- village development programs and village companion scholars;
- fixing infrastructure, repairing damaged roads, and building road access between regions;
- opening horizons of the people and building a village reading and Internet park;
- poverty alleviation, social assistance, capital assistance, and house renovation;
- running school for free;
- fostering religious life, building *tahfiz* houses, and implementing Quran teacher incentives;
- improving the market and downstreaming, plantation and agricultural products;
- improving health, providing free medical treatment, and ID card; and
- improving public transportation and directing coal transportation to special roads.

On Instagram people were encouraged to choose HD-MY as the governor and vice governor. The candidate pair number 1 also made a peaceful campaign declaration. On their Instagram account were some comments stating support, but there were also those who said they did not support HD-MY. Some Instagram account owners stated that they did not support HD-MY because of their involvement in a corruption case. There were also netizens who expressed their opinion that Herman Deru chose the wrong partner. This resulted in some of them giving no support to this pair and giving more support to Ishak Mekki.

Figure 2. Campaign Activities of HD-MY

Slogans related to the world of health also became the discourse of Herman Deru's campaign team: *Mens sano in corpore sano*, better to prevent than cure, let's exercise because "In a healthy body is a strong soul," take a leisurely walk with the people of Kenten Park, Palembang City. Herman also conveyed his vision and mission to farmers in the countryside while listening to their hopes for improvement in the agricultural sector so he would not only pay attention to the facilities in urban areas. "Together with the United States Sumatran Farmer Volunteers, Herman visited farmers in the fields directly to hear their hopes for improvements in the agricultural sector. Together with farmers, let us return the glory of South Sumatra to the National Food Barn which was announced in 2007."³

Table 1. Positive Comments and Negative Comments

Positive comments	Negative comments
<ul style="list-style-type: none"> ▪ The community hope that the statements expressed by Herman will roar at the campaign, and that at the beginning of the office, it will not be a "hoax" they make because they only wanted to be elected and win. ▪ The community ask them to actually check the condition of the region, especially the damaged roads in the village. ▪ Hopefully HD can protect the people, be honest, be trustworthy, be <i>fatolah</i>, and be blessed by Allah SWT. ▪ The winning team, we escort you to the village. We support you, Sir. ▪ We have choices from number 1 to number 4, so we compete in a healthy manner. We support heroes, who are important to us, to have a party of democracy and do not vilify each other. 	<ul style="list-style-type: none"> ▪ The public revealed that HD was wrong in choosing a partner (Mawardi Yahya). ▪ Mawardi Yahya was involved in a corruption case. ▪ I really want to choose you, but because the people closest to you are corrupt, I don't choose you. ▪ South Sumatra is better with Ishak Yudha. Let's choose number 3. ▪ Herman was able to set a record of Muri with the most discourses on home surgery in Indonesia. But he failed to make a road without a hole. ▪ We are not sure that South Sumatera will advance in the hands of you.

³ [#bersatusumselmaju#HDMY](https://www.instagram.com/bersatusumselmaju#HDMY)

2. The Social Media Team of Aswari and Irwansyah

The candidate pair number 2, Saifudin Aswari-Irwansyah (SA-Ir), who had the slogan SUMSEL BARU, had 8 Instagram accounts. These accounts were created to support the campaign process and to explain the activities and the programs offered. In addition to 78 Aswari accounts and their supporters, there were also 2 accounts of these two pairs, namely @Community_relawan_Aswari (Followers 80) and @Aswariuntuksumum (Followers 43).



Official Accounts of Aswari-Irwansyah

- @Aswaririvai.id (Followers 17,6k)
- @Aswari_rivai (Followers 13,2k)
- @Aswariadalahkito (Followers 1037)
- @Aswari_irwansyah (Followers 202)
- @Aswariuntuksumsel (Followers 325)
- @Asri.sumsel (Followers 199)
- @sahabat_Aswari_rivai (Followers 192)
- @sayangisumsel (Followers 254)

The image shows a blue rounded rectangle containing a photo of two men in suits shaking hands, with a large red number '2' and the text 'ASRI ASWARI-IRWANSYAH "Sumel Baru"' below it. To the right of the photo is a list of Instagram accounts and their follower counts.

Figure 3. Instagram Accounts of the Supporters of Aswari-Irwansyah and Their Followers

The responses of the public to the Instagram accounts dedicated to the governor and vice governor candidates varied greatly from positive to negative. The community reacted in various ways, starting from posting photos of candidates and campaign programs. Judging from the post number 2 that shows a picture of "New Hope of South Sumatra", many netizens responded according to the photos posted. Some other people commented that for the betterment of South Sumatra, it would be best to choose the candidate pair number 3, namely Mekki-Yudha. The community responded positively to the OKE OCE program and expected that the program could be realized and would be useful for the people.



Figure 4. Netizens' responses to Aswari-Irwansyah

The photo post which showed positivity also received good responses from the people who supported the South Sumatera governor and vice governor candidates. Not only millennials, parents also became Aswari's socialization priority. In another post, Aswari tried to strengthen his team's spirit of success when campaigning in the community by socializing about the program that he will realize if he is elected. However, the statement of positive goals that Aswari wanted to achieve received negative responses. Some people commented that they would choose candidate pair number 3 because they were more trustworthy unlike the candidate pair number 2, Aswari-Irwansyah.

A photo that was posted on Instagram shows Aswari and Irwansyah visiting a prison to give encouragement and promising that if they are elected, they will implement the OKE OCE program by providing training and assistance, so that when the prisoners return to the community, they will be ready and better. The activities carried out by Aswari-Irwansyah received some negative responses from some people, who said that the ones the people of South Sumatera would choose had to be those who cared and came up with creative programs like other candidates, Ishak Mekki-Yudha.

3. The Social Media Team of Ishak Mekki-Yudha Pratomo

The third candidate pair, Ishak Mekki and Yudha Pratomo (IM-YP) had 3 official Instagram accounts (@officialishakyudha, @ishakyudha, and @sumsellebihbaik) and an official support account, @berita_ishakyudha3. In addition to the official Instagram accounts and support account, both partners had private Instagram accounts: @ishakmekki.id for Ishak Mekki and

@yudhamahyuddin for Yudha Pratomo Mahyuddin. While on Facebook, they had an account that supported them, namely Ishak Mekki-Yudha. In addition to the official support accounts for the candidate pair, the two candidates had personal Facebook accounts, Ishak Mekki and Yudha Pratomo Mahyuddin. The names of both of these personal Facebook accounts matched their own names. The number of posts and followers of the personal Instagram accounts, official Instagram accounts, and Instagram support accounts of Ishak Mekki-Yudha Pratomo are shown in the figure below.



Figure 5.
Instagram Accounts Supporting the Candidate Pair Ishak-Yudha and Their Followers

After being identified, it seemed that the most dominant social media account of Ishak and Yudha was @ishakmekki.id, which had more than 10 thousand followers. Both Ishak and Yudha also had personal Facebook accounts and Facebook partner Facebook support accounts. Based on some of the photos uploaded, Ishak Mekki made a visit to the homes of some residents. He also conducted a campaign at a market, in which he bought avocados as gifts for his grandchildren. This caring and loving granddaughter would then upload photos on Instagram on February 21, 2018, showing that Ishak Mekki visited the house by crossing the river. There were many social media accounts for the candidate pair number 3 because this pair was made use of Yudha Pratomo's expertise in information technology. Some more photos were uploaded on the Instagram account on February 21, 2018, showing Ishak Mekki making a visit to the homes of people across a river. According to the caption of the photos, Isaac Mekki was a man excelled at swimming. From the Instagram account, it is also known that Ishak Mekki was in touch with the Palembang Online Driver Association community. In a discussion with the community, he told the researcher that discussion was a tradition of the people of South Sumatra. In such discussion they sit together to make a decision.



Figure 6. Campaign Activities of Ishak-Yudha

The posts on Ishak Mekki's personal account were not monotonous. The captions for the photos uploaded contained recent popular expressions, for example, "Did you have a cup of coffee yet? Good morning." It is a greeting for his personal Instagram followers. It has become a tradition that when it is an election period, candidates will be busy visiting the community to win their support. Various methods can be carried out, for example, holding a people's party, visiting people's homes, or stopping by some street shops. In addition to the photos of himself with his family and the photos of his daily activities, Ishak Mekki also uploaded the photos of him visiting some places to keep in touch with the community to win their support on his Instagram account. He also inaugurated the Palembang Ojek Online Driver Association, gathered with farmers, and socialized school programs and free medical treatment for mothers.⁴



Figure 7. Public's Comments on Ishak Mekki's Instagram⁵

Under the posts on his personal Instagram account, Ishak Mekki's media team invited the followers to leave comments. The account @andrethecurator commented, "If you are elected, please use the budget carefully. (Please apply) maximum IT-based transparency." The comment implies that the community highly expected that if Ishak and Yudha are elected as the governor and the vice governor for the period 2018–2023, they should manage the local budget carefully and transparently through information technology-based management.

A number of positive responses from the community to these candidates include:

- Hopefully you can be trustworthy and realize all programs if you are elected.
- The public hope that the statements expressed by Ishak-Yudha can be realized.
- Hopefully Ishak Mekki-Yudha Pratomo will be able to protect the community, be honest, be trustworthy, and be blessed by Allah SWT.
- There are netizens who comment that the programs promised by Ishak-Yudha are proven.

⁵ Source: private Instagram Ishak Mekki @ ishakmekki1

Meanwhile, no negative response was found on all of Ishak-Yudha's social media.⁶

4. The Social Media of Dodi Reza-Giri Ramanda and the Community's Responses

Both Dodi and Giri had politician family backgrounds. Dodi is a child of the governor of South Sumatra, Alex Nurdin, and while he was nominated, he was still holding the position of the regent of Muba. Meanwhile, Giri is the son of a senior politician, Nazaruddin Kiemas, a member of the People's House of Representatives (DPR) from the Indonesian Democratic Party of Struggle. At the time of his nomination he still occupied a chair in the Regional House of Representatives (DPRD) of South Sumatra. The social medium mainly used by this pair was Instagram, and they had both personal accounts and official joint account. Support for this candidate can be seen from the number of followers, which reached tens of thousands, especially for Dodi's personal account which had 42k followers.

Dodi Reza Alex Noerdin	Giri Ramanda Kiemas	Joint Account
<ul style="list-style-type: none"> • Dodi Reza Alexnoerdin Followers 42.5K • Dodi4sumsel Followers 2698 	<ul style="list-style-type: none"> • Giri Ramanda Kiemas Followers 3912 • Timsesgiri Followers 143 	<ul style="list-style-type: none"> Kawan.dodi.giri Followers 2380 Rela_giri Followers 1954 Dodigiri followers 101

Figure 8. Support for Dodi Reza-Giri Ramanda Accounts

The people who filled out the comment columns of the 4th pair, Dodi Reza-Giri Ramanda, showed their support for them. The community also expressed their hope that the visits by candidate pairs 4 will continue beyond nomination period into their office period if they are elected and that they will continue interacting with the people and hearing their complaints. Others responded with a wish for the pair's success and 4-finger greeting signaling support for the pair. Some netizens left comments on @kawandodigiri with 4-finger greeting, but some other commented that it was the candidate pair number 3, Ishak Mekki-Yudha, that was

⁶ There are no negative comments in the Ishak-Yudha account, there is a possibility that it has been filtered (filtered) in advance by the admin of these accounts, so that when collecting data, there are no negative comments at all on that account

a better choice. This shows that there were supporters of other candidates commenting on their accounts.



Figure 9. Community's Responses to Dodi-Giri

One of the work programs carried out by Dodi-Giri was road construction and road quality improvement. Regarding this, a community member responded by saying that the roads are in a damaged state due to the lack of improvement by the government. Uwais further complaint in the commentary column about frequent blackout and poor signal strength.



Figure 10.
Community's Responses to Candidate Pair Number 4,
Dodi Reza-Giri Ramandha

With regard to their posts, the community gave appreciation to Dodi Reza and Giri Ramandha because they assumed that the campaign carried out by this pair gave a different nuance, in that they seemed to appreciate other candidates more. One netizen commented that he was disappointed because he considered Dodi to be unable to keep his promise to fix Muba District, which he had just led for several months. When Dodi was nominated a governor, he was only serving as the Regent of Musi Banyuasin for 11 months. This issue was mostly responded negatively by the netizens because he is the son of Alex Nurdin, the Governor of South Sumatra for 2013–2018.

CONCLUSION

Candidates' political communication discourse starts from their profile as elites with a number of political experiences, vision and mission, and priority programs. Of the 8 candidates, 5 were former or incumbent local politicians. Only Yudha had never held a political position. The political discourse raised through media built political optimism in the community to progress with unity. For example, Herman Deru-Mawardi Yahya's came with the slogan, "BERSATU SUMSEL MAJU", while Aswari-Irwansyah had a vision to build a smart and prosperous South Sumatera community with the slogan "SUMSEL BARU." Besides OKE-Océ program, Aswari-Irwansyah's priority programs included the programs in the education, health services, and teacher redistribution sectors. The vision of Ishak Mekki-Yudha Mahyuddin was to make South Sumatran people independent, smart, advanced, and equal based on local potential and local interaction, while the mission was to develop infrastructure with the slogan "SUMSEL LEBIH BAIK." The slogan of Dodi-Giri was "DUA TAHUN BISA," which was about development in all fields and all walks of life. These are the discourse of elite political communication to the public in the 2018 local election. The discourse of political communication was created by the success teams and was promoted through social media.

