Comparative Analysis of Electronic Procurement and Conventional Proucurement at the Coordinating Ministry for Political, Legal and Security Affairs

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Abstract

Electronic procurement is a comprehensive process in which the government use IT system to establish agreement for the acquisition of product or service. E-procurement is expected to improve the efficiency of time and cost and increases transparency in procurement process. The purpose of this study is to compare the efficiency of time, cost and transparency between electronic procurement and conventional procurement. The research was conducted at the Coordinating Ministry for Political, Legal and Security Affairs. This study used a quantitative and qualitative approach with a comparative retrospective design. The subject of this research consisted of members of the Procurement Services Unit and the Procurement Project Leader at the Coordinating Ministry for Political, Legal and Security Affairs. Data analysis using paired sample t test. The results show that there is a significant difference in time aspect with a conventional mean value of 25.125 and an electronic mean of 29,575. There is a significant difference in the transparency aspect with a conventional mean value of 20,525 and an electronic mean of 30,875. There is a significant difference in the cost aspect with a conventional mean value of 20,775 and an electronic mean of 31,700. The conclusion of this research is the e-procurement has brought a better change in procurement process at the Coordinating Ministry for Political, Legal and Security Affairs. Suggestions for improving the implementation of e-procurement at the Coordinating Ministry for Political, Legal and Security Affairs are socialization of regulations and technical guidance of the application, adequate maintenance of information technology infrastructure and facilities and coordinating with LKPP to complete the e-procurement application features.

Keywords: Eprocurement, Efficiency, Transparency, Public Policy

1. Introduction

Since the reform era, the demands for good governance have grown. Good governance is interpreted as a participatory, effective, honest, fair, transparent and accountable government to all levels of government. Now good governance becomes the most prominent issue, the society is very demanding the government to implement good government administration in order to improve public services to the society.

Excellent public services should be supported by the adequate and quality facilities and infrastructure for society and the government agencies who provide public services. This is the important purpose of the procurement. Based on Presidential Decree Number 80 Year 2003 concerning Guideline of Public Procurement Article 2 paragraph 2 stated that the purpose of procurement of goods / services is to obtain goods / services required by Government Agency in sufficient quantities, with quality and price that can be accounted for, in a certain time and place, effectively and efficiently, under applicable terms and ordinances.

Public procurement is regulated in Presidential Decree Number 80 Year 2003 which contains mechanism or procedure of public procurement. However, in the presidential decree, the procurement mechanism is still carried out manually by bringing together

directly between the prospective provider and the procurement committee. Conventional procurement felt to have some weaknesses such as inefficiency in time, less transparent and procurement costs are quite high.

The government of Indonesia try to improve the effectiveness of the public procurement by issuing of Presidential Decree No. 54/2010 about procurement of goods/services in government. One of the difference from the previous regulation is that in Article 131 paragraph 1 stating that the State Ministry / Agency / Department/Institution must use e-procurement in public procurement since year 2012. With the implementation of e-procurement, it is expected that the public procurement can be implemented more efficiently, effectively, transparently, competitively, non-discriminatory, open and accountable.

The regulation of eprocurement is continuously improved by the government. One of the improvement is by the issuance of Presidential Regulation No. 4 of 2015 about fourth change of presidential regulation number 54/2010 about the procurement of goods / services in government. There is some new mechanisms to support the implementation of electronic procurement in this regulation. These mechanisms include e-tendering and e-catalog. E-Tendering is the procedure for the selection of the Provider of the Goods / Services which is done openly and can be followed by all Providers of Goods / Services registered in the procurement system electronically by delivering 1 (one) time offering within a predetermined time. E-catalog is an electronic information system that lists, types, technical specifications and prices of certain goods from various providers of government goods / services.

Coordinating Ministry for Political, Legal and Security Affairs (Kemenko Polhukam) is one of the central government agencies that implement e-procurement policy. Kemenko Polhukam is a central government agency that help the President in synchronizing, coordinating and controlling the planning, compilation and implementation of policies in the fields of politics, law and security. To be able to carry out its duties and functions properly, so as to produce quality policy recommendations for the President and beneficial to the community, Kemenko Polhukam requires the support of facilities and infrastructure both in the form of goods and services of quality. Therefore, the implementation of effective procurement at the Coordinating Ministry for Political and Security Affairs is urgently needed.

The Implementation of E-procurement at the Coordinating Ministry for Political and Security Affairs has began in year 2013 with the issuance of the Decree of the Coordinating Minister for Political and Security Affairs Number Kep-80 / Menko / Polhukam / 10/2012 about the Procurement Services Team. The implementation of e-procurement within Kemenko Polhukam brings a better in work behavior. Open bidding through internet facilities that can be accessed from anywhere will make the auction easier. Providers may enter the auction without coming directly. This will reduce direct contact between the procurement committee and the bidders. This change is expected to increase transparency in the process of procurement, improve the efficiency of the time aspect and reduce costs in the implementation of procurement in Kemenko Polhukam. This research will analyze the comparison of electronic procurement and conventional procurement at Kemenko Polhukam seen from time aspect, transparency and cost.

2. Literature Review

Electronic Procurement (e-procurement) is defined as the use of information technology to facilitate business-to-business (B2B) purchase transactions for materials/ goods and services (Wu et al, 2007). According to Oliviera (2001) e-procurement is the process of purchasing the necessary goods and services for operational needs of organizations by using information technology. This is in line with Neef (2001) which

identifies e-procurement as adopting an internet-based system in the buying process. The use of information technology systems in e-procurement explained by the above opinions are in line with Presidential Regulation No. 4 of 2015 which defines electronic procurement is the procurement of goods/services implemented by using information technology and electronic transactions in accordance with provisions of legislation.

Siahaya (2013) in accordance with article 3 of Presidential Regulation 54 of 2010 states that in the implementation of procurement activities must apply the below principles:

1. Effective, in accordance with the needs that have been set and can provide maximum benefits in accordance with the goals set by the company
2. Efficient, cultivated by using funds, power, and facilities as small as possible to achieve the target in a short time and can be accounted for and contribute as much as possible
3. Competitive, done through selection and fair competition among providers of equivalent goods/services and meet certain requirements/criteria based on clear and transparent provisions and procedures
4. Transparent, all provisions and information, both technical and administrative including evaluation procedures, evaluation results and awarding of winners shall be open to interested providers of goods/services
5. Fair, non-discriminatory in giving treatment to all providers of goods/services and does not lead to profit to certain parties
6. Responsible, achieving goals in physical, financial and benefits in accordance with the principles and policies and provisions applicable in supply chain management
7. In favor of domestic products, it means supporting and nurturing national capabilities to better compete at the national, regional and international levels
8. Environmentally sound, support and develop activities with regard to environmental capabilities and impacts

Based on Presidential Regulation No. 54/2010 about public procurement, basically the stages in the procurement process are as follows:

1. Announcement stage
   This stage is the initial stage of the procurement of goods/services. The procurement announcement contains the name of the package of work, place and time of registration as well as the conditions that must be met. The announcement of goods/services procurement package on a conventional system is announced through the agency board announcement as well as through print media. While the announcement on the electronic system is announced on the national procurement portal that can be accessed by all communities from all over Indonesia.
2. Registration stage
   The registration stage is the stage that shows how many participants are interested in following the procurement. In conventional procurement, registration is done manually by coming directly to the agency conducting the auction. While on electronic procurement registration is done online through Electronic Procurement System or Sistem Pengadaan Secara Elektronik (SPSE).
3. Document retrieval stage
   At the document retrieval stage, registered entrants will receive a package of procurement documents which include the Terms of Reference, Estimate Prices, Technical Specifications of Goods/Services and the contract design. In conventional procurement, procurement documents are given in hardcopy or document softcopy form on CD. Participants must come directly to take procurement documents to the Procurement Unit of the agency holding the auction. While on electronic procurement, procurement documents can obtained by downloading from the portal procurement agency that held the auction.

4. The job description/aanwijzing stage
   At the job description stage, participants who have taken and studied the procurement document may ask questions if there are other requirements or concerns that need more explaining or that are inconsistent with applicable regulations. In the conventional procurement, the description/aanwijzing carried out directly face to face between the participants and the committee. While in the electronic system, aanwijzing is done online through the portal procurement agency concerned.
5. Submitting and opening bidding documents stage
   One day after the job description, the participants can now enter the bidding document. The bidding will then be opened at the time specified in the procurement schedule. In the conventional system, document submission is carried out manually by submitting a single original document and two copies of the photocopied document to the procurement committee. This document will then be opened together to be checked for completeness by two witnesses from the other participants. On electronic procurement, the bidding document submitted by uploading softcopy that has been encrypted or secured by method of coding into procurement portal. Documents can only be opened by the committee listed in the system as the package committee concerned. The opening of the document encryption is using APENDO, an application designed by the State Code Institution so that the security and confidentiality of the bidding documents are maintained. Documents that have been opened will then be evaluated by the committee covering administrative, technical and pricing evaluations.
6. Winner announcement stage
   After performing administrative, technical and price evaluation then based on the order of the rate, three providers candidate which are the winner of serial number 1, 2 and 3 are determined. The announcement of the winners in conventional system is done through board announcement institution. While on electronic procurement, the announcement of winners is through procurement portal.
7. Protest Stage
   After the announcement of the winner, if there is any participant who is not satisfied with the result of the evaluation of the committee in determining the winner then they can file a protest. Protest period is set for 5 days. The first objection is addressed to the Procurement Services Unit. If they still not satisfied with the answer from the Procurement Service unit then the participant can file an appeal directed to the minister/ head of institution/head of region concerned.
8. Contract signing stage
   The final stage of the procurement process of goods/services is the signing of the contract. After the winner of the auction is obtained and there is no objection then the winner may be appointed as the provider of goods/services by the Proxy of Budget User and may then sign the contract with the Committing Officer. The points of agreement between the two parties should be set forth in the draft contract in the procurement document.

3. Research Method

This study used a quantitative and qualitative approach with a comparative retrospective design, it is a study that compares a process that has occurred in the past then performed a synthesis to determine the predominances of the two processes studied. This research was conducted at the Coordinating Ministry for Political, Legal and Security of Indonesia which is located at Jl. Medan Merdeka Barat No. 15 Central Jakarta. The population in this study was all people involved in the procurement of goods/services in all the state ministries and institutions in Indonesia. In this context, researchers are only researching in

the Coordinating Ministry for Political, Legal and Security of Indonesia. The total population in Coordinating Ministry for Political, Legal and Security of Indonesia was only 40 people, consisting of employees of Kemenko Polhukam who were involved in the procurement process at Coordinating Ministry for Political, Legal and Security Affairs since 2013 until the 2016 which was stipulated through the Decree of Proxy of Budget User of Coordinating Ministry for Political, Legal and Security Affairs. Furthermore, the total population of research which amounted to 40 people was used as research samples. The sample of the study was chosen in accordance with the purposive sampling, which is a technique of determining the sample with a specific purpose. The entire sample population was the parties involved and who understand the mechanism of procurement of goods/services electronically and conventionally in Coordinating Ministry for Political, Legal and Security of Indonesia.

The instrument used in this study was a questionnaire consisting of question items related to aspects of time, transparency and cost on electronic and conventional procurement. The instrument was then used directly to conduct research after it went through expert validation. The validity of the instrument was tested by using the Pearson Correlation validity test and Cronbach Alpha reliability test.

To determine the comparison of aspects of time, transparency and cost on electronic and conventional procurement, the researcher used paired sample t test. As a preliminary analysis, the researchers conducted the Kolmogorov-Smirnov normality test and homogeneity test.

4. Result and Discussion

The comparison of electronic and conventional procurement at Coordinating Ministry for Political, Legal, and Security Affairs viewed from the aspect of time, transparency and cost are as follows:

Comparison of Time Aspects in Electronic and Conventional Procurement

Siahaya (2012: 11) states that one of the principles of procurement is the principle of efficiency, meaning that the procurement is cultivated using the least amount of funds, resources and facilities to achieve the objectives in a short time and can be accounted for and contribute as much as possible. Setiyadiharja (2016: 19) states that time-consuming for the conventional procurement process are more time-consuming in paperwork than by servicing suppliers or negotiating prices. Meanwhile, Setyadiharja in Mutiarin & Zainudin (2014) stated that e-procurement is more efficient in terms of time and operational cost when compared to conventional tender.

The research conducted at Coordinating Ministry for Political, Legal and Security affairs shows results that are in line with the opinions of the experts above. Time variable in this research is in the form of the long duration of an activity conducted by research subjects in carrying out each stage of the procurement process from the announcement of procurement until the signing of the contract. Time aspect measurements were performed by distributing questionnaires to 40 research samples. The questionnaire consisted of 8 questions relating to the time of conventional procurement of goods/services and from 8 questions related to the electronic procurement time of goods/services. The average comparison of time aspects between procurement of goods/services electronically and conventionally is as follows:

Table 1 . The average comparison of time aspects between electronic procurement and conventional procurement

Number of Question	Procurement Stage	Mean Conventional	Mean Electronic	Nilai Sig. (2-Tailed) Paired Sample Test	Sig Limits	Explanation
1	Announcement	2,85	3,5	0,005	0,05	different
2	Registration	2,95	3,95	0,000	0,05	different
3	Document retrieval	2,9	3,88	0,000	0,05	different
4	Job Description	3,18	3,8	0,007	0,05	different
5	Submitting and bidding document evaluation	3,3	3,18	0,641	0,05	Not different
6	Winner announcement	3,2	3,85	0,001	0,05	different
7	Protest	3,1	4,08	0,000	0,05	different
8	Contract signing	3,65	3,35	0,258	0,05	Not different

From table 1 it is found that in the time aspect there is a significant difference between electronic and conventional procurement of goods/services at the announcement, registration, submitting the document, job descriptions, announcement of winners and protesting. As for in the evaluation stage of the contract and the signing of the contract, there is no significant difference. Details of differences for each stage of procurement of goods/services are as follows:

1. Announcement stage

   Based on table 1 at the announcement stage, the conventional mean value is 2.85 while the electronic mean is 3.5 and has a significance value of 0.005<0.05 limit. The results show that at the announcement stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that the length of time required to process the announcements for electronic procurement of goods/services is faster than conventional systems.

