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Article

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Reference: Osro, Zulkifli/Lumbanraja, Prihatin et. al. (2018). The analysis of personality and work ability on the performance of outsourcing employees with work motivation as intervening variable at Pt Inalum (Persero) in Kuala Tanjung. In: Academic journal of economic studies 4 (2), S. 90 - 104.

This Version is available at:
<http://hdl.handle.net/11159/2186>

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The Analysis of Personality and Work Ability on the Performance of Outsourcing Employees with Work Motivation as Intervening Variable at Pt Inalum (Persero) in Kuala Tanjung

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Abstract One of the factors for good achievement is employees' best performance. Performance is a work result in quality and quantity achieved by an employee or a group in performing the duties. The level of employees' performance is influenced by several factors such as personality, capability and motivation. This research has purpose to identify and analyze the influence of personality and capability toward outsourcing employees under supervision of General Affairs Department in PT Inalum (Persero) Kuala Tanjung, North Sumatera, Indonesia. The type of this research is descriptive correlation which means describing free and bound variables, and analyzing the correlation of both variables to figure out the contribution of each variable. Meanwhile, the nature of this research is an explanatory research describing the phenomena which happen at research objects regarding the influence of personality and capability toward outsourcing employees with motivation as an intervening variable. The population of this research is all outsourcing employees under supervision of General Affairs Department as many as 301 persons, and 172 persons as sample of this research with the margin error α 5%. The data are collected by interview, questionnaire and documentation study. The data were analyzed by using path analysis and the research result has showed that the variables of personality and capability simultaneously have positive and significant effects to outsourcing employees' performance through motivation, and partially the personality and capability positively and significantly effects to outsourcing employees' performance in PT Inalum (Persero) Kuala Tanjung..

Key words Personality, capability, motivation, performance

JEL Codes: J21, J24, M54, M55

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1. Introduction

One of the main problems faced in most companies is related to employee performance. According to Mangkunegara (2011), performance is the result of work in terms of quality and quantity that has been achieved by an employee in performing his/her duties in accordance with the responsibilities given. The maximum performance of employees can certainly have an effect on the disrupted company's operational activities. In order to maximize the employees' performance, it is necessary to know the influencing factors of the high performance of an employee. According to Wexley and Yukl (2000), Shobaruddin, a translator, identifies the influencing factors of employees' performance, among others, the work discipline and motivation. In this study, work discipline factor will be examined in the scope of employees' personality while other factors that become additional objects of study were work ability and motivation. The purpose is to see whether there is any very significant effect between personality and work ability and motivation to the expected performance. According to Uno (2008), work motivation is one of the factors that helps determine someone's performance. The magnitude of someone's work motivation depends on how much motivation intensity is given to the employee. The issuance of the policy to employ outsourced employees is based on the Law of the Republic of Indonesia number 13 of 2003 concerning Labor. Along with the law, there are many outsourcing companies, the companies engaged in active employment providers offering to employer companies, established, so that companies that require labor do not need to perform recruitment, selection and training to the required labor (Gunarto, 2006).

Currently, such phenomenon of recruiting outsourced employees is increasingly popular during the global economic crisis that hit almost all countries in the world including Indonesia. With the growing number of contracted workers, it does not mean that all employees can show good performance as well as the outsourced employees in PT Inalum Persero in which there are many problems found that indicate the low performance of outsourced employees, such as, insufficient ability, ignorant personality towards responsibilities and honesty and low work motivation. The average performance of outsourced employees in 2016 was still relatively moderate at 70%, as from 9 types of work, there were only 22,2% which have stable performance for 3 consecutive years, i.e., Incinerator Operators and Drivers, while the types of work that has increased from the previous year for 55,5% were Mowers, Office Boys, Waste Collectors, Telephone Operators, Drivers and Security Officers and the remaining 22,3% had decrease in performance from the previous year, they were Garden Keepers and

Janitors. As a result of the violation of this work, many employees were given a verbal warning and warning letter (SP) and some were returned to the management company due to negligence in carrying out the duties that caused losses to PT Inalum Persero due to the loss of some assets of the company and employees. The Warning Letter and Returning were conducted as the implementation of *reward and punishment* for outsourced employees as anyone who violates the work will be given sanctions and anyone who makes any achievement will be awarded. There was a considerable number of employees given the Warning Letter and returned to the management for the above two years in terms of Personality and Work Ability of about 18,9% compared to the current number of outsourced employees of 301 employees. The percentage of problems in terms of work motivation in 2014 was 9.6% and 5.9% in 2015 which illustrated the low motivation of outsourced employees as shown by the many inconsistencies and overdue works in the workplace for various reasons.

2. Literature review

2.1. The influencing factors of personality

According to Robbin (2007), there are four influencing factors of personality, they are; *Heredity, Environment, Situation, and Life experience*. According to Gibson (2001), work ability is the potential condition possessed by an employee in carrying out the work assigned to him/her in earnest, efficient and effective in carrying out the work. Such ability is possessed by all employees at any level, although the ability is at different levels. A low-level employee has more effectiveness if he/she has greater technical ability than others. Eysenck (in Alwisol, 2004) distinguishes personality into two types:

- a. Type Introvert is to have more orientation into him and tends to close them from the outside world.
- b. Type Ekstrovert that has the orientation outside himself more than into himself. The extrovert is primarily influenced by the world outside of himself.

The orientation is mainly focused on the thoughts, feelings and actions that are influenced by the environment, both social and non-social environment. He is positive towards his society; his heart is open, easy to get along, relations with others smoothly (Suryabrata, 2003). An employee with an escalated personality has a more positive attitude than a negative and forward-looking or results-oriented end or performance. Supporting or favoring a job means having a positive, positive attitude towards the job. Based on the explanation of personality according to the experts above, it can be concluded that the personality is essentially an individual characteristic that shows the tendency of identity through thoughts, emotions, and behaviors that are interactions between genetic and environmental influences.

2.2. Motivation

Work Motivation is an encouragement from employees to perform a work. With a high work motivation, employees will be encouraged to perform their best that will have an effect on their performances, as the higher the motivation, the higher the performance. The *expectancy theory* proposed by Victor H Vroom (Thoha, 2002) states that people or employees will be motivated to work or willing to do certain things if they are confident that from such achievement they will expect a great reward. Vroom explains that motivation is the multiplication between valence and expectancy. According to Hezberg, (in Randupandojo and Husnan, 2005) a behavioral scholar argues that "satisfaction consists of two things, namely motivational (intrinsic) and maintenance (extrinsic)".

1. Motivational Factors

Motivational factors are factors that cause satisfaction in employees. These factors include a) creative and challenging developments, b) achievements, c) rewards, d) responsibilities, e) increased possibilities, e) progress. When associated with Maslow's theory of needs hierarchy, these motivational factors are related to the needs of the upper order.

2. Maintenance Factors (Extrinsic).

Maintenance factors are factors that cause dissatisfaction in employees. These factors include: a) the status of interpersonal relationships with superiors, b) subordinates and peers, c) supervision in corporate administration, d) work ability, e) working conditions, f) remuneration, personal life. From the above understanding can be concluded that the meaning of work motivation is something that can cause the spirit or encouragement of working individuals or groups of work to achieve goals (Dalimunthe *et al.*, 2016; Situmorang *et al.*, 2017; Hutagalung *et al.*, 2017; Lubis *et al.*, 2017; Agustina *et al.*, 2018). Employee motivation is a condition that makes employees has the will or the need to achieve certain goals through the implementation of a task. Employee motivation will supply energy to work or direct activity during work, and cause an employee to know of a relevant purpose between organizational goals and personal goals.

According to Mc Clelland human needs that can motivate the passion of work are grouped into three namely:

- 1) The need for achievement, the employee will be enthusiastic for high achievement, as long as the possibility for it is given a chance, one realizes that by only achieving high performance can earn a large income, with a large income he can meet his needs.
- 2) The need for one's affiliation because the affiliate's needs will motivate and develop themselves and utilize all of its energies.
- 3) The need for power, this need is the driving force that motivates the morale of an employee. Human ego who wants to rule more than other human beings will lead to competition, this competition by managers grown in a healthy way to motivate subordinates to be motivated to work diligently.

According to Toha (2002), states that Abaraham Maslow in theory needs Hierarchy to say that motivation is based on the level of needs that are arranged according to the priority of its strength.

- 1) Physiological needs, first and foremost needs that must be fulfilled by each individual. It is this primary need that encourages every individual to do any job, because he will get reward, either in the form of money, or goods to be used to meet this main need;
- 2) The need for security or protection, every individual wants security for himself, including his family;
- 3) The need for togetherness or social, each individual always needs to associate with each other;
- 4) The need for respect or respect, each individual performs a job or activity that enables him to gain respect and respect for society;
- 5) Self-actualization needs, the highest peak needs, so that one wants to maintain its performance optimally.