As a comparison of programs that were preached through the media, there were sides to the similarities and there were sides to the differences. The program similarly communicated to the public by all candidate pairs was the development of village road infrastructure, business capital, health care, poverty alleviation, and free schools. Herman-Mawardi's program focused on independent village development, capital assistance, housing renovation, fostering religiosity, development of *tahfiz* houses, Quran teacher incentives, public transportation

improvement, and directing coal transportation to special roads. Aswari-Irwansyah program focused on entrepreneurship development of the community in South Sumatra and shelter building. Meanwhile, Ishak Mekki-Yudha's programs included reservoir revitalization and irrigation, IT-based budget transparency improvement, development of a complaints system through online public service, and combat against corruption, collusion, and nepotism. Differently, Dodi Reza-Giri Ramanda's programs included development of industrial estates towards special economic zones, creation of 300 thousand jobs, and replanting of oil palm and rubber.

The community's (netizens) responses and attitudes to the candidate pairs and the social media teams also varied. There were those who supported and gave positive responses. Some were more neutral, but there were also those who responded negatively or rejected, even criticized, the candidate pairs. The candidate pair Herman Deru-Mawardi Yahya received negative responses due to Mawardi's fake diploma issue and his son's drug scandal. The candidate pair Aswari-Irwansyah also received negative responses for some problems, such as coal mining problems and problems in Lahat. Dodi was also questioned by netizens because it was only for less than a year he served as the Regent of Muba before he attempted to gain a higher position. He also stumbled on the issue of dynastic politics and was considered greedy because his parent (Alex Noerdin) was still serving as the incumbent governor of South Sumatra at that time.

Most of the feedback on the social media posts came from urban communities because the access to social media was easier to them. Social media served as an arena for elite political communication, and the public tended to be a discourse market. However, there has been no practice of political communication that can substantially improve the quality of democracy in Indonesia. The programs offered by candidates were more oriented toward infrastructure development, while human resource development was not prioritized.

The research results show that the media teams of the candidates did not respond to comments from netizen, especially those regarding crucial issues. The main reason was that they avoid causing more complex problems. So, even in the digital era, it seemed that politicians, and especially their media social teams, were not ready to answer to the critical voters.

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INDUSTRY 4.0 ERA: AN ANALYSIS OF THE IMPLEMENTATION OF INDONESIAN MANUFACTURING MANPOWER INDUSTRY

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Abstract

The transformation of the agrarian-based economic sector makes the industrial sector the leading sector in the economy. Industry 4.0 is currently being developed. It aims to realize a model that can be used globally as a reference for implementation in various types and levels of industry. The development of the manufacturing industry sector is almost always the top priority in developing countries' development plans. The manufacturing industry sector is considered as the leading sector that drives the development of other sectors. This study aimed to determine the extent of the influence of labor costs, export orientation, and import content on employment. The data used were the secondary data obtained from the World Bank over the observation period 1991–2015, the analysis tool used was SPSS 16, and the research method used was the multiple linear regression method.

Keyword: labor, manufacturing industry, Indonesia

INTRODUCTION

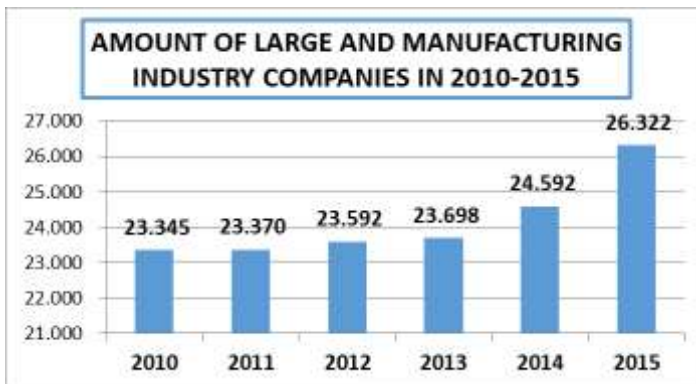
Beginning with the discovery of a steam engine that drove the industrial revolution, also known as industry 1.0 in 1784, the industrial revolution continued to develop from then on. Industrial revolution caused a shift in the use of human power, which was replaced by mechanical technology. Industry 1.0 was developed until the end of the 19th century. Later in the early 20th century it was replaced with industry 2.0, which was mass production using electricity. In the early 1970s the industry 3.0 emerged with the introduction of the use of electronic devices and IT for automated manufacturing processes. This automated manufacturing process began to replace operators' tasks with machines and robots. The fourth industrial revolution or industry 4.0 occurred in 2012 with the Cyber-Physical production process. Industry 4.0 leads to an internet-based or wireless network manufacturing

process. Technology is used not only for communication, but also for remote control and control (Wahlster, 2012).

Economic growth is a problem in the long run. It is an important phenomenon experienced by the world only since the past two centuries. In that period the world has experienced very real changes when compared to the previous period. In this period the situation has been very different. The ability of humans to go to the moon and to realize sophisticated computers is a real example of how far humans have progressed. This, as revealed by Schawab (2017), explains that industrial revolution 4.0 has fundamentally changed human life and work.

According to Arsyad (2010: 442), the industrial sector acts as a sector leader. The development of the industrial sector will spur and encourage the development of other sectors, such as, the agricultural sector and the service sector, so that later it will cause widespread employment opportunities that will increase people's income and demand (purchasing power). The economy is growing rapidly. The development of the manufacturing industry sector is almost always the top priority in developing countries' development plans. The sector of the manufacturing industry is considered to be the leading sector that encourages the development of other sectors, such as the service sector and the agricultural sector. The development process requires economic growth followed by changes in the economic structure: changes from agriculture to industry or services and institutionalization, both through regulation and institutional reform (Kuncoro, 1997: 17). The following are data from manufacturing industry companies in 2010–2015.

Table 1.1 Manufacturing Data

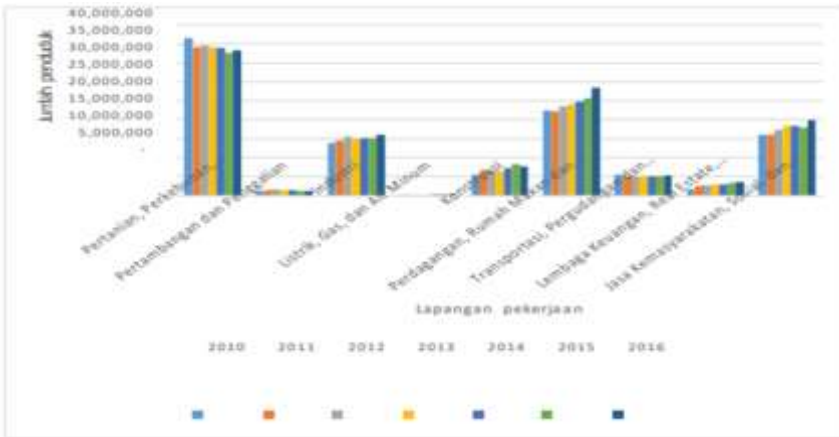


Source: Statistics Indonesia, processed 2018

One factor of the company GDP in the manufacturing sector is the number of large-/medium-scale businesses/companies that have their main activities in the sector. Table 1.1 shows that the number of large and medium industrial companies in 2010–2015 constantly increased. The largest increase in the number of manufacturing industry companies (7.31 percent) occurred in 2015, while the lowest growth (0.11 percent) occurred in 2011. In 2012, 2013, and 2014 the number of large and medium manufacturing companies increased by 0.95 percent, 0.45 percent, and 3.51 percent, respectively.

The Cobb Douglas theory explains that a country's economic growth comes from an increase in labor, capital, and technology input. Increasing economic growth will create output of employment. The existence of jobs encourages increased labor input and create prosperity in economic development. Therefore, a country's economic growth is often a top priority in the development process because it triggers the growth of absorption of production input, namely labor. Growth in the manufacturing industry is also influenced by the capital invested in the sector. Research conducted by Mishra (2006) shows that the capital invested in the manufacturing industry affects employment and can increase industrial growth. The presence of investment capital is one of the cornerstones of the development strategy. However, capital-intensive industries make investment tend to be used for capital purchases in the form of sophisticated machinery so that, in the end, the industry does not use much labor. The increase in investment in an industry will increase employment. This is because by increasing investment, it will increase the number of companies in the industry. Increasing the number of companies will increase the amount of output that will be produced so that employment increases and unemployment decreases (Matz and Usry, 2003).

In addition to employment as an indicator of economic success, gross domestic product (GDP) is one indicator of economic growth. Gross domestic product is one measure of a country's economic development and growth that can be seen from the country's national income. GDP is defined as the total value or market price of all final goods and services produced by an economy for a period of time, usually 1 year (Muana Nanga, 2001). GDP is an important indicator to determine the economic condition of a country and an indicator of the size of the contribution of the business sector, especially the industrial sector. If GDP shows an increase, it can be said that the economy of current year is better than that of the previous year. However, an increase in GDP without additional employment opportunities will increase inequality in the distribution of additional income, then create an economic growth in conditions of increasing poverty.



Source: Social and Population Statistics Indonesia, processed

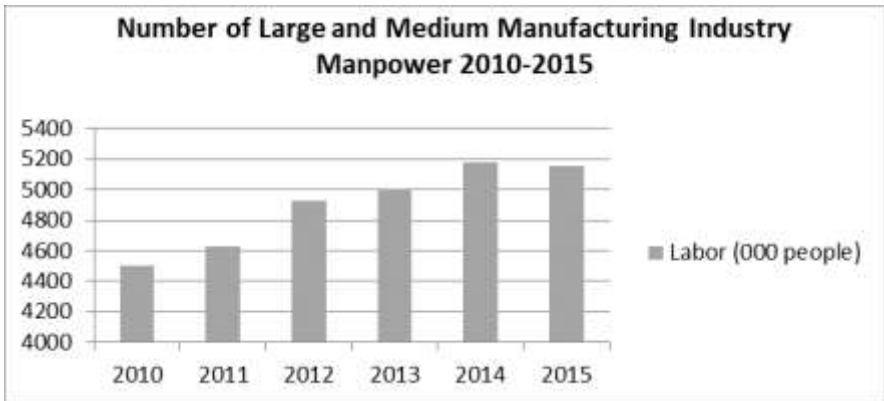
Figure 1.1
Labor Absorption according to Main Employment Field, 2010–2016

From figure 1.1 we can conclude that the workforce in Indonesia was dominated by jobs in the agricultural, plantation, forestry, and fisheries sectors with a higher number of labor absorption compared to other sectors, namely an average of 33 million workers, but it should be underlined that from 2010 to 2016 the employment of the agricultural sector experienced a downward trend. This is in contrast to the manufacturing sector. The manufacturing industry sector ranked fourth in employment (the average number of workers from 2010 to 2016 reached 15 million), but the trend of the manufacturing industry from year to year has increased labor, meaning that there is an increase in employment in the manufacturing sector. The decline in the agricultural sector and the lack of employment opportunities in the manufacturing sector can result in unemployment in Indonesia.

The export analysis of the Indonesian foreign trade sector has so far dominated over the import analysis. On the one hand, this can be understood because exports are the only mainstay of foreign exchange producers coming from their own strength, so developing countries have an interest in mastering the knowledge of these foreign exchange earners. Import analysis should get offset by the analysis of exports because imports are a reflection of the sovereignty of a country's economy about whether domestically made goods and services are still masters in their own country. A country has a deficiency (lack/failure) in carrying out the

production of goods and services for the consumption needs of its population. There are two types of deficiency that can occur, namely quantity deficiency and quality deficiency. Importing for reasons of quantity deficiency is still reasonable. The main factors usually are real natural factors, so the solution is also clear. In this case the goods and services are seen from their functions or uses. Absorption of labor in the manufacturing sector in Indonesia was subject to the scrutiny of the authors because an increase in the population of Indonesia in recent years has caused the workforce to increase.

Table 1.2 Absorption of Labor.



Source: Statistics Indonesia processed, 2018

The labor absorption rate of large and medium manufacturing industries was obtained from the value added numbers divided by the number of workers. In table 1.2 it can be seen that the number of labor in the manufacturing industry ranged from large to medium in the period 2010–2015 and constantly increased. The graph shows a positive trend. Labor productivity figures in 2011 rose by 11.10 percent compared to that in 2010 as well as 2012, 2013, and 2014, which rose by 6.40 percent, 25.97 percent, and 10.63 percent, respectively, compared to previous years. In 2015, it was estimated that the labor productivity figure would be Rp382.26 million/person, an increase of 17.22 percent.

This triggers unemployment due to lack of jobs and can hamper economic development. The industrial sector as the biggest contributor to GDP in Indonesia has been proven to be the mainstay sector in absorbing labor for the past 5 years, showing an increase in absorbing labor. the challenges of economic development.

Based on the previous discussion, the author was interested in writing a journal entitled "Analysis of Labor Absorption of Manufacturing Industry in Indonesia in 1991–2015".