   Based on interviews with experts this can be explained that the conventional procurement has to publish the announcement of procurement of goods/services through a manual system, that is through bulletin board and print media, so that the committee of procurement of goods/services takes longer only to process delivery announcement. With the implementation of electronic procurement system, the time required by the procurement service unit to process the procurement of goods/service announcements is only one hour and can be done through computer, laptop or smartphone with internet network access

2. Registration stage

   Based on table 1 at the Registration stage, the conventional mean value is 2.95 while the electronic mean is 3.95 and has a significance value of 0.000<0.05 limit. The

results show that at the Registration stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that the length of time required to process the Registration for electronic procurement of goods/ services is faster than conventional systems

Based on interviews with experts it can be explained that conventional procurement registration process seized the long working hours of the members of the procurement service unit because they are required to stand by at the place of registration for 7 working days in accordance with the provisions of the length of registration and filing documents specified in the Presidential Regulation. With the electronic procurement system, the registration can be done anytime and anywhere. The calculation of time does not use workday but calendar day. Procurement service unit does not have to stand by at the place of registration because registration can be done online. Prospective providers also do not have to come directly to the agency, only by opening a procurement portal then they can directly register as a candidate. Even within a day a company can follow several packages of procurement at different agencies

3. Document retrieval stage

   Based on table 1 at the Document retrieval stage, the conventional mean value is 2.9 while the electronic mean is 3.88 and has a significance value of 0.000<0.05 limit. The results show that at the Document retrieval stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that the length of time required to process Document retrieval stage for electronic procurement of goods/services is faster than conventional systems

   Based on interviews with experts this can be explained that conventional procurement document retrieval is done manually. The procurement committee prints and duplicates the documents in hardcopy form, the applicant candidate comes directly to the agency and collects the procurement documents in hard copy. In an electronic procurement system, document retrieval is carried out by downloading a procurement document file from an electronic procurement system that can be done from anywhere and anytime during the time frame of the document retrieval

4. Job Description stage (*Aanwijzing*)

   Based on table 1 at the Job Description stage, the conventional mean value is 3,18 while the electronic mean is 3,8 and has a significance value of 0.007<0.05 limit. The results show that at the Job Description stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that the length of time required to process Job Description stage for electronic procurement of goods/services is faster than conventional systems

   Based on interviews with experts this can be explained that conventional procurement job description is done face to face. All registered participants are invited so that the implementation of aanwijzing requires the place, time and preparation of a skilled committee just like when preparing for a coordination meeting. In the implementation of aanwijzing there is also some verbal intimidations between prospective providers with the other prospective providers or with the committee, arguments and debate length in order to maintain, adding auction requirements that are perceived as able to be met by certain companies and are felt not owned by other companies and vice versa, or to eliminate certain requirements that are not owned by the company.

   In the electronic procurement system, *aanwijzing* is implemented through online communication through the procurement portal so that participants do not need a long time to attend the agency, but can view aanwijzing from anywhere. Verbal intimidation is rare because there is no direct face to face between the participants and the committee

5. Submitting and bidding document evaluation stage

   Based on table 1 at the Submitting and bidding document evaluation stage, the conventional mean value is 3,3 while the electronic mean is 3,18 and has a significance value of 0,641 > 0.05 limit. The results show that at the Submitting and bidding document evaluation stage there is no significant difference between electronic and conventional procurement. This means that research subjects argue that the length of time required to process Submitting and bidding document evaluation stage for electronic procurement of goods/services is same as conventional systems.

   Based on interviews with experts it can be explained that for document evaluation process although there is already electronic procurement system existed, but there is still a stage of procurement that needs to be done manually, that is evaluation of substance or technical evaluation. This stage takes a long time because it involves the user who understands the substance of the work. The Coordinating Ministry for Political, Legal and Security Affairs (Kemenko Polhukam) carries out many studies requiring the assessment of echelon I and II officials who understand the substance of the political, legal and security fields. Most echelon I and II officials in Kemenko Polhukam have a hectic working schedule whether it is a working meeting in Jakarta or a visit to the region so that the substance evaluation should be adjusted to the work schedule of echelon I and II officials

6. Winner announcement stage

   Based on table 1 at the Winner announcement stage, the conventional mean value is 3,2 while the electronic mean is 3,85 and has a significance value of 0.001<0.05 limit. The results show that at the Winner announcement stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that the length of time required to process Winner announcement stage for electronic procurement of goods/services is faster than conventional systems

   Based on interviews with experts it can be explained that in conventional procurement, the announcement of the winners is done manually through bulletin board in the institution. Auction participants should come to the agency to see who is named as the winner. At electronic procurement, the announcement of winners can be seen from procurement portals that can be accessed from anywhere and anytime.

7. Protest stage

   Based on table 1 at the Protest stage, the conventional mean value is 3,1 while the electronic mean is 4,08 and has a significance value of 0.000<0.05 limit. The results show that at the Protest stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that the length of time required to process Protest stage for electronic procurement of goods/services is faster than conventional systems

   Based on interviews with experts it can be explained that in conventional procurement, if there are dissatisfied participants on the decision of the committee in appointing the winning bidder then the filing of the protest is done by a written letter addressed to the procurement service unit. It is in contrast to the electronic procurement system. At the time the participant filed a protest through the spse application by filling the form refutation on the application then at that time also the form is sent and can be read by the procurement committee. So filing a protest through electronic procurement system is faster than conventional

8. Contract signing stage

   Based on table 1 at the Contract signing stage, the conventional mean value is 3,65 while the electronic mean is 3,35 and has a significance value of 0,258>0.05 limit. The results show that at the Contract signing stage there is no significant difference between

electronic and conventional procurement. This means that research subjects argue that the length of time required to process Contract signing stage for electronic procurement of goods/services as same as conventional systems

Based on interviews with experts it can be explained that for contract signing process both in conventional system and in electronic system still executed manually, that is with direct face to face between officer of commitment with provider of goods/services so there is no significant difference from time aspect at this stage. It also takes a long time to draft the contract because of the limited knowledge of the implementers on the types of contracts and contract management

Comparison of Transparency Aspects in Electronics and Conventional Procurement of Goods/Services stages

The definition of transparency is explained by Agus Dwiyanto (2008: 236) which suggests that the concept of transparency refers to a state in which all aspects of the service delivery process are open and can be easily identified by the users and stakeholders in need. Transparency variable in this research is in the form of long duration of an activity carried out by research subjects in carrying out each stage of the procurement process from the announcement of the procurement until the signing of the contract

Transparency aspect measurements were performed by distributing questionnaires to 40 research samples. The questionnaire consisted of 8 questions relating to the transparency of conventional procurement of goods/services and from 8 questions related to the electronic procurement transparency of goods/services. The average comparison of transparency aspects between procurement of goods/services electronically and conventionally is as follows:

Table 2. The average comparison of time aspects between electronic procurement and conventional procurement

Number of Question	Procurement Stage	Mean Conventional	Mean Electronic	Nilai Sig. (2-Tailed) Paired Sample Test	Sig Limits	Explanation
1	Announcement	2,25	4,3	0,000	0,05	different
2	Registration	2,3	3,53	0,000	0,05	different
3	Document retrieval	2,23	4,43	0,000	0,05	different
4	Job Description	2,15	3,4	0,000	0,05	different
5	Submitting and bidding document evaluation	1,95	4,38	0,000	0,05	different
6	Winner announcement	3,4	4	0,001	0,05	different
7	Protest	3,15	3,88	0,000	0,05	different
8	Contract signing	3,1	2,98	0,585	0,05	Not different

From table 2 it is found that in the transparency aspect there is a significant difference between electronic and conventional procurement of goods/services at the announcement, registration, submitting the document, job descriptions, Submitting and bidding document evaluation, announcement of winners and protesting. As for in the contract and the signing of the contract, there is no significant difference. Details of differences for each stage of procurement of goods/services are as follows :

1. Announcement stage

   Based on table 2 at the announcement stage, the conventional mean value is 2,25 while the electronic mean is 4,3 and has a significance value of 0.000<0.05 limit. The results show that at the Announcement stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that the electronic procurement of goods/services is more transparent than conventional systems.

   Based on interviews with experts this can be explained that in conventional procurement, there are only few candidate providers of goods/services who know the existence of procurement of goods/services announcement. This is because the announcement is still done manually through the board announcement agencies and print media. So the provider of goods/services must come to the institutions one by one or to buy some print media to be able to know the existence of procurement of goods/ services.

   In contrast to electronic procurement system. Announcements are made through procurement portals that can be accessed anytime, anywhere and by anyone so that all employers whose fields correspond to work packages have equal opportunity to participate in the auction

2. Regristation stage

   Based on table 2 at the regristation stage, the conventional mean value is 2,3 while the electronic mean is 3,53 and has a significance value of 0.000<0.05 limit. The results show that at the Regristation stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that the electronic procurement of goods/services is more transparent than conventional systems.

   Based on interviews with experts this can be explained that in conventional procurement, not all entrepreneurs get the same opportunity and treatment at the time of registration. One of them is due to the location factor and the opportunity to obtain information. Entrepreneurs whose business location is close to the agency will have greater opportunity compared to entrepreneurs whose business location is far from the agency. Nepotism is also prone to occur, ie entrepreneurs who are invited to register are entrepreneurs who already know or have a relationship with one of the officials in the agency.

   With an electronic procurement system, all entrepreneurs whose field of business corresponds have equal opportunity to register as participants. Registration is done through the procurement portal by filling in the qualification form on the SPSE application.

3. Document retrieval stage

   Based on table 2 at the document retrieval stage, the conventional mean value is 2,23 while the electronic mean is 4,43 and has a significance value of 0.000<0.05 limit. The results show that at the Document retrieval stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on document retrieval stage the electronic procurement of goods/services is more transparent than conventional systems.

   Based on interviews with experts it can be explained that in conventional procurement,

procurement documents are taken manually and printed in hard copy. Participants must come directly to the agency to be able to obtain procurement documents comprising the Terms of Reference, Estimate Prices, Technical Specifications, Work Plans and Terms and Standards Biding Procurement Documents.

In contrast, in the electronic procurement systems, all such documents can be obtained by downloading from the procurement portal and can be done anytime and anywhere. Documents downloaded are standard in accordance with the template of the Government Procurement Policy Agency.

4. Job Description stage (*Aanwijzing*)

Based on table 2 at the job description stage, the conventional mean value is 2,15 while the electronic mean is 3,4 and has a significance value of 0.000<0.05 limit. The results show that at the Job Description stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Job Description stage the electronic procurement of goods/services is more transparent than conventional systems.

Based on interviews with experts this can be explained that in conventional procurement, aanwijzing is implemented face to face and require participants who come directly to attend aanwjzing. Participants who are not attending aanwijzing then do not get any information or explanation of job details.

While in the electronic procurement system, the aanwijzing is implemented online. The list of questions and answers discussed during aanwijzing can be read and downloaded by all registered participants without exception.

5. Submitting and bidding document evaluation stage

Based on table 2 at the Submitting and bidding document evaluation stage, the conventional mean value is 1,95 while the electronic mean is 4,38 and has a significance value of 0.000<0.05 limit. The results show that at the Submitting and bidding document evaluation stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Submitting and bidding document evaluation stage the electronic procurement of goods/services is more transparent than conventional systems.

Based on interviews with experts this can be explained that the conventional procurement is evaluated manually by the committee. In this stage, it is difficult to assess whether there is a subjective element of the committee or not. On electronic procurement, because there is no form or feature to carry out technical evaluation. So technical evaluation is still executed manually by the committee. After the evaluation is done manually, the news event evaluation results uploaded into the procurement system electronically.

Viewed from the aspect of transparency, the experts argue that the element of subjectivity is still very strong in this evaluation method because the evaluation process is not carried out openly.

6. Winner announcement stage

Based on table 2 at the Winner announcement stage, the conventional mean value is 3,4 while the electronic mean is 4,0 and has a significance value of 0.001<0.05 limit. The results show that at the Winner announcement stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Winner announcement stage the electronic procurement of goods/services is more transparent than conventional systems.

Based on interviews with experts it can be explained that in conventional procurement, the announcement of the winner is done manually through bulletin board in the institution. Auction participants should come to the agency to see who is named

as the winner.

At electronic procurement, the announcement of winners can be seen from procurement portals that can be accessed from anywhere and anytime

7. Protest stage

   Based on table 2 at the Protest stage, the conventional mean value is 3,15 while the electronic mean is 3,88 and has a significance value of 0.000<0.05 limit. The results show that at the Protest stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Protest stage the electronic procurement of goods/services is more transparent than conventional systems.

   Based on interviews with experts it can be explained that in conventional procurement, if there are dissatisfied participants on the decision of the committee in appointing the winning bidder then the filing of the protest is done by a written letter addressed to the procurement service unit. Participants who submit an objection can not monitor whether the letter has reached the procurement committee or not. The minister also cannot be sure when to get an answer or response to the protest submitted.