The expectancy theory proposed by Victor H Vroom (in Thoha, 2002) argues that people or employees will be motivated to work or willing to do certain things, if they are confident that out of that achievement they will expect a large reward. Vroom explains that motivation is the multiplication of valence and expansion. Valence is the power of one's desire for a thing while expansion is the possibility that one's actions will lead to the desired result. Valiancy is said to be nil if an employee does not care about achieving a particular goal. Negative negativity is that if an employee prefers not to achieve a particular goal as a result there is no work motivation, otherwise valence is said to be positive if an employee can choose and prefer the achievement of a particular goal. While the expression is said to be nil or negative it indicates that there is no possibility that a result will be achieved after a certain action, whereas a positive expectation of the possibility that a result will occur after a certain action has taken place. So simply this Vroom theory assumes that one's work motivation in an organization depends on its expectations. From the various opinions of experts mentioned above, it can be concluded that the motivation of work is the impulse that arises from within a person and / or impulse from the outside that causes the process of thinking someone to do something.

2.3. Performance

According to Wexley and Yukl (2000), the translator Muh Shobaruddin identifies the influencing factors of employee performance, among others, work discipline and motivation. Work discipline is required to have good performance, with high discipline the employees will strive to do the job as maximum as possible and the performance will be better. According Mangkunegara (2011) performance is the result of work in quality and quantity that has been achieved by an employee in performing their duties in accordance with the responsibilities given to him. According to Rivai and Fawzi (2005) Performance is the work achieved by a person or group of persons within an organization, in accordance with their respective powers and responsibilities, in an effort to achieve the objectives of the organization in a legal, unlawful, with morals and ethics. According to Mathis and Jackson (2002) employee performance system seeks to identify, encourage, measure, evaluate, improve, and reward employees' performance. Human resources have an important role in an organization to achieve the desired goals. Thus it is necessary human resources that have better performance. According to Gie (1999) and Muda *et al.* (2017) states that performance is largely determined by work motivation, work ability, equipment and facilities, external environment, Leadership, Strategy mission, Corporate culture, individual and organizational performance, Management practice, Structure and Work climate.

The more competent the skills and expertise of each employee, will affect the achievement of performance results (Muda and Dharsuky, 2015). So also with motivation, where motivation is a psychological factor that will encourage employees in decision making to do the job. The stronger motivation inherent in the employee, the better the resulting performance. In Robbins's opinion, (2001) the level of employee performance will depend on two factors: employee ability and work motivation. The level of ability will be able to affect employee performance results where the higher level of employee ability will result in higher performance as well. Measurement of performance according to Simamora (2004) and Muda (2017) is a management tool to improve the quality of decision making and accountability. According Sedarmayanti (2007) performance measurement instrument is a tool used in measuring the performance of an individual employee that includes:

- a. Work Achievement, the work of employees in performing the task, both in quality and quantity of work.
- b. Expertise, level of technical ability possessed by employees in carrying out the tasks assigned to him. This expertise can be in the form of cooperation, communication, initiative, and others.
- c. Attitudes, attitudes and attitudes of employees are attached to him and carried in carrying out his duties. Understanding the behavior here also includes honesty, responsibility, and discipline.
- d. Leadership, is an aspect of the ability of managerial and art in giving influence to others to coordinate the work appropriately and quickly, including decision-making, and priority setting.

According to Mondy, (2008) Performance Assessment is a formal system to assess and evaluate the performance of individual or team tasks. According to Mangkunegara (2011); Gusnardi *et al.* (2016) and Dalimunthe *et al.* (2016) Performance evaluation is a systematic assessment to find out the results of employee work and organizational performance. According to Robbins (2007) there are six criteria in the performance assessment include:

- a. Quality of work, is the result of near perfect activity in the sense of adjusting some ideal way of performing activities or meet the expected goals of an activity. The quality of work is measured by employee perceptions of the quality of work produced and the perfection of tasks to the skills and abilities of employees.
- b. Quantity of work, is the amount generated, expressed in terms such as number of units, number of activity cycles completed by employees and the amount of activity generated.
- c. Timeliness is the level of an activity completed at the beginning of the desired time viewed from the point of coordination with the output and maximizing the time available for other activities. Timeliness is measured from employee perceptions of an activity completed at the beginning of time until it becomes output.
- d. The effectiveness of the level of use of organizational resources (energy, money, technology, raw materials) is maximized with the intention of increasing the profitability of each unit in the use of resources, work effectiveness, employee perceptions in performing the task, the effectiveness of the completion of tasks determined company.
- e. Independence is the level an employee can perform its job function without asking for help, supervisory guidance, or supervisor involvement interferes with the employee's work to avoid adverse outcomes.
- f. Work commitment is a work commitment of employees with the company and the responsibility of employees to the company. Measurement using employee perceptions in fostering relationships with companies and responsibilities, loyalty to the company.

There are several methods of appraising employee performance in an organization or company. According to Rivai (2005) states that the methods that can be used are several methods to assess work performance in the past, and almost all of these techniques are an attempt to minimize the specific problems encountered in these approaches. By evaluating past work performance, employees get feedback on their efforts. This feedback can then lead to improvements in achievement. Based on the explanation about the understanding of performance by some experts above it can be concluded that the performance is the achievement of a person both quantity and quality because in carrying out the work by utilizing existing resources within a certain period. While factors that may affect employee performance include individual factors (work ability and discipline), psychological factors (personality, attitude and motivation) and organizational factors (structure, division of labor and leadership).

3. Methodology of research

3.1. Type and nature of research

This research is a correlational descriptive research. According to Sekaran (2006) and Nasution *et al.* (2018), correlational descriptive research is a research that describes the independent and dependent variables, then performs a correlational analysis between both variables so that it can be known how far the contribution of the dependent and independent variables (Suriadi *et al.* 2015; Syahyunan *et al.* 2017; Sirojuzilam *et al.* 2017; Sihombing *et al.* 2017; Tarmizi *et al.* 2016; 2017; Yahya *et al.* 2017; Muda *et al.* 2018). The nature of this research is explanatory research that occurs in the object of research about the influence of personality and work ability to outsourcing employee performance with work motivation as intervening variable at PT. Inalum Persero Kuala Tanjung.

3.2. Population and sample

Research population is a collection of objects determined through a certain criteria that will be categorized into the object can include people, documents or records that are viewed as research objects. According to Margono (2010; Kesuma *et al.* 2018; Pohan *et al.* 2018; Lubis *et al.* 2018; Marhayanie *et al.* 2018; Muda, 2018). Population is all data that concern us in a

scope and time that we specify. According Sugiyono (2012) population is a generalization region consisting of: objects or subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions. The population in this study was all outsourced employees outsourcing under the supervision of the Department of General of PT Inalum Persero which amounted to 301 employees working in several divisions. Primary Data is data obtained by searching or digging directly from the source by the researcher concerned (Badaruddin *et al.* 2017; Achmad *et al.* 2017). While the research variables are shown in the following table:

Table 1. The Operationalization of Research Variables

| Variable | Definition | Dimension | Indicator | Measurement |
|-----------------------------------|---|---|--|--------------|
| Personality (X ₁) | Personality is an individual characteristic consisting of consistent patterns of thoughts, feelings and behaviors on outsourced employees in PT Inalum Persero | 1. Thoughts 2. Feelings 3. Behavior | 1. Positive thinking 2. Giving suggestions 3. Considering the work risk 4. Being oriented to the results 1. Emotional control 2. Understanding the wishes of other parties 3. Having empathy 1. Being honest 2. Having job responsibilities 3. Having work discipline 4. Having good and polite ethics 5. Being proud of the work done 6. Being skillful in doing the job | Likert Scale |
| Work Ability (X ₂) | Work Ability is the potential condition possessed by an employee in carrying out the work assigned to him/her in earnest, efficient and effective in carrying out the work. | 1. Interaction Ability 2. Conceptual Ability 3. Technical Ability | 1. Having good communication with superiors 2. Maintaining good relationships with colleagues 3. Being able to handle problems at work 1. Being able to understand the work schedule well 2. Being able to carry out work instructions well 3. Being able to understand the rules in the workplace well 1. Being able to use the work supporting equipment well 2. Being able to understand when the condition of the work equipment is feasible to use 3. Being able to carry out work without waiting for any instruction. | Likert Scale |
| Motivation (Y ₁) | Motivation is the satisfaction of outsourced employees who work in PT Inalum Persero which consists of two, namely motivational (intrinsic) and maintenance (extrinsic). | 1. Intrinsic Motivation 2. Extrinsic Motivation | 1. Award 2. Opportunity for self-actualization 3. Desire to have achievement 4. Larger responsibility 5. Job satisfaction 1. Work environment condition 2. Safety at work 3. Wise leader 4. Wages according to Government regulations 5. Incentive 6. Health insurance 7. Sanctions for the violators | Likert Scale |