THEORETICAL BASIS

1. Industrial Revolution Increases Productivity, Labor, and Markets

The implementation of Industry 4.0 has been able to increase productivity, employment, and market expansion for national industries. However, the opportunities created need an alignment with technological developments and a new set of skills. Industrial Revolution 4.0 is an effort of improvement by integrating the online world and production lines in the industry, where all production processes run on the Internet as the main pillar. According to him, investment needs in the Industry 4.0 are based on four driving factors, namely increased data volume, computing power and connectivity as well as analytical and business intelligence capabilities. The Ministry of Industry is attempting to identify the readiness of all industrial sectors in Indonesia to implement the Industrial 4.0 system in its industrial activities.

2. Theory of Inclusive Growth and the Kaldorian Industry.

The theory of inclusive growth is used as a frame of mind to identify growth inhibitors in terms of providing employment from investment formation. The private sector in an area has excess savings that can be allocated for investment. Thus, these investments tend to be used to expand the market by increasing output and employing more workers. This growth diagnosis works by analyzing the most influential components of growth and finding out what factors can affect the component. However, this theory also considers that the increase in production capacity and national income is determined by the increase in public expenditure. Thus, even though production capacity increases, new national income will increase only if there is an increase in public expenditure (Arsyad, 2010: 83).

Kaldor's theory considers that the manufacturing industry sector is a growth engine for a region to increase the growth of other sectors while increasing the economic growth. The theory of Kaldor's growth in the research by Dewi and Diah A. (2010) has three aspects of the industry that are highlighted. GDP growth has a positive relationship with the growth of the manufacturing industry sector. Then, labor productivity in the manufacturing sector has a positive relationship with the growth of the manufacturing industry itself. In this case the manufacturing industry sector is considered to produce an increased scale of return. This sector carries out capital accumulation and technological innovation.

3. Labor

Human resources contain the meaning of work effort or services that can be given in the production process. In this case, HR reflects the quality of the business given by a person at a certain time to produce goods and services. The second definition of HR involves humans who are able to work to provide services or work business. Able to work means being able to carry out activities that have economic value, in that these activities produce goods or services to meet people's needs. Physically, work ability is measured by age. In other words, people in working age are considered capable of working. The population group in working age is called labor or manpower. In short, labor is defined as a population in working age (Sumarsono, 2009). The amount of supply of labor in the community is the number of people who offer services for the production process. Some of them are already active in activities that produce goods or services. They are called worker group. Others are classified as people who are ready to work and are trying to find work. They are called job seekers or unemployed people. The number of workers and job seekers is called the workforce (Simanjuntak, 1985).

RESEARCH METHODS

1. Types and Data Sources

The data used in this study were secondary data in the form of time series data from 1991–2015. These data were the data of income, exports, imports, and labor. The main data sources were the Statistics Indonesia, Bank Indonesia, the World Bank, and the Ministry of Industry of the Republic of Indonesia.

2. Data Analysis Method

The analysis in this study used simultaneous equations models because the variables studied were related to each other. For testing, the simultaneous equation econometric model was used through the preparation of the model. The model of the equation was jointly dependent. The data analysis in this study used a time series data regression analysis model. Regression analysis is a study of the dependence of one variable, namely the dependent variable, against one or more other variables (Gujarati and Porter, 2010).

RESULTS AND DISCUSSION

1. Overview of Manufacturing Industry Workforce in Indonesia.

Labor absorption is the real amount of labor employed in business units. The agricultural sector still dominates the workforce structure in Indonesia because it is the sector that absorbs the most labor. In 2003 the number of people working in the agricultural, forestry, hunting, and fisheries sectors reached 46.40% of the total working population. However, with the passage of time, this sector began to be abandoned and switched to other sectors. This can be seen in its development during the period 2001–2015, with the percentage of the population working in this sector decreasing every year. In 2015 it was recorded at 33.20%, while in the previous year (2014) it was recorded at 34.00%. From year to year the employment in the industrial sector fluctuated. In 2001 the employment in the industrial sector amounted to 12,086,122 people from a total workforce of 90,807,417 people. In 2002 it increased by 12,109,997 people (0.19%). In the following year (2012) it increased by 15,367,242 people (5.68%), then fluctuated again until 2015 by 15,255,099 or 0.003. Previously (2014) it increased by 15,254,674 people. The development of manufacturing industry employment was the highest, which occurred in 2010 with an increase of 7.67% or 13,824,251 people to be exact. In 2009 it increased by up to 2.31% or 12,839,800 people. Meanwhile, the lowest absorption of labor happened in 2003, which amounted -5.07% or 11,495,887 people, while in 2002 it was 0.19% or 12,109,997 people.

2. Variable Estimation Results That Affected Workforce

In the model specification test, a multiple regression time series data model was used to determine the effect of the independent variables, namely wages (labor costs), exports, and imports on the dependent variable, namely employment absorption in Indonesia

Variable Estimation Results That Affect Workforce

Variables	Coefficient	Standard Error	T-Statistics	Probability
WAGE	0.094	0.038	2.449	0.022
EXSPORT	0.186	0.060	3.116	0.005
IMPORT	-0.193	0.088	-2.196	0.038
C	62.771	2.216	28.331	0.000
Weighted Statistics				
R-squared	0.600	Sum square resid	28.365	

Variables	Coefficient	Standard Error	T-Statistics	Probability
F-Statistic	4.313	Durbin Watson Statistic		0.434
Prob (F-Stat)	0.015			
VIF	1.378 (uph)	5.902 (eks)	5.587 (Imp)	
Histogram	1.36 (mean)	0.941 (std)	27 (N)	

Source: Eviews data, processed (2018)

Some things that could be interpreted economically based on the regression equation obtained include the above model in this study: a coefficient of the variable X₁ of 0.094 indicates a positive influence on the variable labor absorption in Indonesia, meaning that if labor cost increases by 1 rupiah, the percentage of employment in Indonesia will increase by 0.094 *ceteris paribus*, and vice versa. A coefficient of the variable manufacturing exports of 0.186 indicates a positive influence on the variable employment absorption in Indonesia. This means that if manufacturing export increases by 1 unit, the percentage of employment in Indonesia will increase by 0.186 *ceteris paribus*, and vice versa. While a coefficient of the variable manufacturing import of -0.193 indicates a negative influence on the variable employment absorption in Indonesia, meaning that if manufacturing import increases by 1 unit, the percentage of employment in Indonesia will decrease by 0.193 *ceteris paribus*, and vice versa.

CONCLUSION

In general, according to the results of this study, it can be concluded that the large and medium manufacturing industries based on employment and added value in Indonesia in the 1991–2015 observation period were not evenly distributed between districts. From the analysis it can be seen that the distribution of large and medium manufacturing industries in Indonesia was indeed not even geographically when viewed from the number of labor expectations and added value. In some districts and cities, there was a high industrial density, while other areas actually experienced a low density level. That agglomeration economics is important to industrial location does not mean that we reject industrial decentralization efforts. Policy makers must pay greater attention to infrastructure development (infrastructure), which has a considerable role in creating agglomeration economics. In addition, the industrial sector also needs adequate infrastructure accessibility both to the market and to the factors of production. Improvement of infrastructure and accessibility allows industries to be located in smaller urban

areas or even in rural areas if the benefits derived from infrastructure availability and relatively low land prices can replace the role of agglomeration economics in big urban areas. The availability of transportation infrastructure, such as highways and good communication systems, makes it relatively easy to obtain technical and financial services. Availability of adequate labor and relatively low land prices are factors that attract positioning of industries in other regions.

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THE INFLUENCE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) EXPENDITURE ON THE GRDP OF PROVINCES IN INDONESIA

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Abstract

Information and communication technology (ICT) is important to the GRDP of provinces in Indonesia. ICT expenditure by economic actors raises the GRDP of provinces, either directly or indirectly. The purpose of this study was to describe the development of the GRDP of provinces in Indonesia and ICT expenditure variables and to analyze the impact of ICT expenditure on the GRDP of provinces in Indonesia. The analysis used panel data regression analysis with fixed effect model using the data of 33 provinces in Indonesia.

The study concluded that household expenditure for telecommunications, the percentage of households that owned/controlled cellular phones, and the percentage of households that owned/controlled computer had a significant positive effect on the GRDP of provinces in Indonesia, either jointly or partially. By contrast, the provincial government capital expenditure for ICT did not significantly affect the GRDP of provinces in Indonesia.

Keywords: expenditure, GDRP, information and communication technology, panel data

BACKGROUND/OBJECTIVES AND GOALS

Economic growth is one indicator of a region's economic development performance. There are three main components that influence economic growth, namely the accumulation of capital goods, population growth, and technological progress (Todaro and Smith, 2004). Technological progress can occur through the discovery of new ways or renewal of old ways of completing work. The discovery or renewal is marked by the presence of investments in new technologies that have the potential to improve the economy of a country.

Technology that is growing rapidly and continues to progress is the information and communication technology (ICT). ICT is the technology for processing and distributing data using hardware and software. In the era of globalization and information, ICTs have important roles, including facilitating economic actors' access to information on economic sectors.

The importance of ICTs in encouraging the economy should be followed by increases in ICT spending by economic actors. ICT expenditure is the expenditure by economic actors for ICT products produced by the information and communication sector. Increases in ICT spending include the increase in household consumption for telecommunications, the increase in investments in ICT as seen from the percentage of households that have cellular phones or computer, and the increase in government spending for ICT.

The increase in expenditure will increase the national GDP (Gross Domestic Product), both directly and indirectly. The increase in ICT spending will increase demand for ICT products and will increase the output of the information and communication sector. The increase in the output of the information and communication sector has implications for increasing national GDP directly. In addition, ICTs facilitate economic actors' access to input market information, information on output characteristics produced by each economic sector, as well as market output information produced by economic sectors. The higher access to economic actors will further encourage economic actors' expenditure on the output of goods and services produced by economic sectors. Thus, ICT increases national GDP indirectly.

Previous research by Mefteh and Benhassen (2015) on the impact of ICT on economic growth in 43 countries used dynamic panel data during the period 1995–2011. The results of the study explain that there was a significant, positive relationship between ICT and economic growth in 43 countries, with some countries having low coefficients that required strengthening the dissemination of

technology in their countries. ICT variables were represented by new technology variables, consisting of the number of fixed telephone customers, the number of fixed broadband customers, the number of individual internet users, the number of cellular telephone customers, the number of households with computers, the number of fixed Internet subscribers, and the number of fixed broadband Internet customers.

Another study by Anasmen (2009) analyzed the effect of government capital expenditure on economic growth in the province of West Sumatra. This study aimed to analyze the effect of district/city government capital expenditures, private investment, and population numbers on GRDP using panel data from districts/cities in West Sumatra province in the period 2000–2006. The results of the research state that private investment and the number of population significantly influenced GDP, while government capital expenditure did not significantly affect GDP.

Previous studies presented more topics about the influence of ICTs on the country's economy using inter-state data in a particular regional area and the influence of ICT on economic growth in a province or provincial group using data between districts/cities. Indonesia is an archipelago consisting of 34 provinces with different social and economic characteristics. Therefore, research is needed to analyze the effect of ICT spending on the regional economy using comparative data between provinces. Regional economies can be measured using macroeconomic indicators, including GDP. This study aimed to fulfill the gap, which was to analyze the influence of ICT expenditure on the GRDP of provinces in Indonesia.

METHOD

The analytical method used in this study was the panel data regression analysis method. The panel data regression analysis method was used to analyze the effect of ICT spending on the GRDP of provinces in Indonesia. The panel data used in this study were balanced panel, where each unit cross-section had the same number of time series observations. This study observed cross-section units in 33 provinces for 6 years, namely 2010–2015, so the total observations were 198. Because of the limitations of the data in the study period, the data were obtained when the Province of North Kalimantan was still part of its original province, East Kalimantan.

The relationship between the expenditure for ICTs and provincial GDP was explained by the equality of identities which shows that ICT spending was the sum of ICT expenditures by economic actors. The ICT expenditure consisted of household expenditure, investment, government expenditure, and net exports for ICT. The components of ICT expenditure directly affected the GDP of the information and communication sector. In addition, ICT spending indirectly affected the GRDP of other sectors. Therefore, ICT spending would affect the total GRDP, which was the sum of the GRDP of the economic sectors.

In this study, the components of ICT expenditure analyzed were household expenditure, investment, and government capital expenditure for ICT. In contrast, net exports for ICT were not included. The frame of mind underlying this research can be seen in Figure 1.

RESULTS

Based on the estimation results shown in Table 1, it can be concluded that the independent variables in the research model, which consisted of household consumption for telecommunications, the percentage of households that owned/controlled cellular phones, and the percentage of households that owned/controlled computers, significantly influenced the GRDP of provinces in Indonesia, both jointly and partially. Conversely, government capital expenditure for ICT did not significantly affect the GRDP of provinces in Indonesia. The explanation for each variable is as follows:

a. Household consumption expenditure for telecommunications

The estimation results obtained show that household consumption for telecommunications had a positive effect on the provincial GDP in Indonesia. Increasing household consumption expenditure for telecommunications means increasing demand for ICT products produced by the information and communication sector, and it had implications for increasing output produced by the information and communication sector. This means that the increase in household consumption for telecommunications increased the GRDP of the information and communication sector and the provincial GRDP directly.

Increased household expenditure for telecommunications means increased accessibility to input market information, information on output characteristics produced by each sector of the economy, and output market information that supported households as consumers of outputs produced by economic sectors. This increase in accessibility could encourage household demand for the output of

economic sectors. The increase in demand would drive output production which increased the GRDP of the economic sectors and provincial GDP. Thus, household expenditure for telecommunications increased provincial GRDP indirectly.