   In contrast, the electronic procurement system. At the time the participant filed a protest through the spse application by filling the form on the application then at that time also the form is sent and can be read by the procurement committee. So filing a protest through electronic procurement system is more transparent than conventional system.

8. Contract signing stage

   Based on table 1 at the Contract signing stage, the conventional mean value is 3,1 while the electronic mean is 2,98 and has a significance value of 00,585 > 0.05 limit. The results show that at the Contract signing stage there is no significant difference between electronic and conventional procurement. This means that research subjects argue that the transparency of process on Contract signing stage for electronic procurement of goods/services as same as conventional systems.

   Based on interviews with experts it can be explained that the contract signing process is still executed manually both in conventional system and electronic system, that is by direct face to face between commitment maker with provider of goods/service so there is no significant difference from transparency aspect at this stage.

Comparison of Cost Aspects of Electronic and Conventional Procurement of Goods/ Services stages

Siahaya (2012: 11) states that one of the principles of procurement is the principle of efficiency, meaning that the procurement is cultivated using the least amount of funds, resources and facilities to achieve the objectives in a short time and can be accounted for and contribute as much as possible

Wijaya, Indriyani, and Putri (2011) stated that the cost dimension in procurement of goods/services related to administrative costs, opportunity cost of copied and total cost per tender. Kaming and Kurniawan (2012) argued that the cost aspect in the procurement of goods/services related to all expenditures that occur to carry out every stage in the procurement process of goods/services.

Shaw and Subramaniam (2004) state that e-procurement can reduce coordination costs such as supplier search, negotiation, communications, follow-up, and fault reconciliation with suppliers. Meanwhile, Burn and Ash (2003) stated that early adoption of e-procurement emphasizes cost reduction and administrative efficiency.

The research conducted at Coordinating Ministry for Political, Legal and Security of

Indonesia shows results that are in line with the opinions of the experts above. The cost variable in this study is a measure of the duration of the activity carried out by the research subjects in carrying out each stage of the procurement process from the announcement of the procurement until the signing of the contract.

The cost aspect measurements were performed by distributing questionnaires to 40 research samples. The questionnaire consisted of 8 questions relating to the cost of conventional procurement of goods/services and from 8 questions related to the electronic procurement cost. The average comparison of cost aspects between procurement of goods/ services electronically and conventionally is as follows:

Table 3. The average comparison of time aspects between electronic procurement and conventional procurement

Number of Question	Procurement Stage	Mean Conventional	Mean Electronic	Nilai Sig. (2-Tailed) Paired Sample Test	Sig Limits	Explanation
1	Announcement	2,13	4,1	0,000	0,05	different
2	Registration	2,28	3,73	0,000	0,05	different
3	Document retrieval	2,05	3,93	0,000	0,05	different
4	Job Description	1,98	4,18	0,000	0,05	different
5	Submitting and bidding document evaluation	3,53	3,43	0,618	0,05	Not different
6	Winner announcement	2,2	4,18	0,000	0,05	different
7	Protest	2,38	3,7	0,000	0,05	different
8	Contract signing	4,25	4,48	0,183	0,05	Not different

From table 3 it is found that in the transparency aspect there is a significant difference between electronic and conventional procurement of goods/services at the announcement, registration, submitting the document, job descriptions, announcement of winners and protesting. As for Submitting and bidding document evaluation and the signing of the contract, there is no significant difference. Details of differences for each stage of procurement of goods/services are as follows :

1. Announcement stage

   Based on table 3 at the announcement stage, the conventional mean value is 2,13 while the electronic mean is 4,1 and has a significance value of 0.000<0.05 limit. The results show that at the Announcement stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Announcement stage the electronic procurement is cheaper than conventional systems.

   Based on interviews with experts it can be explained that the publishing of the

procurement announcement of goods/services must be through manual system, that is through bulletin board and print media, so the committee of goods/services procurement require cost to publish the announcement in media print. The average cost required for a package of the announcement is Rp 1,500,000.

While from the provider side, the cost required to obtain information announcement procurement of goods/services are, among others, the cost of purchasing print media and transportation costs to the agency that organizes the auction.

With the introduction of electronic procurement system there is no cost required to publish the procurement announcement of goods/services. From the provider side, announcements can also be accessed for free, only requiring internet packages

2. Regristation stage

Based on table 3 at the regristation stage, the conventional mean value is 2,28 while the electronic mean is 3,73 and has a significance value of 0.000<0.05 limit. The results show that at the Regristation stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Regristation stage the electronic procurement is cheaper than conventional systems

Based on interviews with experts it can be explained that in conventional procurement, the cost that the committee has to take out for the registration process in the conventional auction are, among others, the cost of consumption and printing of administrative documents registration. On the participants' side, the costs include transportation costs and the cost of duplicating corporate administration documents.

With the implementation of electronic procurement system, there is no cost that need to be incurred to implement the procurement of goods/services because the entire registration process is carried out online and paperless

3. Document retrieval stage

Based on table 3 at the document retrieval stage, the conventional mean value is 2,05 while the electronic mean is 3,93 and has a significance value of 0.000<0.05 limit. The results show that at the Document retrieval stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Document retrieval stage the electronic procurement is cheaper than conventional systems.

Based on interviews with experts it can be explained that in conventional procurement, the procurement documents are taken manually and printed in hard copy. Participants must come directly to the agency to be able to obtain procurement documents comprising the Terms of Reference, Estimate Prices, Technical Specifications, Work Plans and Terms and Standards Biding Procurement Documents. Costs incurred by the participants include transportation costs. While from the committee side the procurement costs incurred include the cost of consumption and cost of printing and duplication of documents.

While in the electronic procurement system, all documents are presented in softcopy form which can be downloaded from the relevant procurement portal so there is no cost incurred because the document can be obtained from anywhere and presented in softcopy (paperless)

4. Job Description stage (*Aanwijzing*)

Based on table 3 at the job description stage, the conventional mean value is 1,98 while the electronic mean is 4,18 and has a significance value of 0.000<0.05 limit. The results show that at the Job Description stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Job Description stage the electronic procurement is cheaper than conventional systems

Based on interviews with experts this can be explained that in conventional procurement, the aanwijzing is implemented face to face and require participants to come directly to aanwjzing. Costs incurred at this stage include the cost of transport for participants, the cost of consumption and duplication of documents for the committee.

While the electronic procurement of goods/services, the job description is carried out online so that no cost required for this stage.

5. Submitting and bidding document evaluation stage

   Based on table 3 at the submitting and bidding document evaluation stage, the conventional mean value is 3,53 while the electronic mean is 3,43 and has a significance value of 0,618 > 0.05 limit. The results show that at the Submitting and bidding document evaluation stage there is no significant difference between electronic and conventional procurement. This means that research subjects argue that on Submitting and bidding document evaluation stage the electronic procurement cost as same as conventional systems cost.

   Based on interviews with experts it can be explained that the evaluation stage is still carried out manually although there is already the stage of technical evaluation in Electronic Procurement System

6. Winner announcement stage

   Based on table 3 at the winner announcement stage, the conventional mean value is 2,2 while the electronic mean is 4,18 and has a significance value of 0.000<0.05 limit. The results show that at the Winner announcement stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Winner announcement stage the electronic procurement is cheaper than conventional systems.

   Based on interviews with experts this can be explained that the announcement of the winner in conventional procurement is done manually through bulletin board in the institution. Costs incurred at this stage include the cost of transporting bidders to the agency to see the winner's announcement. Meanwhile, from the committee side the cost incurred in, among others, the cost of telephone and communication if it turns out the winner of the auction did not get the announcement of the winner information through bulletin board.

   With the application of electronic procurement system there is no cost that need to be incurred to post the announcement of winner of goods/service procurement.

7. Protest stage

   Based on table 3 at the protest stage, the conventional mean value is 2,38 while the electronic mean is 3,7 and has a significance value of 0.000<0.05 limit. The results show that at the Protest stage there is a significant difference between electronic and conventional procurement. This means that research subjects argue that on Protest stage the electronic procurement is cheaper than conventional systems.

   Based on interviews with experts this can be explained that to propose a protest on the conventional procurement system, is by sending a letter to the institution. The cost incurred here is the cost of mail delivery. These costs may be judged to be immaterial so that respondents' answers show no significant difference between the electronic procurement system and the conventional procurement system

8. Contract signing stage

   Based on table 3 at the contract signing stage , the conventional mean value is 4,25 while the electronic mean is 4,48 and has a significance value of 0,183 > 0.05 limit. The results show that at the Contract signing stage there is no significant difference between electronic and conventional procurement. This means that research subjects argue that

on Contract signing stage the electronic procurement cost as same as conventional systems cost.

Based on interviews with experts it can be explained that the contract signing process is still executed manually both in conventional in electronic system, that is by direct face to face between officer making commitment with provider of goods/services so there is no significant difference from cost aspect at this stage.

After analyzing the average comparison per procurement stage, then the average comparison of the overall analysis comes with the following results:

Table 4. The result of *Paired Sample t test*

Dimension	Mean Conventional	Mean Electronic	Sig Value	Sig Limit	Explanation
Time	25.1250	29.5750	0,000	0,05	different
Transparency	20.5250	30.8750	0,000	0,05	different
Cost	20.7750	31.7000	0,000	0,05	different

1. The time aspect dimension of the conventional mean value is 25.1250 while the electronic mean is 29.5750 and has a significance value of 0.000<0.05 limit, it can be concluded that the time aspect dimension in the test of average difference can be expressed differently significantly. This means that there is an effect of transition usage from the conventional time aspect to the electronic time aspect
2. The transparency aspect dimension has a conventional mean value of 20.5250 while the electronic mean is 30.8750 and has a significance value of 0.000<0.05 limit it can be concluded that the transparency aspect dimension in the mean difference test can be expressed differently significantly. This means that there is an effect of transition usage from the conventional transparency aspect to the electronic transparency aspect
3. The cost aspect dimension has a conventional mean value of 20.7750 while the electronic mean is 31.7000 and has a significance value of 0.000<0.05 limit, it can be concluded that the cost aspect dimension in the test of average difference can be expressed differently significantly. This means that there is an effect of transition usage from the conventional cost aspect to the electronic cost aspect

5. Conclusions

Based on the results of the research described above, it can be concluded that the implementation of electronic procurement of goods and services at Coordinating Ministry for Political, Legal and Security Affairs has brought a better change in the governance of procurement mechanisms of goods and services in Coordinating Ministry for Political, Legal and Security of Indonesia. Although the policy of e-procurement at Coordinating Ministry for Political, Legal and Security of Indonesia is still in the early stages of implementation, but during the four-year implementation of the policy of e-procurement has brought positive changes in the procurement process of goods and services in Coordinating Ministry for Political, Legal and Security of Indonesia seen from the aspect of faster procurement time, more transparent procurement and more efficient cost of procurement.

1. Time Aspect

   The results show the time allocated to process the electronic procurement of goods and services is faster than the time allocated to process the conventional procurement of goods and services, especially at the auction announcement stage, registration,

document retrieval, job description, the announcement of winners and protest. This is because e-procurement utilizes information technology to process each stage so that procurement committee can process it faster.

But there are still stages that are still processed for a long time which is the stage of evaluation and signing the contract. The length of the evaluation process is due to the lack of knowledge of the procurement committee related to regulations and policies of goods/services and work substance. In addition, the technical evaluation process is still executed manually because there is no feature to perform technical evaluation in e-procurement application.

The signing the contract takes a long time due to the lack of committee knowledge of contract management, the forms of contract are designed according to the type of work so that it takes a long time to prepare the concept of contract until the signing process of the contract.

2. Transparency Aspect

   The results show that the electronic procurement process of goods/services is more transparent compared to the conventional procurement of goods/services. This is because the electronic procurement of goods and services can be accessed more widely by the people throughout Indonesia. Conventional procurement goods and services can only be accessed in a limited way.

   But there are still stages that are considered less transparent which is the evaluation stage of technical documents. The evaluation of technical documents is still carried out manually so that the participants can not monitor the evaluation process. This is because there is no technical evaluation feature in e-procurement application.

3. Cost Aspect

   The results showed that the implementation of e-procurement has increased cost efficiency in Coordinating Ministry for Political, Legal and Security of Indonesia. Some costs that can be reduced by the implementation of electronic procurement are, among others, the cost of announcements in the mass media, duplication of document cost, and stationery costs. This is because the process of electronic procurement of goods/ services does not require the printing and duplication of documents, the frequency of the meeting is also lessening, the announcements are posted on the website of the Ministry so it does not require the cost of newspaper announcements in the mass media.

Although the overall research results indicate a positive change, but there are still stages that require high cost, which are document evaluation and signing the contract. This is because both processes are still manually implemented, requiring meeting costs, transportation costs, and printing and duplication costs.