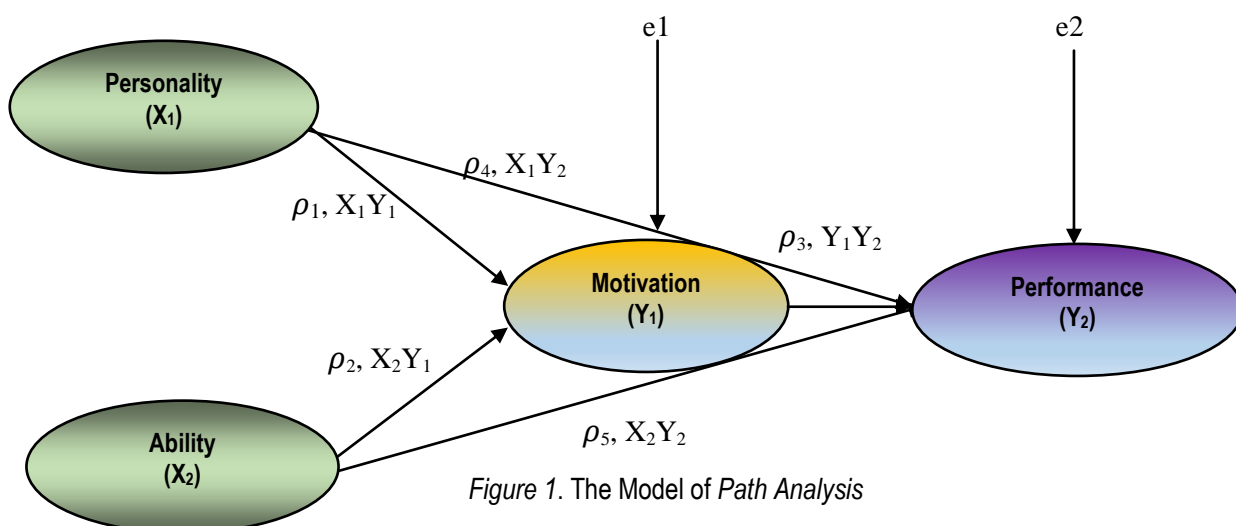
| Variable | Definition | Dimension | Indicator | Measurement |
|-------------------------------|---|---|---|--------------|
| Performance (Y ₂) | Performance is the result of work in terms of quality and quantity that has been achieved by an employee in performing his/her duties in PT Inalum Persero in accordance with the responsibilities given. | 1. Work Quality 2. Work Quantity | 1. Doing the job well and correctly 2. Good condition of the company's assets 3. Good work operation 4. No complaints from consumers 1. Completing the job on time (effectively) 2. Performing work efficiently 3. Being able to reach the set target | Likert Scale |

In this study the measurement using Likert scale. According Sugiyono (2012); Lubis *et al.* (2016) and Muda *et al.* (2018) Likert scale is used to measure attitudes, opinions and perceptions of a person or group of people about social phenomena. Likert scale variables will be measured and translated into indicator variables, and then the indicator is used as the basis for preparing the items of the instrument that can be a question or statement. The researcher gave five alternative answers to the respondents using a scale of 1 to 5 (Muda and Hasibuan, 2018; Muda and Windari, 2018). In order to reduce the central tendency of data collection in this study and the range between agreeing to disagree, the "neutral" option is changed to "less agree". Score interval scale of respondent's explanation can be seen by:

1. Strongly agree/always/very good/very positive given score (5)
2. Agreed/often/good/positive/scored (4)
3. Less Agree/sometimes/good enough/neutral given score (3)
4. Disagree/almost never/good/negative score (2)
5. Strongly disagree/never/good/negative score (1)

Testing the validity and reliability of the instrument performed on 30 outsourced employee respondents working in PT Inalum (Persero) which is not included in the sample research. With a minimum number of 30 respondents the distribution of scores (values) will be closer to the normal curve. This assumption is indispensable in statistical calculations. Validity and Reliability Testing instrument performed with the help of SPSS software. If the test results in the can be valid and reliably statistically it can be concluded the quality of data used quite well. According Sugiyono, (2012) and Muda *et al.* (2018) validity test is to determine the level of validity of the instrument questionnaire used in data collection.

This validity test is conducted to find out whether the items presented in the questionnaire are really able to express with certainty what will be examined. According Sugiyono (2012); Muda and Rafiki (2014) and Muda *et al.* (2014) if the value of the validity of each question is greater than the value of correlation coefficient (r) 0.30 then the questionnaire is considered valid. Validity test is done by one-time method (one shot method) where the measurement with this method is done only once. After the correlation value (r) is obtained then determines the value of r -count to test the validity level of the research measuring instrument. After the value of r -count is obtained, the next step is to compare the r -count value with the r -table value at significance level of $\alpha = 0,05$ and degrees of freedom (dk) = $n-2$. If the Corrected Item-Total Correlation value of each question is greater than 0.30 then the question item is considered valid. The established Theoretical Framework:



$$\text{First Structural Equation: } Y_1 = \rho_{11}X_1Y_1 + \rho_{12}X_2Y_1 + \varepsilon \quad (1)$$

$$\text{Second Structural Equation: } Y_2 = \rho_{23}Y_1Y_2 + \rho_{24}X_1Y_2 + \rho_{25}X_2Y_2 + \varepsilon \quad (2)$$

Where:

X_1 = The first exogenous variable (Personality); X_2 = The second exogenous variable (Work Ability);

Y_1 = The first endogenous variable (Motivation); Y_2 = The second endogenous variable (Performance);

ε = residual (*error disturbance*); $\rho_{\varepsilon 1}$ = Path Coefficient I with residual (ε_1); $\rho_{\varepsilon 2}$ = Path Coefficient II with residual (ε_2).

Mediation or intervening is the intermediate variable that serves to mediate the relationship between the independent variable and the dependent variable. To test the influence of mediation variables used path analysis method (path analysis). Path analysis alone cannot determine causal relationships and cannot be used as a substitute for researchers to see the causal relationship between relationships (Muda *et al.* 2018; Sihombing *et al.* 2018). What path analysis can do is determine the relationship pattern between three or more variables and cannot be used to confirm or reject the hypothesis of imaginary casualties. Inferential statistics or called inductive statistics is a data analysis technique of an object or population through the sample data drawn from that population (Sinulingga, 2014).

Classic Assumption Test

Classical Assumption Test is a requirement that must be fulfilled in linear least squares regression analysis based ordinary least square (OLS).

Normality Test

According to Sujarweni (2012); Lubis *et al.* (2018) and Muda *et al.* (2018) the normality test is to compare the data we have with normal distributed data having the mean and standard deviation equal to our data. Good data and feasible to be used in research is data that has a normal distribution. The normality of data can be seen using the Kolmogorov-Smirnov Normal test. Hypothesis:

H_0 : residual data is normally distributed

H_1 : residual data is not normally distributed

Using the level of significance (α) = 5% (Khalidun *et al.* 2014; Hasan *et al.* 2017; Lubis *et al.* 2017 and Muda *et al.* 2018). If the value of Asy-sig (2-tailed) > from the error level (0.05) then H_0 is received (residual data is normally distributed) otherwise if Asy-sig (2-tailed) < from error level (0.05) then H_1 is received (residual data is not normally distributed).

Multicollinearity Test

According Sujarweni (2012); Erlina *et al.* (2017); Ferine *et al.* (2017) and Handoko *et al.* (2017) suggests that multicollinearity test is needed to determine the presence or absence of independent variables that have similarities between independent variables in a model. The similarity between independent variables will result in a very strong correlation. A good regression model should not be correlated among independent variables. The regression model is said to be free of multicollinearity if the value of Variance Inflation Factor (VIF) ≤ 10 , and tolerance value ≥ 0.1 (Ghozali: 2011; Maksum *et al.* 2014; Mahdaleta *et al.* 2016; Lutfi *et al.* 2016; Lubis *et al.* 2016; Marhayanie *et al.* 2017; Azlina *et al.* 2017).

Heteroscedasticity Test

Heteroscedasticity tests the occurrence of residual variance differences over a period of observation to another observation period. According to Sujarweni (2012); Nurlina and Muda (2017); Nasir *et al.* (2017); Sadalia *et al.* (2017); Muda *et al.* (2018) stated that: "If the variance of the residual one observation to another observation remains, then it is called homoscedasticity and if different is called heteroskedasitas". A good regression model is homoscedasticity or does not occur heterokedasitis. The heteroskedasity test is done by Glejser Test, by meregres all independent variables with absolute residual value (absut) as the dependent variable (Marhayanie *et al.* 2017; Lubis *et al.* 2017; Muda, 2017; Syahtunan *et al.* 2017; Sihombing *et al.* 2018; Sirojuzilam *et al.* 2018). If the value of significance > 0.05, then there is no heterokedastisity.