The results obtained are in line with the research by Nurhuda et al. (2013), which concluded that consumption had a significant effect on economic growth in West Sumatra province, both partially and simultaneously, using simultaneous equation models from 2000 to 2011.

b. Percentage of households that owned/controlled cellular phones

The estimation results obtained show that the percentage of households that owned/controlled cellular phones had a positive effect on the GRDP of provinces in Indonesia. The increasing percentage of households that owned/controlled cellphones represents an increase in investment in ICT. The high percentage of households that owned/controlled cellular phones in an area indicates a high level of investment in ICT in the region, and vice versa. Thus, the increasing percentage of households that owned/controlled cellular phones had implications for the increase in output produced by the information and communication sector. This means that the increasing percentage of households that owned/controlled cellular phones increased the GRDP of the information and communication sector and provincial GRDP directly.

The results of this study are in line with the results of research by Mefteh and Benhassen (2015), which states that there was a positive and significant relationship between ICT and economic growth in 43 countries from 1995 to 2011, with ICT variables represented by new technology variables including the number of cellular telephone customers. This is also in line with the results of Sari's research (2009), which states that the number of families of telephone users had a positive impact on economic growth in 25 underdeveloped districts in the eastern region of Indonesia.

c. Percentage of households that owned/controlled computers

The estimation results obtained show that the percentage of households that owned/controlled computers had a positive effect on the GRDP of provinces in Indonesia. The increase in the percentage of households that owned/controlled computers represent an increase in investment in ICT. The high percentage of households that owned/controlled computers in an area indicates a high level of investment in ICT in the region, and vice versa. Thus, the increasing percentage of households that owned/controlled computers had implications for the increase in

output produced by the information and communication sector. This means that the percentage of households that owned/controlled computers increased the GRDP of the information and communication sector and provincial GRDP directly.

Ownership of cellular telephones and/or computers supported people's accessibility to economic sectors in Indonesia. Ownership of cellular and/or computer telephones made it easier for people to access input market information, information on output characteristics produced by each sector of the economy, as well as output market information that supported communities as consumers of outputs produced by economic sectors. This accessibility could encourage public demand for the output of economic sectors. The increase in demand would drive output production which increased the GRDP of the economic sectors and provincial GDP. Thus, ownership of cellular and/or computer telephones increased provincial GRDP indirectly.

The results of this study are in line with the results of the research by Mefteh and Benhassen (2015), which states that there was a significant, positive relationship between ICT and economic growth in 43 countries from 1995 to 2011, with ICT variables represented by new technology variables including the number of households with computers.

d. Provincial government capital expenditure for ICT

Increased provincial government capital expenditure for the ICT sector was expected to contribute to the GRDP of provinces in Indonesia through increased accessibility in the environment/territory of the provincial government and the implementation of e-government in providing services to economic actors. The estimation results obtained from this study indicate that government capital expenditure, consisting of capital expenditure for the procurement of computers and communication equipment, did not significantly affect the provincial GDP in Indonesia.

This result is in line with the research conducted by Anasmen (2009) that used panel data from the observation period 2000 to 2006, which states that the results of government capital expenditure did not significantly affect the GRDP of regencies/cities in West Sumatra Province. This result is also in line with the results of research by Ratnasari (2016) that used the time series method over the observation period 1979–2014, which shows that government capital expenditure did not significantly influence Indonesia's economic growth.

3.1 Formula and Equation

Panel data regression analysis was used to answer the purpose of this study, which was to analyze the effect of ICT spending on provincial GRDP in Indonesia. The independent variables that represented ICT expenditures included the average household consumption for telecommunications (CONS), the percentage of households that owned/controlled cellular phones (CELL), the percentage of households that owned/controlled computers (COMP), and government capital expenditure for ICT (GOV). The dependent variable used was the GRDP of provinces in Indonesia in the basic year 2010 (GRDP).

Based on the results of the model suitability test through the F Statistic test (Chow test or Likelihood Ratio Test) and the Hausman test, the right model used in this study was the fixed effect model. The estimation results of the fixed effect model are presented in Table 1. The model used to estimate the effect of ICT expenditure on the GRDP of provinces in Indonesia is as follows:

$$LNGRDP_{it} = \alpha_i + \beta_1 LNCONS_{it} + \beta_2 CELL_{it} + \beta_3 COMP_{it} + \beta_4 GOV_{it} + u_{it} \quad (1)$$

with:

- GRDP = GRDP of provinces in Indonesia with the basic year 2010 (rupiah)
- CONS = Household consumption expenditure for telecommunications (rupiah)
- CELL = Percentage of households that owned/controlled cellular phones (percent)
- COMP = Percentage of households that owned/controlled computers (percent)
- GOV = Provincial government capital expenditure for ICT (rupiah)
- α = intercept
- $\beta_1, \beta_2, \beta_3, \beta_4$ = estimated coefficient of parameters
- μ = error term
- i = province; $i = 1, 2, 3, \dots, 33$
- t = year; $t = 1, 2, 3, \dots, 6$

3.2 Figures and Tables

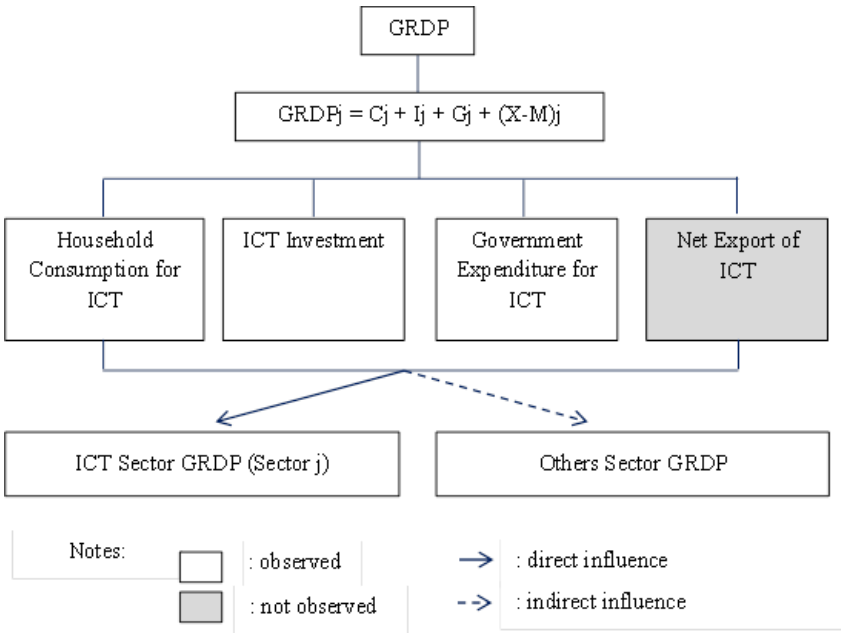


Fig. 1: Research Framework

Table 1:
The Estimation Results of Fixed Effect Model Influence ICT Expenditure on the GRDP of Provinces in Indonesia

Dependent Variable: LNCRDP		
Independent Variable	Coef.	Prob.
C	30.46280*	0.0000
LNCONS	0.090075*	0.0000
CELL	0.005672*	0.0000
COMP	0.018128*	0.0000
LNGOV	-0.003106*	0.3880
<i>R-squared</i>	0.999554	
<i>Adjusted R-squared</i>	0.999455	
<i>Prob(F-statistic)</i>	0.000000	
<i>Sum squared resid (weighted)</i>	0.253454	
<i>Sum squared resid</i>	0.255783	

*significant at 5% level

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THE ROLE OF COMMUNICATION AND MOTIVATION SKILLS IN IMPROVING STUDENTS ABILITY IN LEARNING

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Abstract

In the Open and Distance Learning (ODL) System, tutors play important roles as facilitators, models, references, and knowledge resources for students, besides another open educational resources. The limited time to conduct a face-to-face tutorial and the occupational factors of student make it necessary for tutors to have the ability to encourage students in learning as part of pedagogical and social competences and to master the subject matter as part of professional competence. For young students who are still immature, tutors play an important role in maintaining discipline and high motivation in class and after class. Instability and impressionableness are the weaknesses of young students. It is, thus, important to have qualified tutors who have the skills in communication and raising motivation.

Universitas Terbuka Kupang has been implementing a scholarship program for young students by the Ministry of Research, Technology, and Higher Education named Bidikmisi. The requirements for the scholarship eligibility include the following: prospective awardees were graduated from senior high schools no more than 2 years ago or are aged 18–20, ranked high academically, and come from low-income family. It is open to 25 prospective students in the Management study program. In the first year (from 2012.2 to 2013.1), the student's GPAs were low. This problem was solved because from the second half of 2013 to 2016 the management changed the tutor recruitment system, which were based on the evaluation results with an emphasis on communication skills using a variety of media and motivation skills to encourage the students.

The GPAs of students for three years in the periods 2012.2–2013.1, 2013.2–2014.1, and 2014.2–2015.1 constantly increased with values of 2.06 in the 1st year, 2.09 in the 2nd year, and 2.24 in the 3rd year. The role of communication and motivation skills is important for improving students' ability in learning.

Keywords: communication, motivation, student's ability

INTRODUCTION

The keys to the success of the Open and Distance Learning (ODL) system are students' motivation and strong discipline. Limited time to conduct face-to-face tutorials and the occupational factors of the students are typical in ODL. Efforts of stakeholders such as tutors, students, and the management, to improve the students' ability are important, especially for young students who are immature, instable, and impressionable. Conselling from the tutor to keep strong discipline and high motivation of the students is needed. Besides, in teaching, tutors have to use effective communication to transfer the knowledge. This is important to Universitas Terbuka Kupang, Indonesia, which, since 2012.2, has been implementing a student scholarship program by the Ministry of Education and Culture named Bidikmisi, which is educational budget for poor students who rank high in class. The requirements to be a Bidikmisi scholarship awardee include: graduated from senior high school no more than 2 years ago, ranking high in class, and coming from a low-income family. For a student to keep receiving the scholarship, he/she must have minimum GPA of 2.75 per year. Otherwise, the scholarship will be discontinued. Since 2012.2, Universitas Terbuka Kupang, Indonesia, admitted 25 Management students through the scholarship program.

Motivation is part of Management science in the Economics science group, while Communication is part of Communication science in the Social science group. In practice, however, the sciences are interrelated. In the learning process, tutors are required to have the ability to use effective communication and to raise strong motivation in students. Tutors have 4 competences, namely professional competence, pedagogic competence, social competence, and individual competence. Before we discuss about communication and motivation, we need to understand the definition of learning.

Learning is a mental and emotional process as well as a thinking process of an individual. Learning activities occur with the involvement of thinking process and emotional process. If an interaction between a tutor and students occurs and the students are engaged in high activities and participation in the process, the process of learning is running well.

There are some key principles in learning process:

1. Motivation should be raised as a motor in building mental activities. Concentration should be placed on an object. The result will be better if more focus is given to an object.
2. Mental and emotional activities, which is the ability to involve students in learning.
3. Feedback. The goal is to inform the students whether the result of the task is right or wrong.
4. Dissimilarity of Individuals. This principle means that every student is unique in experience, interest, emotional, and intelligence. Therefore, the learning method must be different according to the student's condition.

One of a tutor's roles is to manage the class. This means that a tutor should have the ability to establish effective communication with students.

Communication is a process of sending a message from a sender to a receiver. Effective communication happens if the message is received well. There are 5 types of communication, which are divided into centralization classes (Hanafi, 2015):

- Circle = Very centralized, one-way communication. This is also an expository strategy, where the sender is active in exploring a matter, while the receiver is passive.
- Chain = Centralized, focused to sender.
- Y type = Half centralized.
- Star = Desentralized, all people give information contribution.
- All-Channel = Very decentralized. In the learning process, the best type of communication is all-channel communication. This is a heuristic strategy, where the sender is active in exploring the information.

Another aspect is motivation, which is a motor for doing something (Stoner et al., 1995). There are 3 motivation theories, namely content theory, process theory, and contingency theory. Content theory discusses about the factor inside a human that cause special behaviour. An example of content theory is the theory by Abraham Maslow, Clayton Alderfer, David McClelland, and Herzberg (Suton and Griffin, 2004). Process theory discusses about how people behave. Meanwhile, contingency theory discusses about the reward to get behaviour.

The author chose the process theory of Victor Vroom, which states that motivation is a result of expectation, instrumentality, and valence. In this theory,

we could calculate the score of motivation based on our estimation of what we expected and our weighing of instrumentality and valence. This is a subjective aspect. However, this helped us improve motivation. If our score of motivation cannot improve the result, we increase the motivation by increasing the weight in order to increase the result. In this case, if the students' GPAs are under the requirement of a minimum GPA of 2.75, we improve their motivation by increasing their willingness in the instrumentality and valence. The formula of motivation from Victor Vroom (Sobirin, 2013) is as follows:

$$\text{Effort (E)} = \text{Exp.} \sum (I, V),$$

E = Effort or motivation

Exp = Expectation

I = Instrumentality

V = Valence

- Expectation means the trust that the performance is caused by people's effort, calculated by weighing the result.
- Instrumentality was weighed for each benefit value.
- Valence is a benefit value of doing something as an objective decision. The score of valence ranged from +10 (very usefull) to -10 (very unusefull).