6. Recommendation

Based on the discussion that has been done and after concluding the research results, it is suggested to the Coordinating Ministry for Political, Legal and Security Affairs to be able to apply e-procurement thoroughly to all packages of goods and services procurement at Coordinating Ministry for Political, Legal and Security affairs. In addition to improving the effectiveness of the implementation of e-procurement policy, there are also some suggestions that can be implemented to enhance transparency and efficiency of time and cost in the implementation of procurement of goods and services in Coordinating Ministry for Political, Legal and Security affairs:

1. To speed up the process of procurement during the evaluation stage and contract signing, it is necessary to increase the knowledge and insight of the human resources related to the regulation in goods/services procurement, procurement transformation

from the manual system to the electronic system, and the knowledge in the field of contract management. Measures that can be done to improve knowledge and insight of human resources are :

- Socialize the regulation on procurement
- Hold technical guidance of e-procurement application
- Conduct procurement certification
- Conduct training on contract management

2. To improve the transparency of the procurement process of goods and services, it is necessary to improve the infrastructure of information technology as a means of supporting the implementation of electronic procurement policy of goods and services. By adequate means of information technology infrastructure, electronic procurement process can be implemented more maximally and more open to all people of Indonesia. Measures to provide an adequate means of information technology are:
   - Maximize the use of the server at the data center of Coordinating Ministry for Political, Legal, and Security Affairs to process e-procurement applications
   - Provide adequate Internet data to be able to execute procurement of goods/services electronically
   - Carry out adequate maintenance of internet network and information technology equipment in Coordinating Ministry for Political, Legal, and Security Affairs
3. To reduce procurement costs at the technical evaluation stage there is a need for additional features in e-procurement applications so that the evaluation process is no longer implemented manually. Steps to add technical evaluation features to e-procurement applications include:
   - Coordinate with Government Procurement Policy Institution as application provider related to user requirement of adding feature in e-procurement application.
   - Create a standard and uniform technical evaluation work paper template for all work packages at Coordinating Ministry for Political, Legal, and Security Affairs
   - Establish standard and uniform technical evaluation indicators for all work packages in Coordinating Ministry for Political, Legal, and Security Affairs

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Quality Control of Stone Plate Products (Case Study: Industrial Craftsman Plates Stone-Indonesian Jember)

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Abstract

This study was conducted to assess the extent to which the quality of the products manufactured enhanced the competitiveness of stone plate craftsmen in Jember. This research applied purposive sampling method to collect production data produced by stone plate craftsmen in Jember area with saturated sampling technique. The data used in this study was the primary data obtained through direct observation of the research object. The tool used in assessing quality was Statistical Process Control using range 1 and 2 for Japanese standards and CMT standards (China, Malaysia and Taiwan) based on three research attributes. Based on the results of the analysis of research data, many products of all stone plate craftsmen were out of the limit of tolerance or defects. The competitiveness of stone craftsmen in Jember area was strongly influenced by the quality of the products they produced. Therefore, it is necessary to improve the product quality for improved competitiveness of stone plate craftsmen in Jember area through quality control in increasing the income of the district's stone plate craftsmen.

Keywords: quality assessment, SPC, competitiveness, Jember stone plate craftsmen.

1. Introduction

Stone plate comes from the hills/dune resulting from the collision of lava and volcanic hot lava. This is one of the stone mines that are often used as building materials, such as floor materials, wall hangings, fence decorations, and others. Due to the typical use of aesthetics, the demand for stone plates has been relatively high recently. From 2010 to 2014, the demand for stone plate increased by 7%, according to the data of Jember Department of Industry and Commerce (DISPERINDAG).

Jember, located in East Java, Indonesia, is known as one of stone plate producers. Geographically, there are 1666 hills that potentially produce stone plates. Stone mining activities have been operated in the sub-districts of Jember, such as Kalisat, Jelbuk, and Pakusari, since the 1970s. Initially, handcrafter processed plate stones into various types of products sold in the domestic (local) market. Recently, craftsmen in Jember have expanded the stone plate market. They not only sell their products in local market but also in overseas markets. According to Liputan6.com report, the export has grown from 3,000 tons in 2003 to 20,000 tons in 2016. This shows that the handicraft industry is growing significantly.

Overseas markets offer promising economic opportunities. Local price is only about 30% - 40% of the global price. Local prices range from Rp40,000 to Rp75,000 per square meter while the global price ranges from Rp75,000 to Rp100,000. Despite offering higher prices, the global market demands strict quality specifications. Some household handcrafting stone slabs cannot meet these quality specifications. As a result, the competitiveness of the domestic industry is in danger in recent years.

One way to improve the obedience of the home-industry of stone craft is to assess the quality of its products. The tool used in the assessment is Statisical Process Control (SPC) (Ross, M.1991). Li (2013) points out that there are many methods for assessing quality in

SPC, such as attribute control charts and variable control charts. In this research, the analysis of attribute control chart is employed. This method will end with the identification of quality issues and the cause of the issues. Based on the identification, several recommendations to improve the quality of performance can be formulated so as to improve the competitiveness of stone-based home industry, especially in Jember region. This article aims to assess the quality performance of the stone plate home-based industry and recommend several strategies to improve its quality.

2. Literature Review

The main purpose of a business is to maintain its business continuity (going concern). In running a business, it is important to put some special attention to maintain the sustainability of the business. One of the important things that must be taken into account by all businesses is the quality of products they manufacture. Erdos (2014) states that a business should not be concerned about product and market quality alone, but rather focus on innovation. Quality is one of the factors that are often debated in supporting a competition. Poor quality will directly have a negative impact on the development of trade as a whole. It is not uncommon for countries that apply standards of quality to benefit more because of the barriers to enter other countries (Hu and Lin, 2016). Poor quality and damage to the product will also become a significant financial loss in product development. Oftentimes the damage due to quality lapses cause the product rejected in the market (Kritzinger, 2017).

Assessment of the quality of a product is crucial in assessing the competitiveness of a business. Competitiveness is a condition in which there will be adjustments to market standards in every product and service provided (Purnasari and Yuliando, 2015). In assessing quality, an indicator that comes from a guideline is required (Angela, 2017). Guidelines that serve as a standard for assessing quality in this research are Japanese product standards and product standards CMT (China, Malaysia and Taiwan). The existence of a standard will exert effect to the production result in the process of quality improvement to achieve outcomes which have been targeted. This will increase the competitiveness of Jember district's stone craftsmen.

Product competitiveness

It is well known that quality improvement will be directly related to market competition to support a company's activities. The competitiveness of a company/country is a situation where a company can supply products and services on a market that has been adjusted to existing market standards (Fathi and Ahmadian, 2016). The notion of competitiveness also has numerous variations each year. Nazemi and Mashayekhi (2015) in their research define the competitive activity of a product as an economic calculation related to the cost of the resulting product. In their research, it is found that in order to create and measure the product competitiveness, a record concerning routine about product results each year is required.

It is well known that there are various types of competition in a market and not all types of competition are good. Competition is a perfect competition that will facilitate the regulators in organizing and managing the competition (Littlechid, 2017). The expected competition in a market is a normal competition without any disfunctional competition factor that comes up with injustice or maturity and is often illegitimate (Li and Li, 2009). In empirical study, it was found that a company's strategy will directly impact the competition of the company. This strategy is a step in probing the level of failure or damage within the company itself (Zhang and Gallagher, 2016). So, it can be said that the determination of a competition of a company should be based on the determination of strategy to overcome the damage to the company's production process. As a corollary, the need for control to create and maintain

business' competitiveness is a must. Competition in outline can force companies to focus more on seeking effective strategies (Du, Kim and Aldrich, 2016).

Statitical Process Control (SPC) as a Quality Indicator

Statistical Process Control (SPC) is a tool that operates measurements to monitor processes and look for major changes (Ling, 2006). The measurement indicators of a quality must be able to describe the quality of care and service proven through observation (Edward, 2017). SPC provides analytical tools to understand the variations shown by quality measures to make improvements (Alan, 2012).

To monitor the variation of quality performance on the basis of the level of facilities and the level of individual use, cross-sectional analysis as shown in the control chart using SPC is used. Control limits are set within the coverage of empirically justified values and theories (Kabeya, Y. et al 2013). The control limit will be a chart that gives a mark indicating that the data has exceeded the control limit of the distribution process at a time. The design of the SPC chart can apply the p value or percentage observed and be calculated based on the assumption of the process in control. The p value approach provides the benefit of sign strength information and how the performance of the process is stable at a given point in time (Li, Z. et al., 2012). Statistical process control (SPC) is a popular technique for maintaining process control charting. Statistical process control is applied to secure the suitability between cluster and the established standards. The control chart to monitor the mean or variance of chosen variable is significant to affect the quality of the process or product. The basic characteristics of unvariate Shewhart charts are cover the center line (CL), the upper control limit (UCL), and The Lower Control Limit (LCL) (Koutras, M. et al., 2017). Retrospectively, the application of statistical process control (SPC) uses the average parameters and range (Xbar-R) in detecting changes, whereas to monitor the process that occurs 2 control charts are at work, i.e. the average chart for X subgroups and range charts for subgroups B (Able, C. et al., 2011). The specific cause information on the variation required determines the performance significantly good or bad for statistical process control (SPC).

The SPC can be analyzed using a range of 3 and 2 standard deviations from the mean to find upper and lower limits of control. Smaller range aims to reduce the likelihood of incorrectly assuming a common cause of variation (Dey et al.1994). Control process can be done based on 3 transformations of logarithmic parameters for the variation coefficient in dealing with size aspect of variable sample, gaining formula to calculate Average Run Length (ARL), standard deviation of ARL, and average sample size. Tables with optimal graph parameters and compare graphs (Castagliola, P. et al. 2015). Broadly speaking, integrated SPC is used as a slow-trend monitoring tool (Yuniarto, H. and Sriwijaya, R. 2006). There are several tools used in SPC. One tool used in solving decision-making problems is fishbone through identification of problems as a prefix. Furthermore, fishbone is used in building and finding alternative solutions related to process (Yazdani, A. and Moghaddam, R. 2012). Charts are tools for monitoring processes when items of the process are examined and classified into defective or non-defective categories. The purpose of monitoring is to detect changes in the proportion of p-value (Reynold, M. et al 2000). Small shifts in the process of production variation tend to increase due to new sources of variation, such as people and materials (Sheu, S. and Tai, S. 2006). Control chart generally has constant normal mean distribution process and variance will be one of the most effective techniques in Statistical Process control (SPC) to improve the quality of ownership and productivity of production process. As change occurs in the mean and/or standard deviation, the control chart should trigger an alarm according to out-of-control circumstance. However, there are many quality characteristics having in-control means μ fluctuate over time and the standard deviation σ varies with mean (Amdouni, et al. 2005).

3. Research Method

Research Context

This research operationalized exploratory approach (exploratory research) and aimed to evaluate the quality of plate stone products from various aspects (attributes) which served as the research crux, that is the standard attribute of quality of thickness, color, and flatness. Assessment of quality served as the basis for identifying the causes of poor quality, with countries namely Japan, China, Malaysia and Taiwan being the target market. Evaluation of the stone plate quality produced by craftsmen was needed as a strategic material to improve the competitiveness of stone craftsmen in Jember District.

The quality assessment results on the quality performance of handicraft stone stone industry as the object of research will be obtained through the use of Statistical Procces Control (SPC). In this study, the standard quality of stone plate products consists of 2 standards, namely Japanese product standard and product standard CMT (China, Malaysia and Taiwan) using range 1 and 2. Data were be analyzed using three lines in the control diagram, inter alia: the center line CL), which was the average of the defective proportions, the upper control limit (UCL), the lower control limit (LCL), all of which are illustrated by the formula. Efforts to improve the quality obtained from the analysis conducted were recommended through fishbone in the form of alternative solutions related to the production process.

Population and Sample

The research involved all stone craftsmen in Jember Regency of Indonesia who had not been able to export their products. The sampling technique used was saturated sampling technique. There were 6 stone plate craftsmen who become the classified samples into two groups, namely the craftsmen who become benchmarks and craftsmen are analyzed. Craftsmen who became benchmarks were CV. Grace while the craftsmen under investigation were non-exporter craftsmen, Bambang Sutrisno, Imam Sugianto, Abd Laisis, Karimullah, and Moh. Pony Pin.

Data Description

This study analyzed primary data on the quality of plate stone from benchmark craftsmen and craftsmen analyzed. The data obtained were quantitative and qualitative. Data collection was done by interview, observation, and documentation. Data analysis was executed in several stages. The first stage is the identification of quality standard specifications of Japanese stone products. This specification was obtained by conducting in-depth interviews with the craftsmen who became the benchmarks. The standard quality control attributes of Japan and the CMT standard (China, Malaysia, Taiwan) were determined based on the results of the interview. The second stage was the collection of data regarding the attributes of the quality of stone plate products on 5 craftsmen under investigation. This data collection was done by direct observation (using check sheet) at 9,195 units of products produced by craftsmen which were analyzed within one month of production. The third stage was an attribute quality analysis using a control chart, that was a Statistical Process Control tool. This analysis resulted in a conformity level of the quality of craftsmen products analyzed against standard specifications of export products. The fourth stage was to find the most dominant attribute that caused quality mismatch by applying Pareto Diagram. The last stage was identifying the cause of quality mismatch by using causal diagram. Based on the identification of these quality nonconformities, several quality improvement efforts were recommended.

4. Result and Discussion

The first step to be done was the identification of Japanese quality standard specifications and the CMT (China, Malaysia, Taiwan) standard of stone plate products. Based on in-depth interview at CV.Rahmat (benchmark of stone plate industry), the study obtained standard specification on stone quality plate with the destination countries including Japan, China, Malaysia and Taiwan. In-depth interview was conducted on 1 and 2 April 2017 and direct observation was done on 10 x 10 cm stone plate samples, consisting 1600 samples. The results obtained were the sales system calculated in the number of meters by using manual techniques (handicraft) with the workmanship using a simple hammer tool and iron cutter peg. Stone plate had 2 types, rough and smooth one. For the production of handicraft materials, smooth-stone plates were used. In addition to these types of stone plates, 2 colors, red and green, were evident. Export standards obtained from interviews conducted were 3 basic attributes of flatness measured based on the surface of stone plate products relative on one side. The thickness iwas measured based on a measuring standard of 1.5 cm to 4 cm. If the stone plate product thickness ranges from 1.5 cm to 4 cm and there is a tilt of about 0.5 cm, the product could be said to be defective. Also, the color of the stone plate product had to have a uniform color composition.