Coefficient of Determination Test (R^2)

The coefficient of determination essentially measures how far the model's ability to explain variations of independent variables. The coefficient of determination is between zero and one (Muda and Hutapea, 2018). The small value of R^2

means the ability of the independent variables to explain the variation of the dependent variable is very limited. A value close to one means the independent variables provide almost all the information needed to predict the variation of the dependent variable.

Path Analysis (Path Analysis)

In this research the analytical method used is Path Analysis. Path Analysis is a technique of causality analysis where independent variables directly influence dependent variables or indirectly (Rutherford in Sinulingga, 2014; Muda, 2018; Tripriyono *et al.* 2018; Muda *et al.* 2018). Some of the requirements underlying the Path Analysis (Schumaker and Lomax in Sinulingga, 2014; Muda and Naibaho, 2018; Muda *et al.* 2018) are as follows:

1. The relationship between the independent variable and the dependent variable must be linear (direct and indirect linear relationship) and is a cause and effect relationship.
 2. Between independent variables (causal variables) there is no multicollinearity or if any should be of low value.
 3. The data used to analyze must be scaled interval (interval scaled data). If variables are measured on a nominal or ordinal scale then they must be transformed into the interval scale.
 4. The variables under study must be observable and measured directly (measureable).
- b. All residual variables ie variables that are not measured do not correlate with any of the existing variables.
- c. The nature of relationships between variables only one direction in the sense of not happening each other affect (looping).

4. Results and discussions

4.1. Results

The descriptive statistics can be seen in the following Table 2:

Table 2. Descriptive statistics

| | N | Range | Minimum | Maximum | Mean | Std. Deviation |
|--------------------|-----|-------|---------|---------|-------|----------------|
| Personality | 172 | 21 | 44 | 65 | 52.92 | 5.107 |
| Work_Ability | 172 | 17 | 28 | 45 | 36.04 | 3.508 |
| Work_Motivation | 172 | 21 | 39 | 60 | 49.47 | 4.518 |
| Performance | 172 | 18 | 17 | 35 | 27.31 | 2.949 |
| Valid N (listwise) | 172 | | | | | |

Source: Results of Research, 2017 (processed data).

4.1.1. The Effect of Personality on Work Motivation

Table 3. Results of t Test of the Effect of Personality on Work Motivation

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-----------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 12.396 | 2.565 | | 4.833 | .000 |
| Personality | .199 | .065 | .225 | 3.065 | .003 |
| Work_Motivation | .736 | .095 | .571 | 7.774 | .000 |

a. Dependent Variable: Work_Motivation

Source: Results of Research, 2017 (Processed Data).

The table shows the partial effect of personality on work motivation of the employees. The test was conducted to determine whether the regression coefficient (ρ_1) value is significant or not. The results obtained that the comparison of $t_{\text{count}} = 3,065 > t_{\text{table}} 1.653$ or significance value = $0.003 < \alpha = 5\%$, then H_1 is accepted, means that Personality (X_1), partially, have positive and significant effect on work motivation (Y_1) of outsourced employees at PT Inalum (Persero).

4.1.2. Direct Effect, Indirect Effect and Total Effect

Direct Effect

- 1) The effect of Personality (X_1) on Work Motivation (Y_1):

$$X_1 \rightarrow Y_1 = \rho_1 X_1 = 0,225$$

2) The effect of Work Ability (X_2) on Work Motivation (Y_1):

$$X_2 \rightarrow Y_1 = \rho_2 X_2 = 0,571$$

3) The Effect of Personality (X_1) on Employee Performance (Y_2):

$$X_1 \rightarrow Y_2 = \rho_4 X_1 = 0,168$$

4) The effect of Work Ability (X_2) on Employee Performance (Y_2) :

$$X_2 \rightarrow Y_2 = \rho_5 X_2 = 0,184$$

5) The direct effect of Work Motivation (Y_1) on Employee Performance (Y_2) can be formulated as follow:

$$Y_1 \rightarrow Y_2 = \rho_3 Y_1 = 0,305$$

Indirect Effect

1) Personality (X_1) has indirect effect on Employee Performance (Y_2) through work motivation (Y_1), as follow:

$$X_1 \rightarrow Y_1 \rightarrow Y_2 = (\rho_1)(\rho_3) = (0,225)(0,305) = 0,068$$

2) Work Ability (X_2) has indirect effect on Employee Performance (Y_2) through work motivation (Y_1), as follow :

$$X_2 \rightarrow Y_1 \rightarrow Y_2 = (\rho_2)(\rho_3) = (0,571)(0,305) = 0,174$$

Total Effect

$$\text{Total Effect } (X_1) = \text{direct effect} + \text{indirect effect} = \rho_4 + (\rho_1 \times \rho_3) = 0,168 + (0,225 \times 0,305) = 0,168 + 0,068 = 0,236$$

$$\text{Total Effect } (X_2) = \text{direct effect} + \text{indirect effect} = \rho_5 + (\rho_2 \times \rho_3) = 0,184 + (0,571 \times 0,305) = 0,184 + 0,174 = 0,358$$

The results above show that the total effect is the result of direct effect (0,184) added by indirect effect (0,174). The results of path coefficient analysis overall in this study can be seen in the following Figure 2:

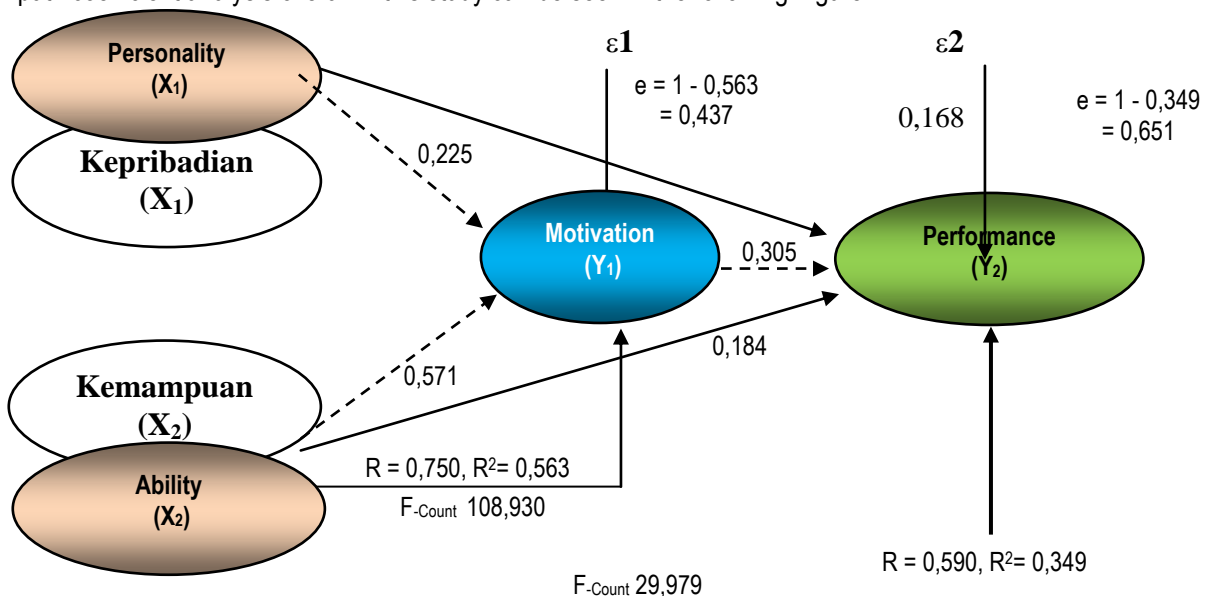


Figure 2. Diagram of the Path Analysis of Equation II

From the processing of SPSS data and Figure, the equation II is formulated as follow:

$$\begin{aligned} \text{Equation II} \quad Y_2 &= \rho_3 Y_1 + \rho_4 X_1 + \rho_5 X_2 + \epsilon_2 \\ Y &= 0,305 Y_1 + 0,168 X_1 + 0,184 X_2 + 0,651 \epsilon \end{aligned}$$

4.2. Discussions

From the description above, it can be concluded that the improvement of work ability must be balanced with the training and guidance consistently by the company and the leadership, so that the employees can develop their ability more quickly and create improvement work for operationalization and work efficiency which will ultimately have impact on performance improvement. The high motivation of an employee is able to give a positive effect on the results of his/her work. The higher the motivation, the better the results. The results above are also in line with the study conducted by Judge and Kammeyer-Mueller (2007), which stated that personality owned by employees will lead individuals to be motivated to have a specific job. From the results of the discussion above, it can be concluded that the performance is the result of any work done by someone, as the high and low performance of an employee is determined by how much motivation he/she has.