Based on the theory of Victor Vroom, the researcher obtained the score of motivation of the students and compared it with the GPA. The data were collected by interviewing the students, while their motivation score was calculated. If the GPA does not fulfill the requirement, the tutor builds the motivations of the students. Students increased their motivation by increasing the weights of expectation, instrument, and valence.

Based on Vroom's theory of motivation, Lunnenberg (2011) states that people are motivated by elements such as effort, which will lead to acceptable performance (expectancy), reward for the performance (instrumentality), and highly positive value of the reward (valence).

RESEARCH METHOD

A. Place and Time

This research was conducted in Universitas Terbuka Kupang, Indonesia, since 2012.2 to 2015.1.

B. Population and Sample

The population of this research consisted of 25 students of the Management study program. All of the students became the sample of this research. This research is descriptive-qualitative research.

C. Data Collection

The data needed were collected by identifying 2 (two) variables, communication and motivation, in the following steps.

1. The learning model used by tutors, the subject matter, and the students' characteristics were identified.
2. The type of communication used by the tutors when they were giving the tutorial (whether it was Circle, Chain, Y Type, Star, or All-Channel) was identified.
3. To ensure the tutors' ability to communicate effectively in class, questionnaires using 4-point Likert Scale were distributed to the students, with the criteria as follows:
 - 1 = very low
 - 2 = low
 - 3 = high
 - 4 = very high

The students were asked to fill the questionnaires.

1. The students were interviewed about their motivation of learning, which was then compared with their motivation outside learning.
2. The students were asked to self-determine the weighed score of expectation, instrumentality, and valence.
3. The motivation score of each student was calculated with Victor Vroom formula.

D. Data Analysis

The researcher observed the type of communication and compared the score of motivation with the students' GPAs to determine one of the following four probabilities:

- Neither the type of communication nor motivation could improve student's ability in learning.
- The type of communication could improve the student's ability in learning.
- The motivation could improve the student's ability in learning,
- Both the type of communication and motivation could improve the student's ability in learning.

RESULTS AND DISCUSSION

A. Results

The results of this research consist of the following data:

1. the type of communication between tutors and students and
2. the score of motivation of each student.

The type of communication between tutors and students are presented in Table 1.

Period	Tutor	Score of Questionnaire	Type of Communication	Tutor's Strategy	Name of Subject Matter
2012.2	A	2.98	Y type	Heuristic	Management
	B	3.02	Y type	Heuristic	Introduction to Business
	C	3.27	Y type	Heuristic	Indonesian Language
	D	2.91	Circle	Expository	Mathematics of Economics
	E	2.98	Circle	Expository	Religion
	F	2.97	Circle	Expository	Introduction to Macroeconomics
2013.1	D	2.79	Circle	Espository	Statistic of Economics
	G	3.11	Chain	Heuristic	Introduction to Accounting
	H	2.97	Chain	Expository	Bank and Depository Institutional
	A	3	Y type	Heuristic	HRD Audit
	D	3	Chain	Expository	Introduction to Microeconomics
	I	3	Chain	Expository	Business Communication
2013.2	H	3.01	Chain	Expository	Financial Management
	J	2.99	Chain	Expository	HRD Development
	K	3.45	Star	Heuristic	Supply Chain Management
	L	3.14	Y type	Heuristic	Strategic Marketing
	L	3.25	Y type	Heuristic	Service Marketing
	M	3.33	Y type	Heuristic	Managerial Economics
2014.1	N	3.11	Y type	Heuristic	Marketing Management
	O	3.02	Chain	Expository	HRD Management
	K	3	Chain	Heuristic	Operasional Management
	P	2.92	Chain	Expository	Organizational Behaviour

Period	Tutor	Score of Questionnaire	Type of Communication	Tutor's Strategy	Name of Subject Matter
	Q	3.35	Star	Heuristic	Organization
	R	3.16	Y type	Heuristic	Civilization
2014.2	K	3.19	Star	Heuristic	Product Design
	M	3.24	Star	Heuristic	Monetary Economics
	S	3.4	Star	Heuristic	English Language for Business
	K	3.31	Y type	Heuristic	Service Operation Management
	N	3.12	Y type	Heuristic	Consumer Behaviour
	T	3.14	Y type	Heuristic	Cost Accounting
2015.1	U	3.15	Y type	Heuristic	Change Management
	U	3.12	Y type	Heuristic	Industrial Relationship
	V	3.14	Y type	Heuristic	Entrepreneurship
	M	3.29	Star	Heuristic	Indonesian Economics
	T	3.33	Star	Heuristic	Management Accounting
	T	3.27	Star	Heuristic	Budgeting

The scores of motivation of the students are presented in Table 2.

Num.	Period	Expectation		Instrument	Valence			E	GPA
1	2012.2–2013.1	Focused on Learning	0.9	Focused on Learning	0.4	Dissappoint friend	-6	1.74	2.06
					0.5	Stress	-2		
					0.7	Score of Examination	7		
		Focused on other activities	0.8	Focused on other activities	0.8	Increase of Income	8	4.02	
					0.6	Good in Social Relationship	4		
					-1	Score of Examination	7		
2	2013.2–2014.1	Focused on Learning	0.9	Focused on Learning	0.3	Dissappoint friend	-6	3.18	
					0.4	Stress	-2		
					0.8	Score of Examination	7		
		Focused on other activities	0.8	Focused on Other Activities	0.8	Increase of Income	7	2.68	
					0.6	Good in social relationship	4		
					-1	Score of Examination	7		
3	2014.2–2015.1	Focused on Learning	0.9	Focused on Learning	0.3	Dissappoint friend	-5	3.65	
					0.3	Stress	-2		
					0.8	Score of Examination	7		
		Focused on other activities	0.8	Focused on other activities	0.7	Increase of Income	7	2.12	
					0.6	Good in social relationship	4		
					-1	Score of Examination	7		

B. Discussion

Based on the table above, we can see that since 2013.2 to 2015.1 most of the tutors used Y Type and Stars as the centralization models, meaning that tutors and

all students participated in the learning process. The students gave contribution to discussion, while the tutors used a brainstorming method in teaching. The use of decentralized communication was effective in the learning activities. The interaction between tutors and students was good. In class, almost all tutors used the heuristic strategy, meaning that the students actively observing the subject matter given by the tutors. The decoding process of the students' interpretation of the message went well.

In the evaluation of tutors' performance to provide better tutors for students, since 2014.2 new tutors with better performance have been recruited. In subject matter Financial Management tutor H, who used circle communication and expository strategy in learning was changed with tutor T, who used all-channel communication and heuristic strategy in learning. Meanwhile, given the consistency of the use of all-channel communication and heuristic type, tutor M in subject matter Indonesian Economics was retained since 2013.2 to 2015.1.

Since 2013.2, students have been able to improve their motivation. With the encouragement given by the tutors and some counseling, students improved their motivation by increasing their own weighted score of expectation, instrumentality, and valence. This means that since 2013.2 they have been focused more on learning than other activities. Raising motivation could improve people's performance and could also be implemented not only in the education sector but also in various organizations. Lunnenberg (2011) says that increasing motivations could improve employees' ability to work.

The stimuli given by the tutors improved students' motivation. Meanwhile, the students' GPAs have increased since 2013.2.

Many factors have caused the increase in students' GPAs as indicated by the students' ability in learning. Effective communication between tutors and students and tutors' efforts to create high motivation in students play a role in improving students' ability in learning. Tutor used the decentralized model such as Y type and Star communication in teaching in class. The usage of heuristic strategy in class could increase the transfer of knowledge between the tutors and the students and improve the students' ability in learning. The skill to raise motivation could also improve the students' ability in learning.

CONCLUSIONS

A. Conclusions

1. The skill of tutors to use effective communication could improve students' ability in learning in Universitas Terbuka Kupang, Indonesia.
2. The skill of tutors to raise motivation could improve students' ability in learning in Universitas Terbuka Kupang, Indonesia.

B. Recommendation

Development of the skills to use effective communication and raise motivation can be carried out in other higher education institutions which are facing the problems of improving students' ability in learning.

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THE IMPACT OF ECONOMIC GROWTH ON THE ENVIRONMENTAL QUALITY IN EACH PROVINCE AS AN INDICATOR OF REGIONAL DEVELOPMENT IN INDONESIA

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Abstract

Global warming is a phenomenon that occurs due to greenhouse gases in the atmosphere resulted by various human conditions as the impact of economic development activities. The relationship between income and environmental degradation can be represented by the Environmental Kuznets Curve (EKC). The data used in this research were secondary data, consisting of data of gross regional domestic product (GRDP) per capita and environmental quality index (EQI) data of 33 provinces in Indonesia, because it is EQI, not environmental damage data, that will prove the EKC hypothesis of whether U is not an inverted U-letter and how it affects the economic growth in Indonesia's environmental quality index of every province in Indonesia. Indonesia's EQI (air, water, and forest cover) was analyzed using a descriptive analysis method in 2011–2013. This study shows that EKC has yet to be applicable in Indonesia in the case of EQI's relationship with economic growth. It can be concluded that Indonesia is still in phase 1 with increasing GRDP being followed by declining EQI. The estimation results prove that Indonesia will soon enter phase 2 of Kuznets hypothesis, with the economic growth increasing while the increase of environmentally friendly degradation slowing down. Therefore, it is suggested that the Government should formulate policies that can increase the community's willingness to protect the environment and improve economic development in every province or region in Indonesia.

Keywords: economics growth, Environmental Kuznets Curve, Environmental Quality Index, regional development, gross regional domestic product

INTRODUCTION

The Sustainable Development Goals (SDGs) agreed in 2015 are the sustainability of the Millennium Development Goals (MDGs). SDGs have become a new history in global development because the SDGs agreement established in

the 70th General Assembly of the United Nations (UN) has a new universal development goal that starts in 2016 and ends in 2030. According to Panuluh (2016), SDGs carry 5 principle fundamentals that balance the economic, social, and environmental dimensions, namely 1) People, 2) Planet (earth), 3) Prosperity, 4) Peace, and 5) Partnership (cooperation). The SDGs agreement has 17 goals and 169 targets, whereas the MDGs agreement only has 8 goals and 21 targets. MDG processes also have weaknesses because the process from the preparation until the implementation is exclusive and highly bureaucratic without any involvement of non-government stakeholders, such as civil society organizations, universities/academics, business and private sectors, and other groups (Panuluh & Fitri, 2016). However, the preparation of the SDGs per se is faced with several challenges because there are some MDG targets that cannot be achieved and must be continued in the SDGs (Erwandari, 2017). SDGs were agreed by 193 heads of state and government who were members of the United Nations, including the State of Indonesia.

The application of SDGs in Indonesia has been regulated under Presidential Regulation No. 59 of 2017. The Indonesian Government is trying to avoid delays in the SDGs implementation because its implementation of MDGs previously experienced a 10-year delay since its approval in 2000. The Indonesian Government explained that the delay was due to Indonesia's being in the process of recovery from the aftermath of the 1998 crisis at that time. A presidential regulation outlines 17 objectives of SDGs implementation included in the national target of the 2015–2019 National Medium-Term Development Plan (RPJMN) in Indonesia. The implementation of Sustainable Development Goals in Presidential Regulation Number 59 of 2017 includes the following:

1. end all forms of poverty everywhere;
2. eliminate hunger, achieve good food and nutrition security, and increase sustainable agriculture;
3. ensure a healthy life and improve the welfare of all residents of all ages;
4. ensure the quality of inclusive and equitable education and increase lifelong learning opportunities for all;
5. achieve gender equality and empower women;
6. ensure the availability and sustainable management of clean water and sanitation for all;
7. ensure access to affordable, reliable, sustainable, and modern energy for all;
8. increase inclusive and sustainable economic growth, productive and comprehensive employment opportunities, as well as decent work for all;

9. build resilient infrastructure, enhance inclusive and sustainable industries, and encourage innovation;
10. reduce intra and interstate disparities;
11. make cities and settlements inclusive, safe, resilient, and sustainable;
12. ensure sustainable production and consumption patterns;
13. take quick action to address climate change and its impacts;
14. conserve and sustainably utilize marine and oceanic resources for sustainable development;
15. protect, restore, and enhance sustainable use of terrestrial ecosystems, manage forests sustainably, stop desertification, restore land degradation, and stop loss of biodiversity;
16. strengthen an inclusive and peaceful society for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels; and
17. strengthen means of implementation and revitalize global partnerships for sustainable development (Public Relations Setkab, 2017).

One important issue that remains for more than two decades among the international community is global warming and climate change. Global warming and climate change are a phenomenon of increasing concentrations of greenhouse gases in the atmosphere due to various human activities as a result of economic development activities. Burning fossil fuel is one of the largest sources of greenhouse gases. Coupled with deforestation that contributes to the problem due to the loss of forest function, it transforms CO₂ in the form of gas into biomass. In addition, agricultural activities, coal mining, and leakage of natural gas transmission pipes also add greenhouse gases by releasing methane.

The decline in the environmental performance index in Indonesia is in line with the increase in Indonesia's national income as represented by GDP per capita. The increase in GDP per capita is due to the success of the Indonesian State in carrying out development. One of the development strategies implemented by developing countries, including Indonesia, is implementing changes in the economic structure.

1. Problem Formulation

How does economic growth influence the index of environmental quality in Indonesia?