The second stage was the collection of attribute data on non-export craftsmen consisting of craftsmen Bambang Sutrisno, Imam Sugianto, Abd Laisis, Karimullah, and Moh. Pony Pin. There were seven kinds of batunoiring products produced by the craftsmen, including product A, B, C, D, E, F, and G. This data collection was done by direct observation (using check sheet) on 9.195 data regarding products manufactured by the craftsmen within one month of production.

Based on the Table of the total production involving 9,195 products manufactured within a period of one month for the Japanese-standard products, 6,615 (70%) products did not meet the criteria of quality products while for China, Malaysia and Taiwan standards 4,887 (53%) products were found damaged. Observations were done on 5 craftsmen grouped by type of size coded as A, B, C, D, E, F and G. The largest number of samples were C and E product types tailored to the production of all stone craftsmen in Jember. This grouping was done to generate the quality bases of stone craftsmen in Jember District.

The data analysis was done by using two types of standards, namely Japanese quality standards consisting of 3 attributes with very critical acceptance criteria, i.e. flatness on one side, which must be flat in terms of surface. Furthermore, if there was one uneven side then the product was still said to pose fine quality according to the flatness attribute. The second attribute was the thickness seen in the range of 1.5 cm to 4 cm with a tolerance difference and tilt of 0.5 cm between sides. The third attribute was the color with the criteria by which one product had to have a uniform color (red and green). If there was any color variation in one product then it was considered defective in the color attribute.

The second standard was the CMT standard (China, Malaysia, and Taiwan) using only one quality control attribute in terms of thickness only. The attribute focus in standard CMT in terms of thickness was measured by a range of 1.5 - 4 cm with 0.5 cm side tilt tolerance. Therefore, the production of the products manufactured by the five industries in Jember district was more defective when scrutinized by Japanese product standards.

The third stage was the analysis phase of the previous stage by using the attribute control diagram. The attribute control diagram was measured by the value of the product data recorded by the standards used by range 1 and 2 for the Japanese product standard and the CMT product standard (China, Malaysia and Taiwan). The control chart presented the distribution of production data plots from product data produced by the five industries of Jember district's stone craftsmen. The production data plots were measured by UCL (Upper Control Limit), CL (Center Line) and LCL (Lower Control Limit) lines based on product quality

standards operative. The UCL, CL, and LCL lines illustrated the product quality capabilities generated by the five industries, evincing whether the production data plots were still within the control line or out of the control line.

There was a clustering of 9,195 small samples that were sampled by the size of plate stone products. The grouping was done every half square meter of plate stone product dimension, which was different for each kind. In code A stone plate products with a size of 9 x 9 cm, there were 12 large samples. Product code B stone plate with a size of 10 x 10 cm included 31 large samples. Product code B stone plate with a size of 20 x 5 cm covered 59 large samples. Product code D stone plate with a size of 25 x 5 cm included 19 samples of large products. Code E stone products plate with a size of 30 x 5 cm consisted of 83 large samples. Product code F stone plate with a size of 30 x 15 cm there included 21 great samples. For code G products stone plate with size 30 x 30 cm included 51 large sample.

Large sample in the diagram were as control plots to be measured production data using three lines, including UCL (Upper Control Limit), CL (Center Line), and LCL (Lower Control Limit). The third line was calculated based on the number of ranges used and the number of range 1 and range 2. As a result, that produced 12 lines, inter alia: Japan CL1, CL2CMT, CL1CMT, Japan CL2, Japan UCL1, UCL2CMT, UCL1CMT, Japan UCL2, Japan LCL1, LCL2CMT, LCL1CMT, and Japan LCL2. UCL line showed the control limit lines, CL represented a cap on the average, and the LCL was the lower control limit lines. Each plot of production data was spread between the three lines. Plot production data was said to pass the test if the quality control of the data plot did not exceed the line UCL and should not be less than LCL or plot line production data were within UCL and LCL.

From the overall large sample on each product code analyzed using Japanese standard control charts applying the 1st range figures, the following conclusions are drawn. A plate stone product of code A was 12 out of 12 production data plots out of tolerance lines, plate stone product B code was 31 of 31 Plot production data out of tolerance line, stone product plate C code included 59 out of 59 plot of production data out of tolerance line, stone product plate code D included 18 of 19 plot production data out of tolerance line, stone product plate code included 81 out of 83 production data plots out of the tolerance line, the F-plate stone product contained 19 of the 21 production data plots out of the tolerance line, and the G-plate stone product has 51 of 51 production data plots out of the tolerance line.

From the overall large sample on each product code analyzed using Japanese standard control charts using the range 2, the present study drew the following conclusions: Plate products of code A included 6 of 12 production data plots out of the tolerance line, the plate stone products of code B included 28 out of 31 Plot production data out of tolerance line, code C stone plate products covered 41 out of 59 plots of production data out of tolerance line, stone product plates with code D included 13 of the 19 production data plot out of tolerance line, stone product plates with code E included 61 out of 83 production data plots out of tolerance lines, the F-plate stone products included 10 of the 21 production data plots out of the tolerance line, the G-plate stone products consisted 17 of 51 production data plots out of the tolerance line.

From a large sample of each product code analyzed using the standard CMT control charts (China, Malaysia, and Taiwan) using the 1-point range, the following conclusions were drawn: code A plate products included 12 out of 12 production data plots out of tolerance lines, stone plates of code B included 30 out of 31 production data plots out of tolerance line, stone plate product of code C covered 59 out of 59 production data plot out of tolerance line, stone plate products with code D consisted 19 out of 19 plot production data out of tolerance line, stone plate products with code E covered 83 of 83 production data plot out of tolerance line, stone plate products with code F covered 17 of 21 production data plot out of tolerance line, stone plate products with code G encompassed 34 of 51 plot production

data which came out of the tolerance line.

From a large sample of each product code under analysis using the standard CMT control charts (China, Malaysia, and Taiwan) using the range 2 figures, the following conclusions were drawn: plate stone products of code A consisted of 10 of 12 production data plots out of tolerance lines, stone plates of code B covered 28 out of 31 production data plot out of tolerance line, stone plate product of code C covered 47 out of 59 plot of production data out of tolerance line, stone plate products of code D consisted of 15 out of 19 plot production data out of Line tolerance, stone plate products of code E covered 50 out of 83 plots of production data out of tolerance line, stone plate products of code F covered 11 out of 21 plots of production data out of tolerance line, stone plate products of code G consisted of 21 of 51 plot data production which were out of the tolerance line.

The analysis based on the number of products of each type using the Japanese standard with a classification of 1 range evinced that almost all of the products were found unfeasible for exports and some codes were found to have defect rate below 100% such as code D (95%), E (98%) and F (90%). When looking at the results of the analysis in using 3 basic attributes of jember district, the stone craftsmen hardly reached the Japanese quality standards. While in the analysis done using standard CMT with the classification of range 2 (medium criterion), the study corroborated, for plate stone products manufactured by stone plate craftsmen in Jember, the following percentages of product defect: code A (83%), code B (90 %), code C (80%), code D (79%), code E (60%), code F (52%), and code G (41%). Based on CMT analysis, the craftsmen under investigation barely met the specified CMT standard. The other results obtained in the analysis proved the tendency of defects decreasing when the product size increased.

Figure 5. Pareto Diagram

The next stage, the fourth one, was the data analysis done in the form of pareto which described the percentage of attribute quality regarding the cause of defect product. Based on the analysis done using pareto diagram, the bigger dominant attribute classification was evident, including thickness (47,33%), flatness (44,22%), and color (8,46%). The attributes of thickness and flatness significantly affected the quality of plate stone products in meeting the quality standards. The color attribute was not significant in affecting the quality of plate stone products manufactured by the plate stone craftsmen in Jember district.

The results of pareto analysis found that there was a relationship between the product size and the quality of plate stone products manufactured. The larger the size of plate stone products, the greater the possibility of defective products. This was evident of the difficulty in the process of producing stone plates in meeting predetermined quality standards. With regard to flatness attributes, the flatter area which had to be met, the more difficult it was for the craftsmen in meeting the qualification. By contrast, in the case of plate stone products measuring 30 x 15 cm and 30 x 30 cm, which were marked with code F and G, such defects were not evident. The reason for the fine quality of product F and G in that they were not affected by the size of the product was because the raw material used was high-quality plate stone.

The next stage was data analysis using cause-effect diagram or fishbone to find the cause of defective product. Based on the overall analysis, there were factors that affected and caused damage to the products. The causal diagram was classified into five factors as follows: 1) Man, there was a clear need for Standard Operating Procedure (SOP) in the production process, training of craftsmen from senior stone craftsmen in accordance with established quality standards, evaluation, and control on the performance of the craftsmen; 2) Method, it was necessary to sort the raw materials based on attributes to be processed. If the raw materials were less suitable to be sorted back for reprocessing and if the raw

materials could not be reprocessed, it would be used as waste products in the form of cast stone, random cut stone plates, and random comb plate stone; 3) Machines, treatments and standard selection of tools were necessary. For example, the peg coating, the type of pegs and hammers used and when they were used had to be well adjusted. Also, the equipment had to be adapted to the type of plate stone size; 4) Materials, raw materials used in producing plate stone of codes A, B, C, D, and E used fine stone plates with standardized quality/normal. By contrast, the type of stone plate products of code F and G used fine stone plate with the number-one or high quality material; 5) Managerial, it was inevitable to establish planning, organizing, and good supervision to make better industry performance that directly impacted on the quality of the resulting products.

5. Conclusion

The assessment using exploratory approach (exploratory research) on the quality of stone plate products conducted in Jember-Indonesia on 6 plate stone craftsmen scrutinized two groups, the first CV. Rachmat (benchmark) and non-export craftsmen Bambang Sutrisno, Imam Sugianto, Abd Laisis, Karimullah, and Moh. Pony Pin (the object of analysis). The analysis was based on two quality standards, namely Japanese standard and CMT standard (China, Malaysia and Taiwan) using range 1 and 2. Based on the data comprising of 9,195 plate stone products analyzed through control diagram, these products were hardly commensurate with the 1st ranked quality standard of Japan products which implemented rigorous evaluation. The data obtained evinced that only 3 types of products were found to pose defect below 100%, i.e. product of code D (95%), E (98%) and F (90%). On the other hand, within the standard quality of CMT at range-2 product (China, Malaysia and Taiwan), there were variant data stating that the product could not reach the quality of these countries. The data indicated the following percentages of product defect: A (83%), B (90%), C (80%), (79%), E (60%), F (52%), and G (41%). Another result of the overall collection of products based on 3 attributes using the pareto diagram corroborated that overall attribute defects pertained to thickness (47.33%), flatness (44.22%), and color (8.46%). The resultant data and analysis result were put into another analysis using fishbone analysis, resulting in the following recommendations of quality improvement: 1) improvement of Standard Operational Procedure (SOP), training, evaluation and control on the performance of the craftsmen is urgently required; 2) improvement in the method of selecting attributes to be processed is called for. It is also necessary to carry out sorting for further re-process, and if material can not be re-processed, it is suggested to be a product of economic value added waste in the form of cast stone, random cache and random combs; 3) standard care and selection is required for the equipment used such as the peg coating, the type of pegs and hammers used; 4) need the existence of the election of the type of smooth stone standard / normal as a plate stone handicraft Code A, B, C, D and E. While the production of plate stone code F and G using raw materials in the form of fine stone plates with high quality; 5) There needs to be planning, organizing, and good supervision as improvement endeavour to the craftsmen's performance.

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G20 Impact on Industrial Development in Indonesia

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Abstract

G20 (group of twenty) is an international economic movement in which developing and developed countries gather to form a high level converences summit to maintain the stability of the global economy. Background G20 formation due to the world economic crisis in 1998 which consists of 20 countries that affect the world economy where 20 countries hold 85% of world GNP 75% of total world trade and 2/3 of the world population. Indonesia is one of the G20 member countries. By becoming a member of the G20 certainly has an impact on the sectors of the Indonesian economy including the industrial sector. This study was conducted to determine the impact of the high level converences G20 summit on the Indonesian industrial sector. Researchers focus on non oil and gas industry where non oil industry contributes 30.75% from 44.92% of industry to GDP. The method used is the result of thinking by contrusion through literature study that comes from journals and websites. The results of the thought show that Indonesia as a member of the high level converences G20 summit has a significant impact on industrial sector of Industry which is increasing every year and industrial sector contribute 1 trillion US $ to Indonesia's GDP.

Keyword: Non oil, sector industry, high level converences G20

Determinant of Stock Return (Study on Cosmetics and Household Firms)

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Abstract

This study aims to determine the effect of gross profit, cash flow consisting of operating cash flow, investment cash flows, and funding cash flow as well as ROA and company size to return the company's shares in the cosmetics sub-sector and household needs. The population in this study is the company on the cosmetic sub-sector and household needs listed on the BEI in the period 2009 to 2016. Sampling technique used in this study is purposive sampling with the final total of 4 companies that meet the criteria. There are six variables used in this research. The analysis method used is multiple linear regression analysis. The results showed that the gross profit and ROA partially no significant effect on stock returns. Operating cash flows, investment cash flows, funding cash flows and firm size partially have a significant effect on stock returns.

Keywords: Gross Profit, Cash Flow Operation, Cash Flow Investments, Cash Flow Funding, ROA, Company Size, Stock Return

1. Introduction

In an increasingly competitive era of business world, the survival and development opportunities of the company are strongly influenced by the availability of funds and access to funding sources. One source of external funding for companies is the capital market. "The capital market is where various parties, especially companies selling stocks and bonds with the purpose of the sale will be used as additional funds or to strengthen the company's capital" (Fahmi, 2012: 52). The capital market is a tool used to channel funds from the community to various sectors to carry out investment activities in the form of securities. One type of securities investment is stock. "Shares are proof of participation or ownership of capital or funds in a company" (Fahmi, 2012: 85).