It can be concluded that an employee with good ability will be more easily motivated to improve his/her performance. The ability of employees in managing themselves, the environment, and their work will lead to better morale to be motivated to move forward. Motivation will be perceived by the employees when their ability to work can help them through various obstacles in the work, employees will be more motivated to do work more maximum and faster. In order to improve employee performance, improvement of motivation factor can be done. Good attitude and personality and have positive thoughts on all policies made by superiors will be easier on the motivation than the personality tend to be less good. The results above are also in line with the theory of Colquitt (2009) which explains that the *job performance* is affected by *motivation*. The results of study conducted showed that the work ability in PT Inalum (Persero) has very dominant effect on performance directly and indirectly through work motivation. Theoretically, motivation can relate the influence of work ability to performance, but work motivation as intervening variable has less influence in improving performance compared with independent variable (personality variable and work ability). This means that when an employee has good work ability in work will give good results also to improve performance directly. The results of research conducted showed that in PT Inalum (Persero) work ability is very dominant influence performance directly and through work motivation variable. The majority of respondents tend to answer agree on the suitability of work skills owned by employees with the type of work done primarily for the statement "understand the procedures in the workplace well" the majority of 90% of employees answered agree. Soeroto (1992) states that to improve the work skills of employees there are three components that include:

- a. Efforts to develop and nurture spiritual and physical growth and health care efforts. If a person has strong physical and psychic growth then he or she will have great potential and opportunity to grow and develop his work ability.
- b. Efforts are not just limited to the ratio and physical ability to solve problems encountered in the short term, will still include resilience, physical and mental resilience in overcoming difficulties and pressures in the work to complete and achieve results.
- c. Efforts for someone after having the ability to work is to hire him to make any organization that has the ability to be used to provide prosperity to the community.

Robbins (2006) that works ability directly affects employee performance through suitability of ability with work. According to Robbins (2006) the ability of individuals is the capacity of individuals to perform various tasks in a particular job. Gibson, (2002) states the ability as a potential possessed by a person to perform the work and tasks so that the results achieved in accordance with expected expectations. According Soehartono (2004) motivation is a desire or desire that appears in the employee that raises the spirit or drive to work optimally in order to achieve goals. According to Gomes (2003) states the factors that affect the individual's motivation are individual needs, goals, attitudes and abilities. This research is also in line with Setiawan *et al.* (2010) states the ability and competence have a positive and significant effect on work motivation.

5. Conclusions and suggestions

5.1. Conclusions

1. Personality has direct effect on Work Motivation of the outsourced employees.
2. Work Ability has direct effect on work motivation of the outsourced employees.
3. Personality has direct effect on Performance of the outsourced employees.
4. Work Ability has direct effect on Performance of the outsourced employees.
5. Work Motivation has direct effect on Performance of the outsourced employees.
6. Personality has indirect effect on Performance of the outsourced employees.
7. Work Ability has indirect effect on Performance of the outsourced employees.

5.2. Suggestions

1. The results showed that some employees did not agree to stop working after the siren buzzing, it identified that there are still many outsourced employees who have not agreed or do not agree to comply with work discipline. Therefore, the researcher suggested to PT Inalum (Persero) to remind all outsourcing companies, so that all employees are willing to comply with the applicable working regulations.
2. It is suggested to the head of the outsourcing companies to provide equipment and safety equipment to employees in accordance with applicable regulations. This suggestion is based on the respondent's answers stating that the company has not fully met the needs of equipment and safety equipment to its employees.
3. For the future researcher, it is suggested to examine the variables that have some effect on the performance other than personality, ability and motivation, such as equipment and work facilities, external environment, leadership, strategic mission, corporate culture, management practice, structure and work environment.

References

- Achmad, N; and Muda, I. (2017). Economic Activities of Karo Older Adults in Lingga Village, Tanah Karo Regency, North Sumatera, Indonesia. *International Journal of Economic Research*. 14(16). 365-379.
- Agustina. T. A. S., Lubis and Muda., I., (2018). Various Aspects of The Implementation of SIMDA Which Influence The Quality of Financial Statement with The Role of PPK-SKPD as Moderating Variable (A Case Study at The SKPD of Deli Serdang Regency). *Advances in Economics, Business and Management Research (AEBMR)*. 46. 176-183.
- Alwisol (2004). *Personality Psychology*, UMM Press, Malang
- As'ad, M., (1995). *Human Resource Science Series: Industrial Psychology*, Fourth Edition, Liberty Publisher, Yogyakarta.
- Askarian, N. (2013). The Relationship between Personality Traits and Job Performance (Case Study: Employees of the Ministry of Education of Kerman), Islamic Azad University, Yazd, Iran. *Interdisciplinary Journal of Contemporary Research in Business*, 5(8),
- Augusty, F. (2002). *Structural Equation Modeling, in Management Research*, FE UNDIP, Semarang.
- Awadh, A.Mohammad and Wan Ismail, Wan Khairuzzaman (2012). The Impact of Personality Traits and Employee Work-Related Attitudes on Employee Performance with the Moderating Effects of Organizational Culture: The Case of Saudi Arabia, *Asian Journal of Business and Management Sciences* ISSN: 2047-2528 Vol. 1 No. 10, www.ajbms.org.
- Azlina, N. A.Hasan, Desmiyawati and Muda, I. (2017). The Effectiveness of Village Fund Management (Case Study at Villages in Coastal Areas in Riau). *International Journal of Economic Research*. 14(12). 325-336.
- Badaruddin; Revida, E; Ermansyah and Muda, I. (2017). Village Governance With Implementation of Law Number 6 of 2014 On The Village and Village Administration. *International Journal of Economic Research*. 14(16). 350-363.
- Chen, Su-Chang, Wu, Ming-Chung, (2010). Employee's Personality Traits, Work Motivation and Innovative Behavior in Marine Tourism Industry, National Penghu University, Penghu, Taiwan, China. *J. Service Science and Management*, 2010,3,198-205, doi: 10.4236 / jssm.2010.32024, <http://www.SciRP.org/journal/jssm>.
- Colquitt, J. A., Jeffrey A. LePine, Michael J. Wesson (2009). *Organizational Behavior Improving Performance and Commitment in the Workplace*, McGraw Hill, New York.
- Daft, Richard L. (2006). *Management*, Sixth Edition, Volume Two, Salemba Empat, Jakarta.
- Dalimunthe, D.M.J., and Muda, I. (2017). The Empirical Effect of Education and Training to the Performance of Employees. *International Journal of Applied Business and Economic Research*. 15(24). 5423-5437.
- Dalimunthe, D.M.J., Fadli, and Muda, I. (2016). The application of performance measurement system model using Malcolm Baldrige Model (MBM) to support Civil State Apparatus Law (ASN) number 5 of 2014 in Indonesia. *International Journal of Applied Business and Economic Research*. 14(11). 7397-7407.
- Devi, E.K.D. (2009). *Influence Analysis of Job Satisfaction and Motivation on Employee Performance with Organizational Commitment as Intervening Variable (Study on Outsourcing Employees of PT Semeru Karya Buana Semarang)*, Diponegoro University, Semarang.
- Erlina, A.Saputra and Muda, I. (2017). Antecedents of Budget Quality Empirical Evidence from Provincial Government In Indonesia. *International Journal of Economic Research*. 14(12). 301-312.
- Erlina. A.Saputra and Muda, I. (2017). The Analysis of the Influencing Factors of Budget Absorption. *International Journal of Economic Research*. 14(12). 287-300.
- Ferine, K.F; Ermiaty, C. and Muda, I. (2017). The Impact Of Entrepreneurship And Competence On Small Medium Enterprises Tangan Di Atas (TDA) Medan Entrepreneurs' Work Performance. *International Journal of Economic Research*. 14(16). 380-393.
- Ghozali, I. (2011). *Application of Multivariate Analysis with SPSS Program*, Fifth Edition, Diponegoro University Publishing Agency, Semarang.
- Gibson, James L. John M.I, Donely, J.H. (2001). *Organizational Behavior Structure Process*, Inter Script, Jakarta.
- Gie, Liang The, 1999. *Modern Office Administration*, Liberty, Yogyakarta.
- Ginting, R.R., (2009). *Physical Ability Analysis and Employee Mental Ability to Employee Performance at PT Askes (Persero) Regional I, USU, Medan*.
- Gunarto, S. (2006), *Legal Protection for Outsourcing Contract Workers*, Atma Jaya University, Yogyakarta.