2. Purpose

To know the effect of economic growth on the index of environmental quality in Indonesia

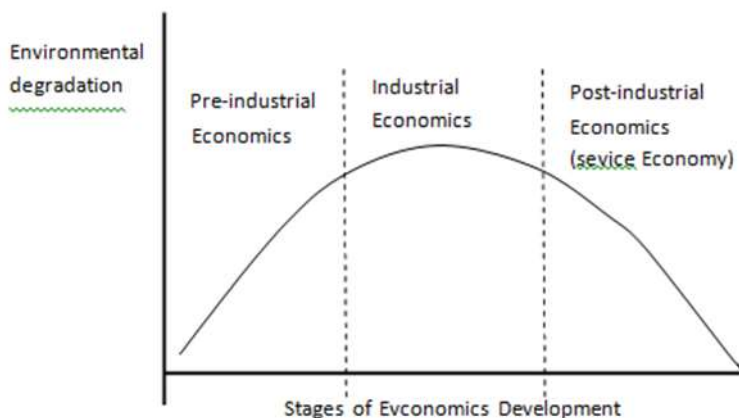
LITERATURE REVIEW

1. Theory of Economic and Environmental Relations

Environmental Kuznets Curve is known as the first theory that describes the relationship between the level of economic growth and environmental degradation of a country. According to this theory, when a country's income is still relatively low, the country's attention will be focused on how to increase state revenues, both through production and investments that encourage an increase in income, by excluding environmental quality problems. As a result, revenue growth will be followed by an increase in pollution levels followed by the next decrease with that growth keep it running. This theory is developed on the basis of the demand for environmental quality that increases social supervision and government regulation so that the community will be more prosperous (Mason and Swanson, 2003).

Almost all countries in the world have been exploiting their forests, fisheries, and mining wealth excessively and polluting water and air to accelerate short-term economic growth in order to improve the welfare of their citizens. While a lot of natural capital has been sacrificed through deforestation, loss of biodiversity, land degradation, water and air pollution, and access to safe water and wastewater treatment and various sanitation facilities have often shown improvements in economic growth (Thomas et al., 2001)

Peters in Hutabarat (2010) describes the relationship between air pollution problems and the level of growth of a country. In the early stages of development, the country develops industries to increase output in order to improve the welfare of the community. When industrialization increases, air pollution will also increase. Countries that increase their economic growth will have the ability to control the pollution. After the country has succeeded in developing methods and procedures to control pollution, the levels of pollution can be arrested and can even be reduced in line with economic growth. The ability of the state will also be used to improve air quality. In the end, the country will develop environmentally friendly technology so that pollution can be reduced. When a country experiences increasing growth, the problem of air pollution also increases rapidly. This happens before the stabilization or control of air pollution can be implemented.



Environment Kuznet Curve

The shape of the curve is explained as follows. Per capita Gross Domestic Income in this case is indicated by horizontal lines, while environmental damage in this case is indicated by vertical lines. Three conditions apply:

- a. The first condition: at a time when income is low, measures to reduce environmental damage are not carried out by humans because it is better to use their limited income to meet basic consumption needs;
- b. The second condition: at a certain level of income that has been achieved, individuals begin to consider the trade-offs between environmental quality and consumption. In this condition the level of environmental damage starts to slow down, and
- c. The third condition: after a certain point, expenditure for reducing environmental damage dominates the individual to prefer improving environmental quality to subsequent consumption. In the end, the quality of the environment began to improve with economic growth.

The Kuznets Environmental Curve can be understood because the process occurs as follows:

- a. Because of technological advances, the company initially concentrates on expanding production as quickly as possible, but as technology develops, the production process becomes cleaner and resources become more efficient;
- b. Because of behavioral change, the community is initially attracted to a higher level of consumption, regardless of the means achieved, but after a certain

point, greater consideration is given to other factors that affect the quality of life, including the environment;

- c. Because of Lewis's growth model, any pattern of economic development is characterized by changes in patterns of economic activity. In Phase 1, the community concentrates the sector's primary resources (i.e., agriculture) to meet the required consumption; in Phase 2, resources shift to the secondary sector (i.e., manufacturing) as basic needs are met and then consumption is concentrated on consumer goods; and in Phase 3, the community moves from secondary to tertiary sector (i.e., services) characterized by far more levels of environmental damage low.

2. Economic Growth

Economic growth is defined as the development of activities in the economy that causes goods and services produced in society and the prosperity of the community to increase (Sukirno, 2000). So, economic growth measures the achievement of the development of an economy. From one period to another period the ability of a country to produce goods and services will increase. This increased ability is caused by the increase in production factors, both in quantity and quality. Investment will increase capital goods, and the technology used is also growing. Besides that, labor increases as a result of population growth along with their increasing education and skills. Economists interpret economic growth or development as an increase in GDP/GNP. In a broad sense, economic growth is used to express developments in developed countries, while economic development is to express development in developing countries (Arsyad, 1992).

Economic growth is one of the important indicators to analyze the economic development that occurs in a country. "Growth" is not synonymous with "development." Economic growth is one of the requirements of many conditions needed in the development process (Meier, 1989). Economic growth only records an increase in the production of goods and services nationally, while development is of a wider dimension. One of the goals of regional economic development is to increase the rate of regional economic growth.

3. Environmental Quality Index (EQI)

During this time, to find out the quality of the environment, partial measurements are carried out based on the media, such as water, air, and land. As a result, information about how the environmental conditions are comprehensive cannot be obtained. To get comprehensive environmental information, the Danish

International Development Agency has also developed an environment-based index that was modified from the Environmental Performance Index (EPI), which was first developed in 2006 by Yale Center for Environmental Law and Policy.

The EQI concept developed by Statistics Indonesia (BPS) only takes three environmental quality indicators, namely river water quality, air quality, and forest cover. In contrast to Statistics Indonesia, EQI is calculated at the provincial level so that a national level index will be obtained. Another difference from the concept developed by Statistics Indonesia is that each parameter in each indicator is combined into one index value. The parameters that are used to measure the index of each indicator are as follows. The parameter for the indicator of river water quality is the proportion of the number of water samples with the water pollution index (IPA) > 1 to the total number of samples. For the air quality indicator, the parameter is the air pollution standard index (APSI), while for the forest cover indicator, the proportion of primary and secondary forest area is used for forest area.

Calculation of water and air quality index values refers to the quality standards or standards set by the Minister of Environment (water quality standards and ambient air quality standards). Meanwhile, the forest cover index uses the standard area of forest area in each province set by the Minister of Forestry.

4. Previous research

From the research conducted by Robert T. Deacon and Catherine S. Norman (2004) on the relationship between income levels and pollution levels (SO₂ emissions, smoke, and other air pollution particles), it was found that there was a relationship between income and pollution levels. Furthermore, from the research conducted by Georg Muller-Furstenberger, Martin Wagner, and Benito Mullere (2005), it is proven that the hypothetical Kuznet Karbon (Carbon Kuznet Hypothesis) does not follow the inverted U curve hypothesis, but has an increasingly monotonous relationship.

RESEARCH METHOD

1. Data Collection Method

▪ Documentation Method

Data collection in this writing used the documentation method by collecting data from selected reports relevant to the topic of research problems. Data collection in this study aimed to obtain relevant and accurate materials. The

documents were in the form of books, journals, and related literature. The data obtained are secondary data issued by the United Nations and related journals.

2. Analysis Method

Data analysis was carried out with analytical techniques to achieve research objectives.

a. Descriptive Statistics

Descriptive statistics are statistics used to analyze data by describing data that have been collected as it is without the intention of making conclusions that apply to the public (Sugiyono, 2004: 142).

b. Regression Analysis

Regression analysis is a method used to analyze the relationship between variables. The relationship can be shown in the equation that connects the dependent variable (Y) with the independent variable (X). In regression analysis, the pattern of relationships between variables is shown in the regression equation, which is assumed to be based on sample data. This study used the regression analysis method on a panel data format.

An analysis of the relationship between economic growth and the Environmental Quality Index was carried out on all indices, which include:

- (1) the relationship between economic growth and the water quality index;
- (2) the relationship between economic growth and the air quality index;
- (3) the relationship between economic growth and the forest cover index; and
- (4) the relationship between economic growth and the environmental quality index (EQI).

3. Data Types

The data used in this study were secondary data, which consisted of per capita GRDP data and Environmental Quality Index (EQI) data of 33 provinces in Indonesia in 2011–2013.

a. Research Variables and Operational Definitions

1) Research Variables

A research variable is the object to be studied which has a variety of values. In this study, the variables consisted of dependent and independent variables.

2) Definition of Operational Variables

(a) Independent Variables

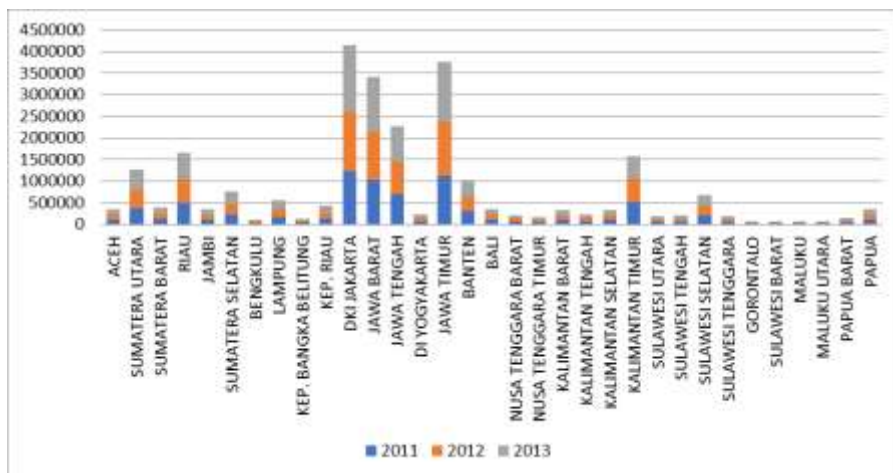
- Indonesian Economic Growth
Economic Growth (GRDP) of 33 provinces in Indonesia.

(b) Dependent Variables

- Environmental Quality Index
The Environmental Quality Index with three environmental quality indicators, namely water quality, air quality, and forest cover.

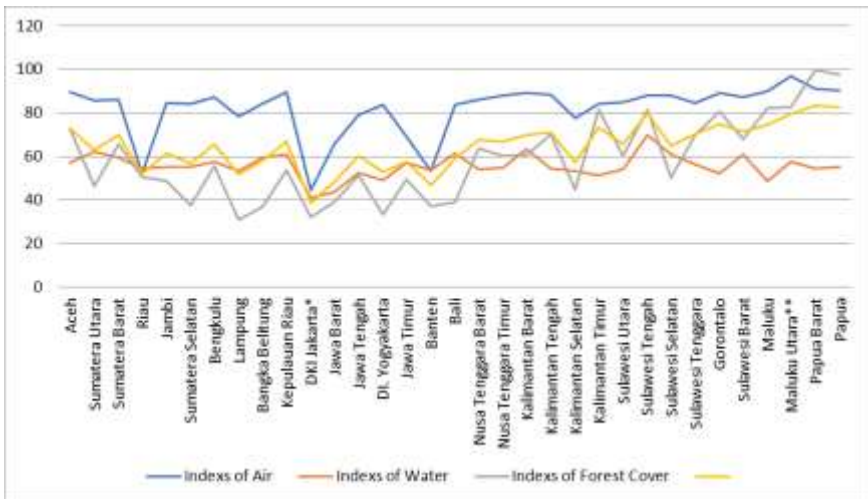
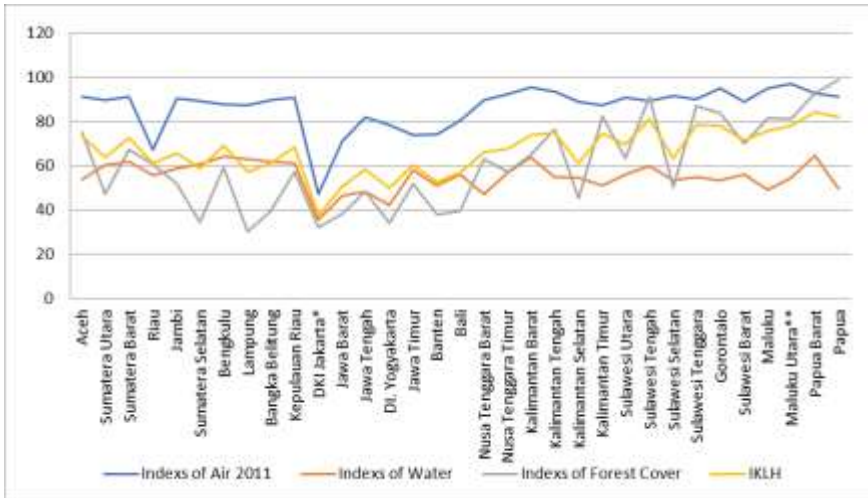
RESULTS AND DISCUSSION

1. Results

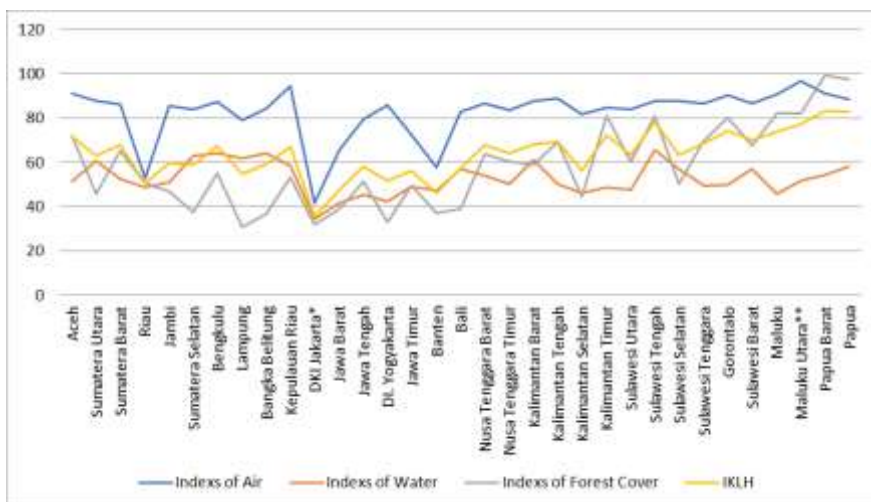


Graph GRDP of 33 Provinces in Indonesia 2011–2013

Graph Comparison of the Environmental Quality Index by Province in Indonesia in 2011



Graph Comparison of the Environmental Quality Index by Province in Indonesia in 2012



Graph Comparison of the Environmental Quality Index by Province in Indonesia in 2013

Based on the graph, the GRDP of each province from 2011 to 2013 constantly increased. The province with the highest GRDP was DKI Jakarta Province and the province with the lowest GRDP was North Maluku Province. Furthermore, the province with the highest EQI was West Papua Province, while the province with the lowest EQI was DKI Jakarta Province. DKI Jakarta Province had the lowest EQI due to the high economic activity carried out in the province, which had the potential to pollute the water and air environment.