Manufacturing companies listed on the Indonesia Stock Exchange (IDX) are divided into three types: basic and chemical industry, miscellaneous industry, and consumer goods industry sector. The company manufacturing the consumption sector is a company that produces the most basic needs of the community. The sub-sector of manufacturing sector of consumption sector is industrial sector which is engaged in food and beverage, cigarette, pharmaceutical, cosmetic and household utilities, and household appliances. Cosmetic and household needs sub-sectors are high demand industries in Indonesia. Increasing demand for cosmetic products and household needs is closely linked to the number of sales companies means more demand for the product means the number of sales is also higher. Here is a diagram of the amount of sales based on the financial statements of each company on the cosmetics sub-sector and household needs for the period of 2009 to 2016:

The result of this research shows that the number of sales in each company each year during the period 2009 to 2016 tends to increase. The high level of demand that is closely related to the level of sales is influenced by the increase in the population. Increasing number of residents shows also increase the number of people who have purchasing power. Increasing public purchasing power affects the level of demand for cosmetic products and

household needs. The number of companies that try business profits in Indonesia makes investors difficult in choosing the most profitable company shares. Increase in the number of product demand from the public will make the stock price changes so that investors are difficult to predict the results to be obtained from investments that have been made in the form of shares. Changes in stock prices that occur also affect the stock return changes that will be accepted by investors.

The purpose of investors when choosing to invest their funds in the capital market is to get a high return from the investment. "Investments are likely to increase, indicating that the country's economy is on the rise. Conversely, decreased investment can mean that the country's economy is also declining "(Isti Fadah, 2016). "Return is an important motivation and principle in investment and key that allows investors to decide on alternative investment options" (Setiyono, 2016). Investors who will invest in the stock market first see which company shares are most profitable by assessing the performance of the company concerned. Companies that perform well enough will be more in demand by investors because the company's performance affects stock prices in the market. Investors will buy shares according to the company's current performance and prospects in the future. Therefore, the increased performance of the company will affect the rising stock prices and stock returns that can be accepted by investors. A benchmark of company performance that can attract investors and creditors is profit and cash flow. To evaluate the company's performance the existence of profit and cash flow is considered as complementary. Not only profit and cash flow but financial ratios and firm size are also needed by investors to assess company performance. One of the financial ratios in this study used by investors to assess the company's performance is Return On Assets (ROA).

Gross profit is profit derived from net sales less the cost of goods sold (HPP). According Syamsuddin (1992: 61) the greater the gross profit (gross profit) then the better state of operation of the company, because this indicates that the HPP is relatively lower than the sales. The profit used in this study is the gross profit to see the effect

According to PSAK No. 2 cash flows are the inflows and outflows of cash or cash equivalents. Cash equivalents can be defined as short-term, liquid investments that can quickly be converted to a certain amount of cash without facing significant risk of value changes. Since the enactment of PSAK No. 2 financial reports have undergone many changes mainly related to cash flow. The statements of financial position should not be presented in the form of a cash flow statement, but must be in the form of a detailed cash flow statement into the cash flow components of operating activities, investment activities, and financing activities. The effect of cash flows on stock returns is when changes to published cash flows provide a positive signal to investors and cause investors to react to buy or sell stocks, which is further evidenced by increasing stock returns, and that means cash flow statements have a very important information investors.

Return On Assets (ROA) is one type of profitability ratio which is the main ratio in all financial statements because the main purpose of the company is the result of operation or profit. According Syahyunan (2004: 85) ROA shows the ability of companies to generate profits from the assets used. The amount of the calculation of return on assets shows how much the ability of the company to generate profits available to ordinary shareholders with all assets owned. Return On Assets (ROA) reflects how much the company has gained on the financial resources invested in the company (Munawir, 2002: 269). The existence of ROA needs to be considered by investors in investing because ROA acts as an indicator of company efficiency in using assets to earn profit. The higher the ROA, the greater the level of profit earned by the company and the effect on the amount of returns obtained by investors after investing. According to Ginting (2012) if the ROA of a company is high then it

can be said that the company operates effectively and this can attract investors. Increased attractiveness of investors will affect the increase in stock prices and stock returns of the company.

The study adds firm size as independent variable on the grounds that investors invest their capital by considering the size of the company. The size of the company will affect the ability to bear the risks that may arise due to various situations faced by the company related to its operation. Investors and creditors also consider the financial characteristics of each company. The different financial characteristics of each company leads to unrelated relevance of accounting numbers in all firms. The size (size) of the company can be used to represent the financial characteristics of a company (Indriani, 2009).

This study aims to analyze the effect of gross profit, operating cash aru, investment cash flow, funding cash flows, ROA, and company size to the company's stock return on the cosmetics sub-sector and household needs. The population in this study is the company on the cosmetic sub-sector and household needs listed on the BEI in the period 2009 to 2016. Sampling technique used in this study is purposive sampling with the final total of 4 companies that meet the criteria. There are six variables used in this research. The analysis method used is multiple linear regression analysis.

2. Research Methods

Research Design

According Sugiyono (2014: 2) understanding of financial methods is basically a scientific way to get data with a specific purpose and usefulness. The type of research above is descriptive and quantitative research conducted through data collection of each company. Quantitative research method is a research method based on the nature of positivism, used to examine the population or a specific sample that aims to test the hypothesis that has been established (Sugiyono, 2014: 14). Type of research used in this research is explanatory research. Explanatory Research is a research used to explain the causal relationship between independent variables to the dependent variable through testing the formulated hypothesis.

Population and Sample

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 (Sugiyono, 2014: 34). The population in this study is the company on cosmetic sub-sector and household needs listed on the BEI in the period 2009-2016.

According Sugiyono (2014: 35) sample is part of the number and characteristics possessed by the population. Sampling is done by purposive sampling is a technique of intake of samples done intentionally and has been in accordance with all the requirements of the sample that will be required. The criteria used to select the sample as follows:

1. The Company made a profit in 2009 through 2016
2. The Company is not delisting during the period 2009 to 2016
3. The Company has published and published audited financial statements for the period 2009 to 2016
4. The company has data on the variables required in the full research

Based on all sample criteria mentioned, it is found that from 6 companies in cosmetic sub sector and household sector there are 4 companies that meet the criteria specified and 2 companies do not meet the criteria because the first KINO did not publish the audited financial statements in 2009 until with 2014 and the second new MBTO offering IPO shares in 2011 so that for stock return variables can not be calculated.

Types and Data Sources

The type of data used in this study is quantitative. Sources of data used are secondary data. Secondary data is a source of research data obtained by researchers indirectly but through intermediary media. This study received secondary data from the Indonesian Stock Exchange (IDX) to see the names of companies and data audited company financial statements.

Method of Collecting Data

Data collection time in this research is cross section and time series data. Cross section data is data collected at a certain period on some objects in order to describe the situation. Time series data is data collected from time to time on a single object in order to illustrate the development of the object (Siregar, 2013: 16). Data collection method in this research is pooled data. Pooled data method is a combination of cross section data and time series data. So in this study obtained the number of observations (data) based on pooled data for 8 periods that is as much as 32 (4 samples x 8 period).

Data Analysis Method

Data analysis used in this research use application with data normality test, multiple linear regression analysis, classical assumption test, and hypothesis test.

3. Research Results

Test Data Normality

The data normality test aims to test whether the research data is normally distributed or not. A good regression model is one that has a normal or near-normal distribution of data. Because the data in this study amounted to less than 50 samples then this study using Shapiro Wilk test using a significance level of 0.05. Data is otherwise normally distributed if the significance is greater than 5% or 0.05. If the value p> α, then received, it means that the variable is distributed norm.

Based on the data normality test results can be seen that the level of all significant variables of more than 0.05 or 5% so it can be concluded that the research data has been distributed normally.

Classic Assumption Test

After doing Classic Assumption Test that is Multicolinierity Test, Autocorrelation Test, and Heteroskidasticity Test can be concluded that there is no problem of classical assumption in this research or can be said that the test result obtained BLUE (Best Linear Unbias Estimator).

Multiple Linear Regression Analysis

According to Siregar (2013: 301) multiple linear regression analysis is the development of simple linear regression, which is equally a tool that can be used to predict future demand based on past data or to know and measure the influence of independent variables on variables bound (independent). Multiple linear regression tests the effect of two or more independent variables (explanatory) on one dependent variable (Ghozali, 2014: 19). In this study tested the effect of independent variables in the form of gross profit, operating cash flow, investment cash flow, funding cash flow, ROA and company size to the dependent variable in the form of stock returns. Here are the results of multiple linear regression equations using SPSS. Based result of this research, we can compile the following equation:

Stock Return=12,773-4,484E-15+6,705E-13+4,699E-13-7,343E-13+1,334-0,468+e

From the multiple linear regression equation above the gross profit (X_1) has a coefficient value of 4.484E-15. The positive coefficient value indicates that gross profit positively influence to stock return of cosmetic sub sector company and household need period 2009 until 2016.

Operating cash flow (X_2) has a coefficient value of 6.705E-13. The positive coefficient value indicates that the operating cash flow variable has a positive effect on stock return of cosmetics sub-sector and household needs from 2009 to 2016 period.

Investment cash flow (X_3) has a coefficient value of 4.699E-13. The positive coefficient value indicates that investment cash flow variable has a positive effect on stock return of cosmetics sub-sector and household needs from 2009 to 2016 period.

Funding cash flow (X_4) has a coefficient value of -7.343E-13. The negative coefficient value indicates that the variable of cash flow of funding has a negative effect on stock return of cosmetic sub sector company and household necessity for period of 2009 until 2016.

ROA (X_5) has a coefficient value of 1.334. The positive coefficient value indicates that ROA variable has a positive effect on stock return of cosmetic sub sector company and household needs from 2009 until 2016 period.

Company size (X_6) has a coefficient value of -0.468. The negative coefficient value indicates that firm size variables have a negative effect on stock return of cosmetic sub sector company and household need period 2009 until 2016.

Hypothesis testing (Test t)

The t test according to Ghozali (2014:23) basically shows how far the influence of an individual explanatory or independent variable in explaining the variation of the dependent variable. T test is done to determine the effect of independent variables partially to the dependent variable. To test the influence of independent variables partially to dependent variable used sig level α = 5%.

Hypothesis decision making:

1. If ρ-value> α then accepted, it means partially independent variable has no significant effect on the dependent variable.
2. If ρ-value <α then rejected, it means partially independent variables significantly influence the dependent variable.

Here are the results of statistical tests t to determine the effect of independent variables partially to the dependent variable:

Based on the result. it can be seen from the influence of each independent variable to the dependent variable Gross Profit (X_1). It can be seen that the significance level (α) of the gross profit variable (X_1) is 0.231> 0.05. This means that gross profit variable has no significant effect on stock return (H_1 is rejected). Operating Cash Flow (X_2) . it can be seen that the significance level (α) of the operating cash flow variable (X_2) is 0.035 <0.05. This means that the operating cash flow variable has a significant effect on stock return (H_2 received). Investment Cash Flow (X_3). It can be seen that the significance level (α) of the investment cash flow variable (X_3) is 0.021 <0.05. This means investment cash flow variables have a significant effect on stock return (H_3 accepted). Cash Flow Funding (X_4) based on Table 3. it can be seen that the significance level (α) of the funding cash flow variable (X_4) is 0.029 <0.05. This means that the variable of cash flow of funding has a significant effect on stock return (H_4 received). ROA (X_5) based on Table 3. It can be seen that the significance level (α) of the ROA (X_5) variable is 0.277> 0.05. This means that ROA variable has no significant effect on stock return (H_5 is rejected). Company size (X_6) based on Table 3. it can be seen that the significance level (α) of the firm size variable (X_6) is 0.040 <0.05. This means that firm size variables have a significant effect on stock return (H_6 accepted).

4. Discussion

Effect of Gross Profit on Stock Return

Based on regression analysis obtained significant value> 0,05 that is equal to 0,231 mean not significant mean hypothesis rejected. Partial gross profit has no significant effect on stock returns. The company's gross profit is not considered to reflect the overall condition of the company so it can not affect the stock return rate (Margareth, 2012). In addition, based on financial statement data in this study shows the total gross profit obtained from net sales minus HPP owned by the company during the period 2009 to 2016 is unstable so that investors can not predict the return that will be obtained after investing funds in the company. This makes investors pay less attention to gross profit factor in making investment decisions. This research is not in accordance with research conducted Utari (2006) which states that partially gross profit affects the stock return. The mismatch of research results is caused by differences in capital market conditions studied, sample characteristics, number of observations, and period of study. The results of this study are also not in accordance with the theory of Febrianto (2005) which shows that the gross profit has a better profit quality compared to operating profit and net income presented in the income statement, because it is more operative and able to provide a better picture of the relationship with the profit stock prices are closely related to stock returns.