- Gusnardi, Riadi, R.M., and Muda, I. (2016). Competency mapping and analysis of students competency based on economics subject national examination and its alternative solutions in state high schools at Pekanbaru. *International Journal of Economic Research*. 3(5). 2133-2148.
- Handoko, ,Bagus. Sunaryo and Muda, I. (2017). Difference Analysis of Consumer Perception of Motorcycle Product Quality. *International Journal of Economic Research*. 14(12). 363-379.
- Handoko, T.H. (2004). *Personnel and Human Resource Management*, Second Edition, Eleventh Printing, Publisher Faculty of Economics (BPFE), Yogyakarta.
- Hasan, A, Gusnardi and Muda, I. (2017). Analysis of Taxpayers and Understanding Awareness Increase in Compliance with Taxpayers Individual Taxpayers. *International Journal of Economic Research*. 14(12). 75-90.
- Hasibuan, M.H. (2007). *Organization and Motivation: Basis for Productivity Improvement*, Bumi Aksara, Jakarta.
- Hutagalung, B.; Dalimunthe, D.M.J, R., Pambudi, A.Q. Hutagalung and Muda, I. (2017). The Effect of Entrepreneurship Education and Family Environment Towards Students' Entrepreneurial Motivation. *International Journal of Economic Research*. 14(20). 331-348.
- Judge, 2010, *The Influence of Personality, Attitudes, and Leadership on Creative Performance in Organization University of North Sumatra*, USU, Medan.
- Judge, T. A, John. D. Kammeyer-Mueller (2007). *Personality and Career Success, Handbook of Career Success*, Sage Publication, California.
- Keitner, R., Kinicky, A., (2013). *Organizational Behavior*, Salemba Empat, Jakarta.
- Kesuma, S, I., Erlina and Muda, I. (2018). Influence of Beverages and Tobacco Export and Raw Material Export on the Economic Growth. *Emerald Reach Proceedings Series*. Vol. 1 pp. 335–341. Emerald Publishing Limited. ISSN. 2516-2853. DOI 10.1108/978-1-78756-793-1-00060.
- Kesuma, S, I., Erlina and Muda, I. 2(018). Influence of Natural Rubber Latex Export and Food and Animals Export to the Economic Growth. *Emerald Reach Proceedings Series*. Vol. 1 pp. 607–613. Emerald Publishing Limited. ISSN. 2516-2853. DOI 10.1108/978-1-78756-793-1-00061.
- Khaldun, K.I. and Muda, I. (2014). The Influence of Profitability And Liquidity Ratios on The Growth of Profit of Manufacturing Companiesa Study of Food And Beverages Sector Companies Listed on Indonesia Stock Exchange (Period 2010-2012). *International Journal of Economics, Commerce and Management*. 2(12). 1-17.
- Kuncoro, M. (2009). *Research Methods for Business and Economics*. edition 3, Jakarta, Erlangga Publishers.
- Lubis, A., Rustam and Muda, I. 2016. Factors Affecting The Cost of Agency of Village Owned Enterprise (BUMDES) in Indonesia. *International Journal of Economic Research*. 14(16). 334-348.
- Lubis, A., Rustam and Muda, I. (2018). Analysis of Ownership and Stock Composition of Vocational Business Enterprises (BUMDES) and Its Impact on "Omset" of Business Owned Enterprises. *Advances in Economics, Business and Management Research (AEBMR), 1st Economics and Business International Conference 2017 (EBIC 2017)*. 46. 274-277.
- Lubis, A.,Torong, Z.B., and Muda, I. (2016). The urgency of implementing balanced scorecard system on local government in North Sumatra – Indonesia. *International Journal of Applied Business and Economic Research*. 14(11). 7575-7590.
- Lubis, A.F., Lubis, T.A., and Muda, I. (2016). The role of Enterprise Resource Plan (ERP) configuration to the timeliness of the financial statement presentation. *International Journal of Applied Business and Economic Research*. 14(11). 7591-7608.
- Lubis, W.N. (2015). *Analysis of Leadership Influence, Work Ability and Motivation on Employee Performance UPT V On Revenue Office Area Medan*, USU, Medan.
- Lutfi, M.,Nazwar, C., and Muda, I. (2016). Effects of investment opportunity set, company size and real activity manipulation of issuers in Indonesia Stock Exchange on stock price in Indonesia. *International Journal of Economic Research*. 13(5). 2149-2161.
- Mahdaleta, Ela; Muda, I and Muhammad, G. (2016). Effects of Capital Structure and Profitability on Corporate Value with Company Size as the Moderating Variable of Manufacturing Companies Listed on Indonesia Stock Exchange. *Academic Journal of Economic Studies*. 2(3). 30–43.
- Maksum, A., Hamid, R., and Muda, I. (2014). The Impact of Treasurer's Experience And Knowledge on The Effectiveness of The Administration and Preparation of The Accountability Reporting System in North Sumatera. *Asian Journal of Finance and Accounting*, 6(2), 301-318. <http://dx.doi.org/10.5296/ajfa.v6i2.6341>.
- Mangkunegara, Prabu, A. (2011). *Human Resources Performance Evaluation*, PT Refika Aditama, Bandung.
- Margono (2010). *Educational Research Methodology*, Rineka Cipta, Jakarta.
- Marhayanie, M. Ismail and Muda, I. (2018). Impact of Smartphone Features on "Omset" Services Online Car Rental. *Advances in Economics, Business and Management Research (AEBMR)*. 46. 278-281.
- Marhayanie, M. Ismail and Muda, I. (2017). Impact of the Online Car Rental Service Order System on Sales Turnover with Financial Literacy Customer as Intervening Variables. *International Journal of Economic Perspectives*. 14(16). 317-332.
- Mathis, Robert L and H. Jackson (2002). *Human Resource Management*, Book I, First Edition, Salemba Four, Jakarta.
- Misha, Y. and Hassan (2015). Study on Prudential Assurance Malaysia Berhad (PAMB): The Effect of Employee Personality on Organizational Performances, Malaysia. Vol. 1 (No.1), ISSN: 2289-4519, <http://www.ftms.edu.my/journals/index.php/journals/ijabm>.
- Mondy, R. W. (2008). *Human Resources Management*, Volume 1, Tenth Edition, Erlangga, Jakarta.
- Muda, I and A. A. F. Hutapea (2018). Influence of capital expenditure and income original region to the income per capita in Indonesia. *IOP Conference Series: Earth and Environmental Science*. 2018. 126 doi:10.1088/1755-1315/126/1/012065.