Furthermore, viewed from each of the provincial environmental quality index, the province that had the highest water quality index was Central Sulawesi Province, and the province with the lowest index was DKI Jakarta Province. The highest air quality index was obtained by Papua Province, and the lowest by DKI Jakarta Province. The highest forest cover index was obtained by Papua Province, and the lowest by Lampung Province.

2. Discussion

The relationship between the level of welfare and environmental quality was evidenced by the research conducted by Bartz and Kelly (2004), Stern (2004), Susandi (2004), and Hung and Shaw (2005), which studied the relationship

between well-being and environmental degradation and concluded that well-being influences environmental degradation with patterns as shown by Environment Kuznet Curve (EKC). This curve describes the relationship between economic growth as measured by per capita income and the level of environmental degradation and will produce a curve with an inverted U Curve.

EKC shows that environmental degradation will increase with the increase in per capita income, but after reaching a certain point (turning point), environmental degradation will decrease even though income rises. This condition will be achieved if the population's income is sufficient, so that part of the income is used to improve the environment. From the shape of the curve proposed by Kuznet, it can be seen that the relationship between the level of welfare and environmental degradation fulfills the equation of rank (quadratic), namely:

$$Y = b_0 + b_1X + b_2X^2 \dots\dots\dots (1)$$

In this study, EKC was proven in the relationship between economic growth and the level of environmental degradation indicated by the index of environmental quality (water quality, air quality, and forest cover indices). This study used the GRDP data and the environmental quality index (water quality, air quality, and forest cover indices) of 33 provinces in Indonesia for the period 2011–2013. The equation is as follows:

$$Water = b_{0t} + b_1Y_t + b_2Y_t^2 + \mu_t \dots\dots\dots (2)$$

$$Air = b_{0t} + b_1Y_t + b_2Y_t^2 + \mu_t \dots\dots\dots (3)$$

$$Forest = b_{0t} + b_1Y_t + b_2Y_t^2 + \mu_t \dots\dots\dots (4)$$

$$IKLH = b_{0t} + b_1Y_t + b_2Y_t^2 + \mu_t \dots\dots\dots (5)$$

Information:

Water = Water quality index

Air = Air quality index

Forest = Forest cover index

IKLH = Environmental quality index

Y = Provincial GDP (billions of rupiah)

μ = Error

t = Time period

The relationship between GRDP and EQI

1) The Relationship between Economic Growth and Water Quality

The estimation model of the relationship between economic growth and water quality was obtained from the results of data processing as follows:

$$Quality\ of\ Water = 64.194 - 4.568 \cdot 5GRDP + 1.146 \cdot 11GRDP^2$$

R-squared	0.818039
Adjusted R-squared	0.721373
F-statistic	8.462488
Prob (F-statistic)	0.000000

This model is feasible to estimate the effect of economic growth on environmental quality because the independent variable has a significant F count of 8.462488 with a significance level smaller than 0.05. Thus the results of the analysis in this study indicate that economic growth has an effect on water quality. Based on the results of this study, the value of Adjusted R-squared was obtained at 0.721373 or 72.13%. This shows that 72.13% of environmental quality such as water was influenced by economic growth, while the remaining 27.87% was explained by other variables.

The estimation results show that economic growth has a significant effect on water quality in a quadratic function, but not in accordance with the Kuznet Curve Environment theory, because the coefficient of Y2 was positive (+), although small. This shows that the relationship between economic growth and the water quality index was not proven to follow the hypothesis of the U (not inverted) curve. This means that the curve describing the relationship between economic growth and the water quality index in Indonesia was not like the letter U, but in the form of a linear relationship. It can be said that Indonesia in the Kuznet hypothesis was still in stage 1.

2) The Relationship between Economic Growth and Air Quality

The estimation model of the relationship between economic growth and air quality was obtained from the results of data processing as follows:

$$Quality\ of\ Air = 107.678 - 0.000123PDRB + 4.2588 \cdot 11PDRB^2$$

R-squared	0.951567
Adjusted R-squared	0.925837
F-statistic	36.98280
Prob (F-statistic)	0.000000

This model was feasible for the estimation of the effect of economic growth on environmental quality because the independent variable had a significant F count of 36.98280 with a significance level smaller than 0.05. Thus, the results of the analysis in this study indicate that economic growth affected air quality. And based on the results of this study, the value of adjusted R-squared was obtained at 0.925837 or 92.58%. This shows that 92.58% environmental quality such as air was influenced by economic growth, while the remaining 7.42% was explained by other variables.

The estimation results show that economic growth had a significant effect on air quality in a quadratic function, but not in accordance with the Kuznet Curve Environment theory, because the coefficient of Y2 was positive (+), although small. The relationship between economic growth and the air quality index was not proven to follow the U (not inverted) curve hypothesis. This means that the curve describing the relationship between economic growth and the water quality index in Indonesia was not like the letter U. It can be said that the early stages of economic growth would be followed by a decrease in air quality to a certain extent, but after going beyond certain limits, the economic growth would increase, followed by an increase in the air quality index, which was very slow.

3) The Relationship between Economic Growth and Forest Cover

The estimation model of the relationship between economic growth and the forest cover quality index was obtained as follows:

$$\text{Forest Cover} = 70.05 - 5.882-5 \text{ GRDP} + 2.258-14 \text{ GRDP}^2$$

R-squared	0.987292
Adjusted R-squared	0.980541
F-statistic	146.2403
Prob (F-statistic)	0.000000

This model was feasible for the estimation of the effect of economic growth on environmental quality because the independent variable had a significant F count of 146.2403 with a significance level smaller than 0.05. Thus, the results of the analysis in this study indicate that economic growth affected forest cover. And based on the results of this study, the value of Adjusted R-squared was obtained at 0.980541 or 98.05%. This shows that 98.05% of environmental quality such as forest cover was influenced by economic growth, while the remaining 1.95% was explained by other variables.

The estimation results show that economic growth had a significant effect on forest cover in a quadratic function, but was not in accordance with the Kuznet Curve Environment theory, because the coefficient of Y2 was positive (+), although small. It shows that the relationship of economic growth and the forest cover quality index was not proven to follow the U (not the inverse) curve hypothesis. This means that the curve describing the relationship between economic growth and the forest cover quality index in Indonesia was not like the letter U. It can be said that Indonesia in the Kuznet hypothesis was still in stage 1.

4) The Relationship between Economic Growth and Environmental Quality Index

The estimation model of the relationship between economic growth and the environmental quality index (EQI) was obtained as follows:

$$EQI = 79.588 - 7.442^{-5} GRDP + 2.526^{-11} GRDP^2$$

R-squared	0.979413
Adjusted R-squared	0.968476
F-statistic	89.55210
Prob (F-statistic)	0.000000

This model was feasible for the estimation of the effect of economic growth on the quality of the environment because the independent variable had a significant F count of 89.55210 with a significance level smaller than 0.05. Thus, the results of the analysis in this study indicate that economic growth affected the index of environmental quality. And based on the results of this study, the Adjusted R-squared value was obtained at 0.968476 or 96.68%. This shows that 96.68% of the index of environmental quality was influenced by economic growth, while the remaining 3.32% was explained by other variables.

The estimation results show that economic growth had a significant effect on the index of environmental quality in a quadratic function, but not in accordance with the Kuznet Curve Environment theory, because the coefficient of Y2 was positive (+), even though it was small. It shows that the relationship between economic growth and the index of environmental quality was not proven to follow the hypothesis of the U (not reverse) curve. This means that the curve describing the relationship between economic growth and the environmental quality index in Indonesia was not like the letter U. It can be said that Indonesia in the Kuznet hypothesis was still in stage 1.

The success of a country's economic development will be seen in the national income that can be achieved by the country, which is expressed in the form of GNP per capita. In the early stages of economic development, every country always strives to increase income in order to improve its welfare. When trying to increase that income, environmental interests are often overlooked. If at the initial stage of economic development environmental control is carried out strictly, it will have an impact on economic growth itself. Denison (1979) has conducted research on the relationship between environmental quality and economic activity. To estimate the effect of environmental regulation on American economic growth in the 1960s and 1970s, the growth accounting model was used. Denison's research found that about 0.04% of the 1.3% decline in economic growth in the United States was due to the application of environmental policies. Furthermore, Grossman and Krueger (1995) state that economic growth in the early stages led to a phase of decreasing environmental quality. Furthermore, the increase in income will lead to a phase of improving environmental quality. When economic development has succeeded in increasing people's income, the community will have the ability to improve and control the quality of the environment. In addition, the economic capabilities possessed by the community will also be used to carry out development in the field of education and health. The success of development in the field of education and health will be able to improve public awareness of the importance of healthy environmental quality. In a community that has environmental awareness there will be a need for a good environment, so that, in turn, the community will want to sacrifice the consumption of other goods for environmental protection. If the situation is reached, higher economic growth will be followed by the higher environmental quality index. When looking at the estimation results, the researchers believed that Indonesia would soon enter phase 2 in the Kuznets hypothesis, increasing the economic growth while slowing down the increase in environmental degradation. Researchers' belief was also strengthened by a very small Y_2 coefficient.

CONCLUSIONS

The index of the quality of the environment (water quality, air quality, and forest cover) in Indonesia in a descriptive analysis successively decreased in the period 2011–2013. This study shows that the Environmental Kuznet Curve (EKC) was not yet applicable in Indonesia in the case of the relationship between environmental quality index (water quality, air quality, and forest cover) and

economic growth. The researchers concluded that Indonesia was still in phase 1, which was at an early stage where the GDP increase was followed by a decrease in environmental quality index (EQI).

The government should formulate policies that can increase people's willingness to protect the environment while increasing economic growth.

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LECTURER PROFESSIONALISM DEVELOPMENT: A REVIEW OF SCIENCE PHILOSOPHY

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Abstract

This paper examined the nature of the professionalism development of lecturers from the perspective of the philosophy of science that includes the perspective of ontology, epistemology, and axiology. Viewed from the perspective of ontology, development of lecturer professionalism has met the criteria of scientific study. That is because the object of study of lecturer professionalism development can be studied empirically and meet the criteria of material and formal object. From the perspective of epistemology, lecturer professionalism development is an object of scientific study. Several approaches principles have been developed in the field of human resource development and will be applied in lecturer professionalism development. And finally, from the perspective of axiology, lecturer professionalism development can be seen from the benefit of lecturer professionalism development at the level of organization, individual, and community.

Keywords: professionalism development of lecturer, ontology, epistemology, axiology, science philosophy.

INTRODUCTION

Higher education is one means for every individual and society to meet educational needs, especially at the diploma, undergraduate, and postgraduate levels. In the Higher Education law, it is stated that higher education is a level of education after secondary education that includes diploma programs, undergraduate programs, master programs, doctoral programs, professional programs, and specialist programs organized by higher education institutions based on the culture of Indonesian nation.

As an organizer of higher education, a university must meet the qualifications set by the government through the National Education Standards Agency. The

National Education Standards serve as the basis for planning, implementing, and supervising education in the context of realizing quality national education that contains minimum criteria for learning at the tertiary level of higher education throughout the Republic of Indonesia. One standard that must be met by each college is the standard of lecturers and education staff. The standards of lecturers and education staff are the minimum criteria regarding the qualifications and competencies of lecturers and education staff to carry out education in order to fulfill graduate learning outcomes. With the fulfillment of these minimum requirements, it is expected that each lecturer will become a professional educator who is able to transform, develop, and disseminate knowledge, technology, and art through education, research, and community service.