The Influence of Cash Flow from Operating Activities to Stock Return

Based on regression analysis obtained significant value <0.05 that is 0,035 means significant mean hypothesis accepted. Operating cash flow is partially significant effect on stock return. Operating cash flow can be a parameter in predicting stock returns because the management of the company and the investors are aware that operating cash flow guarantees the company in carrying out its business activities in the future. This research is not in accordance with research conducted by Triyono and Hartono (2000) which states operating cash flow has no significant effect on stock return. The insignificant effect of operating cash flows on stock returns as investors in the year of observation focused on the instability of the global economy. The instability of the global economy greatly affects stock prices. Therefore, an increase in operating cash flow does not affect investors' decisions. But the results of this study in accordance with research conducted by Adiwiratama (2012) which states cash flow from operating activities partially have a significant effect on stock returns. The results of this study indicate that investors see reporting changes in cash flows from operating activities as information that can be used for investment decision-making. The amount of cash flows generated from operating activities generates sufficient cash flows to repay the loan, maintain the operating capability of the company, pay dividends and make new investments also seen by investors in making investment decisions. So that the changes in cash flow from operating activities is a positive signal for investors.

The Influence of Cash Flow from Financing Activities To Stock Return

Based on the regression analysis obtained significant value <0.05 that is 0.29 means significant mean hypothesis accepted. The partial funding flow has a significant effect on the stock return. This means any increase in expenditures for financing activities is followed by an increase in stock returns. Cash flows from financing activities are considered as relevant information by investors as a basis for investment decision making. The effect of funding cash flows on stock returns as funding cash flow reflects a more direct relationship with corporate funding. A positive cash flow resulting in changes in the amount and composition of the company's capital and lending. While the amount of the loan repayment, the addition of paid up capital or cash dividend payment is very dependent on company policy, so that the condition of funding cash flows can affect the performance of the company in general

and consequently also can affect changes in stock price of the company. This is not in accordance with research conducted by Adiwiratama (2012) stating that cash flow from financing activities has an insignificant effect on stock returns because investors do not see or have not used the cash flow of funding as a consideration in making investment decisions and investors assume that high funding cash flows are less well considered in corporate performance.

Influence Return On Assets (ROA) Against Stock Return

ROA has a significance level of 0.277> 0.05. It shows that partially ROA has no significant effect on stock return, so the hypothesis that ROA has a significant effect on stock return is rejected. This is because the company is less efficient in managing its assets and inadequate in managing the existing investment so that the profit is not maximized and the increase of company's assets is not accompanied by the increase of stock return (appendix 8). This is in line with research that has been done by Setiyono (2016) that ROA has no significant effect on stock returns. ROA shows the effectiveness of the company utilizing its assets to generate net profit after tax. But in this research found that ROA has no significant effect on stock return. This shows that the effectiveness of the use of company-owned assets in generating net profit after tax does not become a reference for investors in making an investment decision. Investors do not always use ROA as a measure in assessing company performance to predict a company's return.

Effect of Corporate Size on Stock Return

Company size has a significance level of 0.040 <0.05. It shows that partially firm size has a significant effect on stock returns, so the hypothesis that the size of the company significantly affect the stock return is accepted. The influence of firm size variables on stock returns due to cosmetic sub sector companies and household purposes that become the object of this study has a large amount of assets during the observation period, so the variable size of the company calculated by menggunkaan total assets company can give a significant influence on stock return . The results of this study are not in accordance with research conducted by Setiyono (2016) which states that the size of the company does not significantly affect the stock return because the growth of a company not only seen from the size of the company size. The amount of an asset owned by the company if not managed properly by a company for the operation of a company, it will not be able to generate large profits. Profit that is not maximal will make the stock price decline. Therefore, the large and small of an asset owned by the company will not be able to predict the amount of profits to be gained by a company and return that will be obtained by investors. This causes the investor's lack of interest in seeing the size of the assets owned by the company will make a decision for investment.

5. Conclusion and Suggestion

Conclusion

1. Partial gross profit has no significant effect on stock returns of cosmetic sub sector companies and household needs in the period 2009 to 2016.
2. Operating cash flow is partially significant effect on stock return of cosmetic sub sector companies and household needs in the period 2009 to 2016.
3. Cash flow investment partially significant effect on stock returns cosmetics sub-sector companies and household needs in the period 2009 to 2016.

Suggestion

1. For Investors
   The results show that operating cash flow, investment cash flow, funding cash flow and firm size have a significant effect on stock returns while gross profit and ROA have no significant effect on stock returns so before finally deciding to invest, investors are advised to not only consider the gross profit value and ROA but also other factors that affect stock returns.
2. For the Company
   The company is expected to improve the performance of the company each year in order to be able to compete in obtaining trust from investors making it easier to obtain capital from outside the company. The better the performance of the company then the investor will be more interested to invest funds in the company. This study shows that gross profit and ROA have no significant effect on stock return so that company is suggested to further increase the value of gross profit and ROA in order to be considered in making investment decision.
3. For Academics
   Academics are advised to further explore the factors that may affect the stock return and are expected to be able to choose other sectors that have many companies so that the data obtained more. Disadvantages in this research is expected to be a correction in the development of further research, especially on the effect of gross profit, cash flow, ROA and company size to stock return. Researchers can further improve and refine the limitations of this study and expand the study sample. In addition, further research is expected to add other variables besides variables that have been studied in this research.

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Performance and Ownership in Relation With the Initiation of Dividend Policy

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Abstract

Dividend initiation is the company's policy to pay or not to pay the first dividend post- IPO, in this dissertation modeled as dependent variable, influenced by company performance (consisting of size, growth, leverage, profitability, equity ratio) and ownership structure (institutional, managerial, government, and multiple ownership). The dissertation also examines the difference in average of impacts on stock returns between paying companies and those not paying dividends.

The model used in 4 logit models examines the relationship between company performance and each of ownership structure with dividend initiation. While the 5th model examines the relationship between company performance and all 4 ownerships together with dividend initiation.

From the study results obtained that from all models made, the company's performance variables that significantly influence are growth, ROA, and equity ratio. As for ownership variables that have significant influence is only government ownership. By using marginal effect is known opportunity to pay or not pay dividend initiation. The results on all models that show negative or decreased the chance of paying dividend initiation are size, growth, equity ratio, institutional ownership and managerial ownership variables. While for variables that show a positive or increased opportunity to pay dividend initiation is leverage, ROA, government ownership and multiple ownership variables. The difference between paying companies and non-paying ones of dividend initiation in a stock return is identified by a positive coefficient value or $\alpha > 0$.

Keywords: dividend initiation, marginal effect, company performance, ownership structure

1. Introduction

The dividend policy has a very important impact whether viewed from investors or from companies that will later pay dividends from the policies undertaken through general meeting of shareholders. Investors generally expect to get rewards for investments made in the form of dividends and capital gains. On the other hand, the company also expects the company's continuous growth by using profits as a source of internal funding and at the same time able to provide welfare for its shareholders.

The company's readiness to make the first dividend policy after an IPO called dividend initiation is the first indication of a company with financial capability supported by the prospect of adequate corporate performance to distribute the cash surplus to shareholders. Therefore, it is expected that the company's decision through the GMS to immediately or delay the initiation of its dividend will signal the financial performance of the company. For companies that are able to early / quickly pay their first dividend is seen to have better financial capability in terms of growth opportunities, leverage, size and profitability of the company as well as corporate ownership structure (Sharma, 2001).

The ownership structure also determines how the company runs as it should be because of the agency problem between management and shareholders who share interests in the company's IPO in the stock market.

Dividend initiation policy is measured by dividend payout ratio (DPR). The reason for using the DPR as a dependent variable is because the DPR determines the share of profit to be shared with shareholders and held as part of retained earnings. The dividend theory relevant to this research is signaling theory. The theory of dividends as a signal was developed by Miller and Rock (1985) who argue that dividend announcements contain information about current and future profits. If the dividend announcement is increased it means having confidence that profit will increase.

In a study by Sharma (2001) which stated that in the US the company conducting the IPO would pay the first dividend not early in the year after the IPO, mostly over 3 years, while in Bambang Sugeng's (2009) study which stated in 1990 to 2000 seen that the payment of dividend initiation in Indonesia tends to the company in the first year after the IPO is done by almost all companies whose IPO, but in the year 2000 to 2014 seen from the data collected (table 1.1) not all companies pay dividend and dividend initiation the most is between the years 0-1 to 5 years after the IPO. The current policy of dividend payout initiation in Indonesia from 2000 to 2014 is in contrast to the conditions from 1990 to 2000 in accordance with Babang Sugeng (2009) and Sharma (2001).

In Indonesia, there are data (table 1.1), from companies whose IPO or go public through Indonesia Stock Exchange (BEI) in 2000 to 2014, within 15 years there are 266 companies whose IPO and those who have paid the initiation of dividend are 159 companies or equal to 59.77%, while 104 or 39.23% of companies did not initiate dividends.

Of the companies that make the first dividend payment or dividend initiation, most (113 companies or 71.07%) do it between the years 0-1 and those who do it up to the fifth year are 37 companies or 24.93%, thus from years 0-1 up to the 5th year as many as 150 companies or 96%, while those who pay dividend initiation more than 5 years is 4%.

On the basis of this idea, this research tries to analyze the policy of dividend initiation influenced by company performance and ownership structure at companies listed in Indonesia Stock Exchange (BEI) year 2000 until 2014 which modified with some model such as company performance variable (size, growth, leverage, profitability and equity ratio) with each variable of ownership structure such as institutional ownership, managerial ownership, government ownership, and multiple ownership.

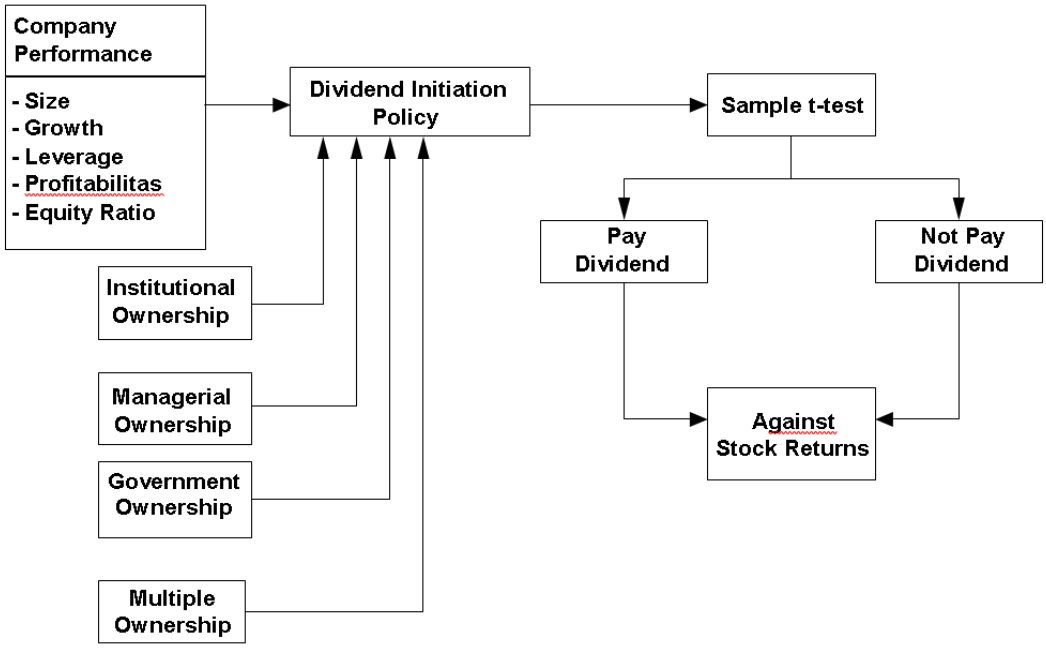
Formulation of the Problem:

1. To figure out whether the company's performance (size, growth, leverage, profitability, equity ratio) and ownership structure (Institutional, Managerial, Government, and Multiple ownership respectively) influences the policy of paying or not paying dividen initiation, with a multivariate approach.
2. To analyze is there any difference between companies whose paying dividend initiation with companies that do not pay dividend initiation against returns or return on stock.

Research purposes:

1. To analyze whether company performance and ownership structure influence policy to pay or not pay dividend initiation, with multivariate approach.
2. To analyze whether there are differences in companies paying dividend initiation with companies that do not pay dividend initiation in term of stock returns.

Framework



Source: Data Processed

Figure 1. Diagram of Framework

Table 1. Payment of dividend initiation after IPO in BEI from 2000 to 2014

Year of IPO	IPO	NO ID	No ID incomp	ID	DIVIDEND INITIATION PAYMENT AFTER YEAR OF IPO													
					0-1	2	3	4	5	6	7	8	9	10	11	12	13	14
2000	21	6	0	15	12	0	1	1	0	1	0	0	0	0	0	0	0	0
2001	31	11	0	20	11	2	0	3	0	1	0	0	0	0	2	1	0	
2002	22	4	0	18	10	2	1	2	0	1	0	1	0	0	1	0		
2003	6	1	0	5	5	0	0	0	0	0	0	0	0	0	0			
2004	12	5	0	7	7	0	0	0	0	0	0	0	0	0				
2005	8	1	0	7	5	1	0	0	1	0	0	0	0					
2006	12	5	0	7	4	2	0	0	0	1	0	0						
2007	22	6	0	16	13	1	0	1	1	0								
2008	19	12	0	7	4	1	1	1	0									
2009	13	5	1	7	3	1	3	0										
2010	23	11	0	12	6	5	1											
2011	25	12	0	13	10	1	2											
2012	22	10	0	12	10	2												
2013	30	15	2	13	13													
TOTAL	266	104	3	159	113	18	9	8	2	4	0	1	0	0	3	1	0	0
% ID	100%	39.10	1.13	59.77	71.07	11.32	5.66	5.03	1.26	2.52	0.00	0.63	0.00	0.00	1.89	0.63	0.00	0.00

source: IDX BEI, processed

2. Research Methods

Object of research

This study will analyze the policy of the company paying and not paying the first dividend after the IPO (dividend initiation) listed on Indonesia Stock Exchange in period 2000 -2014 and the data used is annual data. This study covers the effect of company performance which includes company size, Growth, leverage, profitability using ROA as proxy, equity ratio and company ownership covering institutional ownership, managerial ownership, government ownership, multiple ownership of initiation policy dividend. For the

type of independent variables that include company ownership, a dummy variable is used which includes institutional ownership, managerial ownership, government ownership and multiple ownership if the company has more than one ownership with more than 10% shares.