- Muda, I and A.Dharsuky (2016). Impact of Capital Investments and Cash Dividend Policy on Regional Development Bank (BPD) PT. Bank Sumut to the District Own Source Revenue and Economic Growth. *International Journal of Applied Business and Economic Research*, 14(11). 7863-7880.
- Muda, I and Abykusno Dharsuky (2015). Impact of Region Financial Information System (SIKD) Quality, Role Ambiguity And Training on Precision of Financial Statement of Local Government Presentation In North Sumatra. *International Journal of Applied Business and Economic Research*, 13(6). 4283-4304.
- Muda, I, D.Y.Wardani, Erlina, A.Maksum, A. F.Lubis and R. Bukit (2017). The Influence of Human Resources Competency and The Use of Information Technology on The Quality of Local Government Financial Report with Regional Accounting System as an Intervening. *Journal of Theoretical and Applied Information Technology*. 95(19), 1432-1451.
- Muda, I, Dharsuky. A., Siregar, H.S., and Sadalia, I. (2017). Combined loading and Cross-dimensional loadings timeliness of presentation of financial statements of local government. *IOP Conference Series: Materials Science and Engineering*. 180. doi: 10.1088/1757-899X/180/1/012099.
- Muda, I, F Roosmawati, H S Siregar, Ramli, H Manurung and T Banuas (2018). Performance Measurement Analysis of Palm Cooperative Cooperation with Using Balanced Scorecard. *IOP Conference Series. Materials Science and Engineering 2017*. 288. 012081 doi: 012081 doi:10.1088/1757-899X/288/1/012081.
- Muda, I, M. Ismail and Marhayanie (2017). Impact Allocation Capital Expenditure on The Improvement of the Local Government Assets in North Sumatra and Effect on Local Revenue Sustainability. *International Journal of Economic Perspectives*. 11(2). 151-164.
- Muda, I, M.Sihombing, E.Jumilawati and A. Dharsuky (2016). Critical Success Factors Downstream Palm Oil Based Small And Medium Enterprises (SME) In Indonesia. *International Journal of Economic Research*. 13(8). 3531-3538.
- Muda, I, M.Sihombing, E.Jumilawati and A.Dharsuky. (2017). Factors Affecting The Success of Local Innovation Systems With Government Programs As Moderators. *International Journal of Economic Research*. 14(16). 272-289.
- Muda, I, Rahmanta, Marhayanie and Putra, A.S. (2018). Institutional Fishermen Economic Development Models and Banking Support in the Development of the Innovation System of Fisheries and Marine Area in North Sumatera. *IOP Conference Series : Materials Science and Engineering*. 2017.288. doi:10.1088/1757-899X/288/1/012082.
- Muda, I, Rahmanta, S. Adi and Marhayanie (2017). The Role of Working Capital, Productivity, Applied Technology and Selling Market Prices on Fisherman's Revenues. *International Journal of Economic Research*. 14(16). 291-302.
- Muda, I., Erlina, Rina Bukit and Rahmanta (2015). The Effect of Fiscal Potential, Fiscal Needs and Internal Control on The Provincial Intergovernmental Transfer Allocation In The Districts/Cities in North Sumatera – Indonesia. *International Journal of Management Sciences and Business Research*. 3(10). 22-35.
- Muda, I., H S Siregar, S A Sembiring, Ramli, H Manurung and Zein, Z. (2018). Economic Value of Palm Plantation in North Sumatera and Contribution to Product Domestic Regional Bruto. *IOP Conference Series. Materials Science and Engineering 2017*. 288. 012080 doi: 10.1088/1757-899X/288/1/012080.
- Muda, I. (2010). Contribution of Teluk Nibung Port Tanjung Balai Asahan to the Local Revenue of Tanjung Balai City. *Journal of Economics and Business*. 9(1). 17-28.
- Muda, I. (2014). Analysis on the Timeliness of the Accountability Report by the Treasurer Spending in Task Force Units in Indonesia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(4). 176-190.
- Muda, I. and A. Rafiki (2014). Human Resources Development and Performance of Government Provincial Employees: A Study in North Sumatera, Indonesia. *Journal of Economics and Behavioral Studies*. 6(2).152-162.
- Muda, I., and Rasdianto, M.S.L. (2014). Implementation of the Cash Revenue System: A Case Study in the Local Government Task Forces' Units of North Sumatera Province, Indonesia. *Information Management and Business Review*, 6(2). 96-108.
- Muda, I., (2017). Perception of capital, profit and dividends affect the stock purchase intention in Indonesia public company. *Junior Scientific Researcher*, 3(1). 9-18.
- Muda, I., (2017). The Effect of Allocation of Dividend of the Regional Government-Owned Enterprises and the Empowerment Efforts on the Revenue of Regional Government: The Case of Indonesia. *European Research Studies Journal*. XX(3A). 223-246.
- Muda, I., (2017). The Effect of Supervisory Board Cross-Membership and Supervisory Board Members' Expertise to The Disclosure of Supervisory Board's Report: Empirical Evidence From Indonesia. *European Research Studies Journal*. XX(3A). 702-716.
- Muda, I., (2018). Influence of Assets and Investments on Investment Yield Sharia Insurance in Indonesia. *Emerald Reach Proceedings Series*. Vol. 1 pp. 563–569. Emerald Publishing Limited. ISSN. 2516-2853. DOI 10.1108/978-1-78756-793-1-00059.
- Muda, I., (2018). Influence of Gross Domestic Product and Population on the Investment Yield Sharia Insurance in Indonesia. *Emerald Reach Proceedings Series*. Vol. 1 pp. 517–522. DOI 10.1108/978-1-78756-793-1-00055.
- Muda, I., and A. H. Harahap, Erlina, S.Ginting, A. Maksum and E.Abubakar (2018). Factors of quality of financial report of local government in Indonesia. *IOP Conference Series: Earth and Environmental Science*. 2018. 126 doi:10.1088/1755-1315/126/1/012067.
- Muda, I., and A. N. Hasibuan (2018). Public Discovery of the Concept of Time Value of Money with Economic Value of Time. *Emerald Reach Proceedings Series*. Vol. 1 pp. 255–261. DOI 10.1108/978-1-78756-793-1-00050.
- Muda, I., and Nurlina (2018). Influence of Manufacture of Non-metals, Except Petroleum and Coal, and Manufacture of Basic Metals on Economic Growth. *Emerald Reach Proceedings Series*. Vol. 1 pp. 185–192. DOI 10.1108/978-1-78756-793-1-00049.
- Muda, I., and Nurlina (2018). Influence of Manufacture of Textiles, Clothing and Leather and Manufacture of Paper, Printing and Publishing to The Economic Growth. *Emerald Reach Proceedings Series*. Vol. 1 pp. 105–111. DOI 10.1108/978-1-78756-793-1-00048.
- Muda, I., and R.Naibaho (2018). Variables influencing allocation of capital expenditure in Indonesia. *IOP Conference Series: Earth and Environmental Science*. 2018. 126. doi:10.1088/1755-1315/126/1/012066.

- Muda, I., and Windari (2018). Dimension of an Islamic Model Value on the Existence of Syariah Walmart. *Emerald Reach Proceedings Series*. Vol. 1 pp. 321–326. Emerald Publishing Limited. ISSN. 2516-2853. DOI 10.1108/978-1-78756-793-1-00051.
- Muda, I., M. Khaddafi., and A.Kholis (2018). Influence of Population, Gross Domestic Product, Government Sukuk and Sharia Mutual Funds on the Investment Yield Sharia Insurance in Indonesia. *Emerald Reach Proceedings Series*. Vol. 1 pp. 379–385. Emerald Publishing Limited. ISSN. 2516-2853. DOI 10.1108/978-1-78756-793-1-00052
- Muda, I., M. Khaddafi., and M.Heikal (2018). Influence of Government Sukuk and Sharia Mutual Funds on the Investment Yield Sharia Insurance in Indonesia. *Emerald Reach Proceedings Series*. Vol. 1 pp. 429-435. DOI 10.1108/978-1-78756-793-1-00053.
- Muda, I., M. Khaddafi., and M.Heikal (2018). Influence of Sharia Stock and Corporate Sukuk on the Investment Yield Sharia Insurance in Indonesia. *Emerald Reach Proceedings Series*. Vol. 1 pp. 473-479. DOI 10.1108/978-1-78756-793-1-00054.
- Muda, I., Panjaitan, S.R, Erlina, S. Ginting, A. Maksum and E. Abubakar (2018). Model application of Murabahah financing acknowledgement statement of Sharia accounting standard No 59 Year 2002. *IOP Conference Series: Earth and Environmental Science*. 2018. 126 doi:10.1088/1755-1315/126/1/012071.
- Muda, I., Rafiki, A., and Harahap, M.R. (2014). Factors Influencing Employees' Performance: A Study on the Islamic Banks in Indonesia. *International Journal of Business and Social Science*, 5(2). 73-80.
- Muda, I. (2017). Role of Dividend of Power to Buy Shares in Companies in Indonesia Stock Exchange. *Academic Journal of Economic Studies*. 3(2), 41–47.
- Muda, I. (2017). User Impact of Literacy on Treatment Outcomes Quality Regional Financial Information System. *Management Dynamics in the Knowledge Economy*. 5(2). 307-326; DOI 10.25019/MDKE/5.2.08.
- Muda, I; M. Weldi; Siregar, H.S, and Indra, N. (2017). The Analysis of Effects of Good Corporate Governance on Earnings Management in Indonesia with Panel Data Approach. *Iranian Economic Review*. 21(4). 657-669.
- Muda, I., R. B., Nasution, Erlina., H.S. Siregar and S. Katircioglu (2018). The Effect of the Existence of Large and Medium Industries on the Absorption of Labor in Sumatera Utara. *Advances in Economics, Business and Management Research (AEBMR), 1st Economics and Business International Conference 2017 (EBIC 2017)*. 46.253-257.
- Muda, I., Rahmanta, Marhayanie, and A.S. Putra (2018). Institutional Fishermen Economic Development Models and Banking and Financing Institution Support in the Development of the Innovation System. *Advances in Economics, Business and Management Research (AEBMR)*, 46. 263-268.
- Nasir, A. Yesi Mutia Basri, Kamaliah and Muda, I. (2017). Effectiveness of Potential Tax Region as the Real Local Revenue Sources in Riau Coastal Area. *International Journal of Economic Research*. 14(12). 313-324.
- Nasution, R.B., Muda, I., Erlina, Siregar, H.S. and Katircioglu, S. (2018). Variation of Industrial Type Contributions on Working Performance. *Advances in Economics, Business and Management Research (AEBMR), 1st Economics and Business International Conference 2017 (EBIC 2017)*. 46. 258-262.
- Nurlina and Muda, I. (2017). The Analysis of the Effects of Capital Expenditure and Human Development Index on Economic Growth and Poverty in East Aceh Regency. *International Journal of Economic Research*. 14(16). 395-409.
- Nurzaimah, Rasdianto and Muda, I. (2016). The skills and understanding of rural enterprise management of the preparation of financial statements using Financial Accounting Standards (IFRs) financial statement on the Entities without Public Accountability (ETAP) framework on the implementation of village administration law. *International Journal of Applied Business and Economic Research*. 14(11). 7417-7429.
- Petri, H.L. (1981). *Motivation Theory and Research*, Wadsworth publishing company, Belmont, California.
- Pohan, N., Badaruddin, R.F. Dalimunthe, A. Purwoko, and Muda, I. (2018). The Effects of Human Resource Development and Institutional Arrangements on Performance, Service Quality and Area Development in Indonesia. *Quality Access to Success*. 19(163). 94-102.
- Pully, P.A. (2007). *A Research Study of Intrinsic and Extrinsic Motivation in Supposition to The Self-Directed Workers in an Industrial Application*, Carbondale, USA.
- Randupandojo and Husnan, S. (2006). *Organizational Behavior: Basic Concepts and Applications*, Raja Grafindo Persada, Jakarta.
- Rasdianto, Nurzaimah and Muda, I. (2014). Analysis on the Timeliness of the Accountability Report by the Treasurer Spending in Task Force Units in Indonesia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*. 4(4). 176–190. <http://dx.doi.org/10.6007/IJARAFMS/v4-i4/1304>.
- Rivai, V. and Mohd Basri, F.A. (2005). *Performance Appraisal*, First Printing, PT. Raja Grafindo Persada, Jakarta.
- Robbins, P. Stephen and Timothy A. Judge (2014). *Organizational Behavior*, Book 1, Twelfth Edition, Salemba Four, Jakarta.
- Robbins, P. Stephen (2007). *Organizational Behavior Concept Controversy Application*, PT. Prehallindo, Jakarta.
- Sadalia, Isfenti. Nur Ahmadi Bi Rahamani and Muda, I. (2017). The Significance of Internet Based Financial Information Disclosure on Corporates' Shares in Indonesia. *International Journal of Economic Research*. 14(12). 337-346.
- Saputra, A.D. (2014). *Influence Analysis of Individual Ability and Work Environment on Job Satisfaction with Motivation as Intervening Variable at State Polytechnic of Lhokseumawe*, USU, Medan
- Sarwono, J. (2007). *Path Analysis for Business Research with SPSS*, Andi Offset, Yogyakarta.
- Sedarmayanti (2007). *Human Resource Management Bureaucratic Reform and Employee Management*, First Printing, Refika Aditama, Bandung.
- Sekaran, U. (2006) *Research Methodology for Business*, Issue 4, Book 1, Salemba Four, Jakarta.
- Siagian, S.P. (2012). *Motivation Theory and Its Application*, Rineka Cipta, Jakarta