Lecturer professionalism is related to the degree of commitment and performance of lecturers. The commitment and performance of the lecturer is always in the public spotlight. The low commitment and performance of lecturers will affect the quality of learning, and the low quality of learning will affect the quality of college graduates. Therefore, the development of professionalism of lecturers is a necessity so that the quality of learning and the quality of graduates always increase. Every university that provides services at the higher education level must provide professional teaching staff (lecturers).

In reality, the professionalism of lecturers is still a problem in Indonesia. For example, in 2010, there were still around 1,456,491 lecturers or around 63% of lecturers who still had to improve their academic qualifications to meet the demands of Government Regulation Number 19 of 2005 (Sajidan, 2010). Worse conditions occur in the professionalism of lecturers at Kopertis Region III Jakarta. In 2011, out of around 19,000 lecturers, around 11 percent had met the qualifications of new professional lecturers (Wiryanto, 2013). Furthermore, it was stated that in terms of the academic degree of the 19,000 lecturers, around 50 percent were still pursuing undergraduate diplomas, 45 percent were pursuing S2 degrees, and the remaining 5 percent were pursuing doctoral degrees. And the low qualifications of lecturers have a minimum impact on the first three things: scientific research activities see a decline caused by the low reading level of lecturers; most lecturers assume that their duties are only to convey knowledge to students; and many lecturers avoid critical dialogue with students (Zain in Suharto, 2011).

The above conditions indicate that there are still gaps between expectations that are reflected in various government regulations and the reality in the field, namely the real conditions of the quality of lecturers in Indonesia that still need to

be improved. In other words, there must be an effort to develop professionalism of lecturers in order to fulfill ideals as stated in Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers as well as Regulation of the Minister of Education and Culture No. 49 of 2014 concerning National Standards for Higher Education.

Starting from the description above, this paper will examine further the nature of the development of lecturer professionalism from the perspective of ontology, epistemology, and axiology.

METHOD

This paper is a conceptual framework based on a review of the literature relating to the development of lecturer professionalism and the philosophy of science.

RESULTS AND DISCUSSION

1. Philosophy Study of Professional Lecturer Development

As explained in the previous description, the study of philosophy must actually discuss about the three pillars supporting a philosophy of science: ontology, which talks about the nature of something through knowing what to say, what to explain, and what to translate; epistemology, which talks about knowing how to reshape (to reform) and to build; and axiology, which talks about the values to be achieved and how to use those values, including moral, aesthetic, and sociopolitical values (Solehodhin, 2012).

2. Professionalism development of Lecturers in a Review of Science Disciplines

Before we discuss further about aspects of the philosophy of lecturer professionalism development, we put the term professionalism development of lecturers first, with discipline being in accordance with their characteristics so that they can be used as a basis for the study of philosophy of science.

Based on Law of the Republic of Indonesia Number 14 of 2005 on Teachers and Lecturers, lecturers are professional educators and scientists with the main task of transforming, developing, and disseminating science, technology, and art through education, research, and community service.

Meanwhile, educators, according to Law of the Republic of Indonesia Number 20 of 2003 on the National Education System, are declared as qualified teaching staff as teachers, lecturers, counselors, tutors, *widyaiswara*, instructors, facilitators, and other designations that are in accordance with their specificity and participation in organizing education.

Based on the two definitions above, it can be stated that lecturers are people who work to transform, develop, and disseminate science, technology, and art. The profession has two aspects, namely professionalism as technical expertise and professionalism as professional ethics.

The next issue that needs to be studied is development. Regarding this development, according to Gilley and Egglund (1992), there are two questions that must be answered. First, what is desired from the development of people? Second, what kind of development actually occurs in an organization? Development of people refers to the improvement of knowledge, skills, and competencies and it develops the behavior of people in an organization concerning both personality and professionalism. Furthermore, Gilley and Egglund put the development of human resources into a context that reflects the relationship with the overall function of human resources or the concept of human resources. The concept of human resources starts from separating human resources into three broad categories, namely the utilization of human resources, the planning and forecasting human resources, and the development of human resources.

Use of human resources refers to the placement and utilization of human resources in the organization, including promotion, valuation, transfer, and compensation. Planning and forecasting human resources refers to the forecasting of future human resources and proper planning for recruitment, selection, training, and career advancement. Meanwhile, human resource development refers to preparation through learning activities of human resources for current and future tasks, including individual personal development. There are three focus areas of human resource development, namely training, development, and education. The expected outcomes of the three focuses are increasing knowledge, competence, skills, and attitudes, usefulness, and improvement.

According to Anggraeni (2012), the development of professionalism of lecturers is a core part of institutional development and includes most of personal development, professionalism development, organizational development, and community development. In more detail, the development of the lecturer profession includes:

- a. the development of authority standard competence or personality, maturity, and example;
- b. the development of professional competence or the ability of lecturers to master the content and methodology of teaching; and
- c. the development of social competence or the ability of lecturers to carry out social communication with both students and society. This social competency development includes 7 (seven) fields, namely:
 - 1) pedagogic competence;
 - 2) technical information;
 - 3) management/administration competence;
 - 4) curriculum competence;
 - 5) scientific competence (research and publication);
 - 6) evaluation competence; and
 - 7) personal competence.

By looking at the development aspects and outcomes of development activities on the development of professionalism of lecturers it can be said that the development of professionalism of lecturers is part of the development of human resources. Thus the development of human resources will be the object of a philosophy of science study which includes the study of ontology, epistemology, and axiology.

a. Ontology of Professional Lecturer Development

Based on the philosophy of ontology, the field of study of science limits itself to facts or events that are empirical in nature, namely the study space that humans can think rationally and can be observed through and tested by the five human senses. Something is said to exist as science if its existence can be felt through the five human senses. Likewise, when the professionalism development of lecturers will be used as a field of study of science, we must be sure that the existence of the professionalism development of the lecturer can truly be felt through the five human senses, be it through rational thought, observation, or testing.

The ontology aspect of lecturers' professionalism development is part of the philosophy of science. As a study of science, the professionalism development of lecturers must fulfill the requirements of two main types of objects, namely material objects and formal objects (Endraswara, 2013). Material objects are things that are targeted by thought, something that is learned or what the subject matter is. Material philosophical objects of science are facts and truths in a

scientific discipline, namely knowledge that has been systematically arranged with certain scientific methods, so that the truth can be justified in general, whereas formal objects are perspectives or ways to review material objects. A formal object is an approach used to a material object, so characteristic that it characterizes or specializes the field of the activity concerned.

In terms of material objects, the development of lecturer professionalism is part of the development of human resources, while the development of human resources is a function of human resource management disciplines. In management science, the main principle of organizing an organizational activity is to meet the requirements of effectiveness and efficiency. Likewise, the implementation of human resource (HR) development activities must meet the principles of effectiveness and efficiency. Therefore, for HR development activities to run according to the principles of effectiveness and efficiency, it must follow certain norms, methods, or systems that have been developed before. For example, Ronald R. Sim in Yusuf and Suwarno (2013) states that in order for HR development to improve performance, HR development must be designed using job analysis information related to what is needed to do the job.

Meanwhile, viewed from formal objects, professionalism development of lecturers is an attempt to improve the four domains of competence, namely pedagogic competence, personality competence, social competence, and professional competence. Pedagogic competence is the ability of lecturers to manage learning; personality competence is the standard of authority, maturity, and exemplary; social competence is the ability of lecturers to communicate socially with students and the wider community; professional competence is the ability of lecturers to master the content and learning methodology. In more detail, Anggraeni (2013) states that professionalism development of lecturers includes three competencies, namely:

- 1) authority standard competence or personality, maturity, and example;
- 2) professional competence or the ability of lecturers to master the content and methodology of teaching; and
- 3) social competence or the ability of lecturers to carry out social communication with both students and society. This social competency includes 7 (seven) fields, namely:
 - a) pedagogic competence;
 - b) technical information;
 - c) Management/administration competence;
 - d) curriculum competence;

- e) scientific competence (research and publication);
- f) evaluation competence; and
- g) personal competence.

Based on the description of material and formal objects on the professionalism development of lecturers, it can be said that the development of professionalism of lecturers fulfills the criteria for the study of science, especially from the perspective of ontology philosophy.

b. Epistemology of Lecturer Professionalism Development

1) Definition of Development

Based on epistemological philosophy, to obtain the truth and objectivity of a science it must go through a certain process called the scientific method. Scientific method is a procedure to gain knowledge called science, which in this context is the science of human resource development.

Before discussing the scientific method to develop the professionalism of lecturers, it is necessary to understand in advance the notion of development. There are two notions of development in this context, namely the notion of development in general, where lecturers are human resources, and the notion of developing lecturing as a profession.

In general, Gilley and Egglund (1992) state that the development of human resources (HR) is to increase knowledge, skills, and competencies and to develop the behavior of people in an organization both for their personal and professionalism development. While Yusuf and Suwarno (2013) define HR development as an organized learning activity in organizations in order to improve performance and/or personal growth with the aim of increasing employment, individuals, and/or organizations. HR development covers the fields of training and development, career development, and organizational development.

In particular, lecturer development is an integrated effort to help lecturers gain welfare, knowledge, skills, harmony, and sensitivity in carrying out learning and research activities (Amir, 2010).

2) Development Method

According to Sy-Zain in Suharto (2011), there are seven programs that can be used to increase the professionalism of lecturers, namely

- a) Development of pedagogical competence. Competence is related to good and appropriate teaching methods so as to facilitate the learning process and

increase the effectiveness of learning. To improve pedagogical skills, lecturers need to be given training related to teaching methods in higher education, including the following:

- discussion method;
- case study method;
- tutorial method;
- team teaching method; and
- lecture method.

- b) Development of information engineering competencies. Educational experts see that mastery of information technology as very influential on the success in managing learning in higher education. The development of this conference requires support with regard to the following:
- availability of technological facilities and equipment, such as computers, videos, projectors, and the Internet;
 - availability of related content and materials; and
 - training on how to use information technology tools.
- c) Development of management/administrative competencies. Lecturers need intensive and continuous training on general management, tertiary management, education strategies, education planning, HR management, and conflict management.
- d) Curriculum competency development. Training in curriculum development related to the development of science and technology and the needs of stakeholders is provided.
- e) Development of Muslim competence (research and publication). Lecturers are required to conduct scientific research and publication through scientific journals.
- f) Evaluation competency development. Learning evaluation training is a form of commitment to the quality of learning. Training programs include the following:
- modern philosophy training and evaluation theory in the field of education;
 - training on evaluation techniques and models; and
 - training on how to prepare evaluation plans and implementation mechanisms.
- g) Development of personal competencies. It is a program to improve the personal integrity of lecturers.

c. Axiology of Lecturer Professionalism Development

Axiology is a branch of philosophy which deals with values. From the axiological aspect, the professionalism development of lecturers must be able to answer questions about what benefits can be donated to the community from the results of the development program. The benefits here are not only seen from the physical aspect, but also seen from the ethical/moral, aesthetic, and social aspects.

As a lecturer front liner, it determines the quality of learning and graduates of a higher education institution. Qualified lecturers will be able to increase respect for the educational institutions in which they work. Therefore, through the development of lecturer professionalism in general it is expected to provide benefits for the institutions, communities, and individuals concerned. Specifically, in accordance with the demands of the law, lecturers who perform well must provide benefits especially in the following:

- 1) implementation of education, research, and community service;
- 2) planning, implementation of the learning process, and evaluation of the learning outcomes;
- 3) continuous improvement and development of academic qualifications and competencies in line with the development of science, technology and art;
- 4) having an objective, not discriminatory, attitude in learning activities;
- 5) upholding the laws and regulations, codes of ethics, and religious and ethical values;
- 6) maintaining and fostering a sense of national unity and unity; and
- 7) career progress and self-development of lecturers.

In addition, lecturers who have been successfully through development will also be able to do the following:

- 1) understanding how students develop and learn, so that they are able to apply various learning theories that they have pursued in the class they manage, and by understanding the characteristics of students, they will be able to foster student self-esteem and provide appropriate motivation to each individual student;
- 2) understanding the fields of science and expertise taught, so that they are able to organize the teaching of the field of science well and wisely;
- 3) developing teaching strategies according to the needs of students with diverse backgrounds and abilities;
- 4) understanding the learning progress of students, both individually and in groups, and knowing how to communicate the success of learning to students;

- 5) being modeled as an example for students related to success in the field of science and career; and
- 6) contributing actively in the development and dissemination of knowledge through various media and scientific forums.

CONCLUSION

From the description above it can be concluded that in terms of the philosophy of science, the development of professionalism of lecturers is as follows:

1. From the ontology aspect, it is said that the development of lecturers' professionalism fulfills the criteria for the study of science because the object of the study of the development of lecturer professionalism can be studied empirically and meets the criteria of material and formal objects. Material objects are facts and truths in the discipline of HR development as the parent of the development of lecturer professionalism, which has been systematically arranged academically since the beginning of the 1970s, so that the truth can be justified. While in terms of formal objects, it is proven through an analysis of the development of lecturer professionalism based on the principles of effective and efficient management.
2. From the epistemology aspect, it can be said that the development of lecturer professionalism is the object of the study of science. It is based on the method of developing professionalism of lecturers based on the scientific method. Some approaches that have been developed in the field of human resource development will be applied in the development of lecturer professionalism.
3. From the axiological aspect, it is also stated that the development of lecturer professionalism can be seen as an object of the study of science. This can be seen from the benefits of the development of lecturer professionalism at the organizational, individual, and community levels.

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