- Sihombing, M., Muda, I., Jumilawati, E., Dharsuky, A. (2015). The Implementation of Oil Palm Based Regional Innovation System (SIDA) In Supporting The Masterplan For The Acceleration And Expansion Of Indonesia's Economic Development (MP3EI) of The Economic Corridor Of Sumatera-Indonesia. *European Journal of Business and Innovation Research*. 3(5),13-24.
- Sihombing, M., Muda, I., Jumilawati, E. and Dharsuky, A. (2018). Effectiveness of Market Results Diversified Palm Products and Constraints of Capital, Financing and Marketing. *Advances in Economics, Business and Management Research (AEBMR)*. 46. 269-273.
- Simamora, H. (2004). *Human Resource Management*, STIE YKPN, Jakarta.
- Simanjuntak (2012). *Personality Influence Analysis on Employee Performance at Carrefour Citra Garden Padang Bulan Medan*, USU, Medan.
- Simanjuntak, J. P. (2011). *Management and Performance Evaluation*, Third Edition, FEUI, Jakarta.
- Simanjuntak, J.P. (2005). *Performance Management and Evaluation*, FE UI, Jakarta
- Simbolon, P. (2012). *Influence Analysis of Work Discipline, Work Motivation And Working Ability Of Employee Performance At PT Garuda Plaza Hotel Medan*, USU, Medan.
- Sinuhaji, E. (2011). *Personality Improvement Analysis, Work Ability And Work Motivation Of Human Resource Outsourcing At PT. Catur Karya Sentosa Medan*, USU, Medan.
- Sinulingga, S. (2014). *Research Methods*, Third Edition, USU Press, Medan.
- Sirojuzilam, H.S., and Muda, I. (2016). Identification of factors of failure of Barisan Mountains Agropolitan area development in North Sumatera – Indonesia. *International Journal of Economic Research*. 13(5). 2163-2175.
- Sirojuzilam, H.S., and Muda, I. (2017). Effect of Private Collaborative as a Moderation of Success of Agropolitan Program. *International Journal of Economic Research*. 14(16). 304-315.
- Sirojuzilam., H.S., and Muda, I. (2018). Role of Planning And Budget to The Development of Agropolitan Area. *Advances in Economics, Business and Management Research (AEBMR)*, 46. 138-142.
- Situmorang, S.H, E.S Rini and Muda, I. (2017). Customer Experience, Net Emotional Value and Net Promoter Score on Muslim Middle Class Women in Medan. *International Journal of Economic Research*. 14(20). 269-283.
- Situmorang, S. H. and Muchlis, L. (2014). *Data Analysis: For Management and Business Research*, Third Edition, USU Press, Medan.
- Soehartono (2004). *Strategic Human Resource Management*, Amus Publisher, Yogyakarta
- Soeroto (1992). *Development Strategy and Job Opportunity Planning*, 2nd Edition, UGM Press, Yogyakarta.
- Son (2012). *Personality Influence Analysis Based on Big Five Model on Employee Performance Grand Darussalam Hotel Recidencess Syariah Medan*, USU, Medan.
- Subiantoro N. (2011). *Influence Analysis of Intellectual Ability, Physical Ability and Personality on Employee Performance at State Savings Bank (Persero) Medan Branch*, USU, Medan.
- Sugiyono (2012). *Business Research Methods, Matter of the Twelve*, Alfabeta, Bandung.
- Suhendi and Anggara (2010). *Employment Assessment and Employee Development Assessment*, BPFE, Yogyakarta.
- Sujarweni, W.V. (2012). *SPSS For Parametric*, Mold I, Gava Media, Yogyakarta.
- Sukmadinata, N. S. (2011). *Educational Research Methods*, PT Remana, Bandung.
- Suriadi, A.R., Mahalli, K., Achmad, N. and Muda, I. (2015). The Applicative Model of The Village_Owned Enterprises (BUMDES) Development In North Sumatera. *Global Journal of Arts, Humanities and Social Sciences* 3(12), 48-62.
- Suryabrata, S. (2003). *Personality Psychology*. Rajawali Press, Jakarta.
- Syahyunan, Muda- I, Siregar, H.S. Sadalia, I. and Chandra- G. (2017). The Effect of Learner Index and Income Diversification on The General Bank Stability In Indonesia. *Banks and Bank Systems*. 12(4). 171-184.
- Tarmizi, H.B.,Daulay, M and Muda, I. (2016). The influence of population growth, economic growth and construction cost index on the local revenue of tax on acquisition of land and building after the implementation of law no. 28 of 2009. *International Journal of Economic Research*. 13(5). 2285-2295.
- Tarmizi, HB., Daulay, M., and Muda, I. (2017). Impact of the Economic Growth and Acquisition of Land to The Construction Cost Index in North Sumatera. *IOP Conference Series: Materials Science and Engineering*. 180. doi: 10.1088/1757-899X/180/1/012004.
- Thoha, M. (2002). *Leadership in Management A Behavioral Approach*, Publisher Raja Grafindo Persada, Jakarta.
- Tripriyono., A. Purwoko., Erlina and Muda, I. (2018). The Effect of the Political Environment and The Economic Environment on The Welfare of Community. *Advances in Economics, Business and Management Research (AEBMR)*, 1st Economics and Business International Conference 2017 (EBIC 2017). 46. 49-53.
- Umar, H. (2002). *Business Research Methods*, First Printing, Publisher PT. Gramedia Pustaka Utama, Jakarta.
- Uno, H.B. (2008). *Motivation Theory and Its Measurement: Analysis in the Field of Education*, Earth Script, Jakarta.
- Wexley, K., N and Yukl, G. (2000). *Organizational Behavior and Psychology and Personnel Psychology*, Rineke Cipta, Jakarta.
- Wibowo, 2007, *Performance Management*, 1st Edition, Raja Grafindo Persada, Jakarta.
- Yahya, I, Torong, Z.B., and Muda, I. (2017). Influence Behavior in Legislature Budget Development of Regions in the Province of Aceh and North Sumatra. *International Journal of Economic Research*. 14(8). 147-159.
- Yakasai, A.M. and Tahir, M.J. (2015). *The Impact of Big Personality Traits on Salespeople's, Performance: Exploring the Moderating Role of Culture*, Malaysia.