Method of Collecting Data

The type of data required in this study is annual secondary data from 2000 to 2014, covering IPO data from 2000 to 2013 and the year the company paid the first dividend or called dividend initiation from 2000 to 2014.

Population and Sample of Research

The sample in this study are all companies that do IPO and listed on the Stock Exchange between 2000 and 2014 either pay or not to pay a dividend initiation in which the operational variables contained in the financial statements of the companies that go public.

Operational Definition and Variable Measurement

1. Dependent Variable
   a. The dependent variable on the logistic equation has a categorical value of the probability of policy to pay or not paying for dividend initiation as part of a dividend policy in which the firm gives the first dividend after the IPO is seen from the dividend payout ratio. With a value of 1 if the company pays dividend initiation and 0 if the company does not pay dividend initiation.
   b. Return of Stock is the result (profit or loss) obtained from a stock investment.
2. Dependent Variable
   a. Size Company X
      The larger the size of the firm indicated by total assets, the company will use large amounts of debt as well. The larger the size of the company indicates that the company has a higher amount of assets.

      Size = Total Aktiva

   b. Growth Opportunities
      Is the company's ability to maintain stock prices in accordance with the research.

      PBV = Market Value per Shares/Book Value per share

   c. Leverage
      It is the ratio used to measure the extent to which a company's assets are financed with debt to measure or test the company's financial strength.

      DER = Total Liabilities / Total Assets

   d. Profitability
      Is a ratio that shows the company's ability to generate net income.

      ROA = (Earning after Taxes / Total Assets) x 100%

   e. Equity Ratio indicate the amount of the company's assets financed by equity (share-holders)

      Equity Ratio = Total Equity / Total Assets

   f. Institutional ownership is the proportion of share ownership by the institution, as measured by the percentage of total shares owned by internal institution investors. With a dummy variable the value of 1 for company with 10% or more institutional ownership and 0 for company with less than 10% institutional ownership.

g. Managerial ownership is measured using the ratio between the number of shares owned by managers or directors and the board of commissioners to the total outstanding shares. With a dummy variable of 1 for firms with 10% or more managerial ownership and a dummy variable of 0 for firms with less than 10% managerial ownership.

h. Government ownership is the amount of share ownership by the government compared to the total managed share capital. With a dummy variable of 1 for firms with 10% or more government ownership and a dummy variable of 0 for firms with less than 10% government ownership.

i. Multiple ownership is the possession of more than one type of ownership of institutional, managerial, and/or governmental ownership. Dummy variable value 1 if the company has more than one type of ownership that controls at least 10% of the shares and 0 otherwise (Malkawi, 2007).

Data Analysis Method

1. Logit Model
   The logit model is a non-linear regression model that produces an equation in which the dependent variable is categorical. The most basic category of the model produces binary values such as the numbers 0 and 1. Furthermore, applying natural logarithms to the odds ratio will produce the following equation:

$$L_i = L_n \left(\frac{P_i}{1-P_i} \right) = Y_i = \beta_i + \beta_2 X_i$$

2. Multicolinear Test
   Aims to test whether in the regression model found the correlation between independent variables. A good regression model should not be correlated among independent variables. If independent variables are mutually correlated, then these variables are not orthogonal, where the correlation values among the independent variables are equal to zero.

Hypothesis Testing Technique

1. Significance Test of each Model
   The significance test of each model in the equation using logit method can be done by analyzing the value of Likelihood Ratio (LR) statistic. This test is conducted to see in each model the influence of independent variables to the dependent variable, whether the independent variable in a model affect the dependent variable.
   If the value of p-value is less than alpha (α) then with the confidence level of (1- α) we can reject the null hypothesis or in other words independent variables in the model of the equation together have a significant effect on the dependent variable at the level of confidence of (1 - α).
2. Coefficient of Determination
   Similar to the coefficient of determination in regression in general which can be seen from the value of R^2 and adjusted R^2, on the regression equation using the logit method, the determination of an equation varies based on the device used. The use of Eviews will produce the coefficient of determination pseudo-R^2. The value of R^2 has a range of values between zero to one ($0 < R^2 < 1$). The closer to the value of one then almost all independent variables can explain the dependent variable and the model can be said the better.

3. Different (t/Z) Test
   An independent Z test basically compares the mean of two groups that are not related to each other for the purpose of whether the two groups have the same average or not and have a large sample size and with the same sample as the above logit model. And dummy regression test to see the difference with positive coefficient value.

3. Results and Discussion

Multicolinearity Test

Multicollinearity test aims to test whether in the model we have created found the correlation between independent variables. A good model is a model that does not occur correlation between independent variables.

Table 2. Multicolinearity Test Results

	SZ	LVRG	GRW	ROA	EQR	INST	MNJR	GVMT	MULTPL
LOG_TA	1.000000	0.268836	-0.028325	0.212792	-0.439190	-0.263675	-0.197203	0.332745	-0.143720
LVRG	0.268836	1.000000	0.001347	-0.046490	0.119732	-0.052415	-0.154830	0.125006	-0.144554
GRW	-0.028325	0.001347	1.000000	0.047092	-0.017134	0.019410	0.052460	-0.028249	0.058299
ROA	0.212792	-0.046490	0.047092	1.000000	0.037521	-0.027279	-0.066941	0.014374	-0.101541
EQR	-0.439190	0.119732	-0.017134	0.037521	1.000000	0.085534	0.089615	-0.165020	0.088155
INST	-0.263675	-0.052415	0.019410	-0.027279	0.085534	1.000000	-0.025049	-0.543412	0.139193
MNJR	-0.197203	-0.154830	0.052460	-0.066941	0.089615	-0.025049	1.000000	-0.110274	0.707269
GVMT	0.332745	0.125006	-0.028249	0.014374	-0.165020	-0.543412	-0.110274	1.000000	0.096022
MULTPL	-0.143720	-0.144554	0.058299	-0.101541	0.088155	0.139193	0.707269	0.096022	1.000000

Thus, in this research data does not occur multicollinearity problem. The results of company performance data and institutional, managerial, government and multiple ownership influence the decision to pay or not to pay dividend initiation.

Likehood Ratio Test

Table 3. Test Results Model 5
MacFadden and LR statistic

Mc Fadden R-Squared	0.178
Prob (LR statistic)	0.00000

Source: Data processed

This test is conducted to find out whether independent variables together significantly influence the dependent variable or at least there is one independent variable that has a significant effect on the dependent variable. This test is similar to the F test in multiple linear regression analysis. The value of this test can be seen on LR $\chi 2$ or when using p-value can be seen on the item Prob (LR statistic). For simplicity, we can see directly by using p-value, where the value of Prob (LR statistic) shows the number of 0.000. This value is smaller than the level of significance test of 0.05 so that we can reject the null hypothesis that states that there are no independent variables that significantly affect the dependent variable. Thus, with a confidence level of 95 percent can be concluded that at least one independent variable has a significant effect on the dependent variable.

McFadden R-Square

Is the likelihood comparison index. This value is equivalent to the value of the multiple regression model, the value is always between 0 and 1. The value of Mc Fadden in this

model is 0.178, meaning that only 17.8% of the variations that occur in the ID can be explained by the variables in the model, while the remainder is explained by other variables outside the model.

Partial Test

Table 4. Model 5 Test Results

Variable	Coefficient	Z Statistics	Prob
Constant	2.484	1.249	0.212
SIZE	-0.128	-1.244	0.214
LVRG	0.220	0.305	0.761
GRW	0.111	-2.036	0.042**
ROA	16.487	4.976	0.000***
EQR	-1.269	-1.737	0.082*
INST	-0.233	-0.236	0.814
MNJR	-0.250	-0.310	0.689
GVRMT	2.296	1.865	0.062*
MULT	0.278	0.434	0.664

Source: Data processed
*Note: *** if = 0.00; ** if =0 0.05; * if = 0.05 0.10*

This test is conducted to determine the influence of each independent variable to independent variable partially. This test is similar to t test on multiple linear regression analysis. However, the statistical value t does not apply in the logit model because of the probability that is between the values 0 and 1. Instead, statistical Z is used or when using p-value can be seen on the item Prob / significance. For variable SZ Prob value is 0.214. This value is greater than the value of significance test of 0.05 so as to fail to reject H0 which states that the variable SZ has no significant effect on the variable ID. In other words, at 95% confidence level it can be concluded that SZ variable has no significant effect to ID variable. Similarly, the LVRG, EQR, INST, MNJR and MULT variables have a probability value of 0.761 each; 0.082;

0.814; 0.680 and 0.664. The six variables have significance value greater than test significance value of 0.05 so it can be concluded at 95% confidence level LVRG, EQR, INST, MNJR and MULTPL variables have no significant effect on ID variable. But for EQR variable with value of 0,082 will have significant effect if we use test significance value equal to 0.10 or level of confidence 90%.

Meanwhile, for GRW variable has Prob value of 0.042, this value is smaller than the value of significance test of 0.05 so that H0 which states that the GRW variable has no significant effect on the ID variable can be rejected. So with 95 percent confidence level can be concluded that the GRW variable has a significant effect on the variable ID. Similarly, for the ROA variable that has a Prob value of 0.000 is much smaller than the significance of the test value of 0.05, so we can reject H0 and conclude that the ROA variable significantly influence the variable ID. GVRMT variable that has Prob value equal to 0.062 which is smaller than test significance value of 0.10, so we can reject H0 and conclude that GVRMT variable has significant effect to variable ID

Discussion
The results of the above table analysis if expressed in terms of equations are as follows:

Log Odd Ratio =
2.484 + -0.128SZ +0.111GRW+ 0.22 LVRG +16.487 ROA+-1.269 EqR
1.249 -1.244 0.305 -2.036 4.976 -1.737
+-0.233 DINST + DMNJR + 2.296DGVMT+ 0.278 DMULT …..4.5
-0.236 -0310 1.865 0.434

The marginal effect value of the coefficient of each variable for model 5 can be seen in Table 5 below:

Table 5. Marginal Effect Model 5

Variable	Coefficient	Marginal Effect
SZ	-0.128	-0.024
GRW	0.110	-0.021
LVRG	0.220	0.042
ROA	16.487	3.122
EQR	-1.269	-0.240
INST	-0.233	-0.044
MNJR	-0.250	-0.047
GVRMT	2.296	0.435
MULT	0.278	0.053

Source: Data processed

For Size variable with marginal effect value of -0.024 the larger the size of the company, the less chance of dividend initiation. In other words, every 1 unit increase in size will decrease the chance of dividend initiation by 2.4%.

For Growth variable with marginal effect value equal to -0,021 the higher the company growth rate, the less chance of conducting dividend initiation. In other words, every increase of growth (growth of company) 1 unit will decrease the chance of dividend initiation equal to 2,1%.

Leverage variable with marginal effect of 0.042, the greater the leverage owned by the company, will increase the chances of the company to initiate dividends by 0.042 times compared to companies that have less leverage. In other words, every increase of 1 leverage unit will increase the chance of dividend initiation by 4.2%.

For ROA variable with value odd ratio 3,122 in this model return on assets (ROA) is found as variable which most significant influence variable ID. The greater the value of ROA, the greater the chance of dividend initiation by 312.2%. In other words, every 1 unit increase on ROA will increase the chance of dividend initiation by 312.2%.

Variable Equity Ratio with marginal effect is -0,240, equity ratio affects inversely to the initiation of dividend. In other words, the greater the value of the equity ratio, the less likely it is to initiate dividend by 24%. In other words, any increase in the equity ratio of 1 unit will decrease the chance of dividend initiation by 24%.

The institutional ownership variable with a marginal effect of -0.044, although statistically insignificant, the institutional ownership variable affects inversely with the dividend initiation decision. Given the institutional ownership within a company, it will minimize the opportunity for dividend initiation within the company by 4.4% compared to

companies that do not have institutional ownership. Or in other words, every 1-unit increase in institutional ownership will decrease the chance of dividend initiation by 4.4%.

Managerial ownership variable with a marginal effect of -0.047 is not statistically significant, managerial ownership variables barely affect dividend initiation decisions. Given the managerial ownership within a company, it will slightly lessen the probability of dividend initiation within the company by 4.7% compared to those without managerial ownership, in other words a 1 unit increase in managerial ownership will decrease the chance of dividend initiation by 4.7%.

For Government variable with a marginal effect of 0.435 is statistically significant, government ownership variable positively affects dividend initiation decisions. Given the ownership of government within a company, it will increase the chances of dividend initiation within the company by 43.5% compared to companies that do not have government ownership. In other words every increase of 1 unit of government ownership will increase the chance of dividend initiation by 43.5%.

Multiple variable with a marginal effect of 0.053, although not statistically significant, multiple ownership variable affects inversely with dividend initiation decisions. With multiple ownership within a company, it will increase the chances of dividend initiation within the company by 5.3% compared to companies that do not have multiple ownership. In other words each increase of 1 unit in multiple ownership will increase the chance of dividend initiation by 5.3%.

Using Z_{count}, with formulation and method as follows:

Companies that initiate dividends

- $\bar{x}_1 = \mu_1 = 0.39021$
- $\sigma_1^2 = (1.31884)^2 = 1.73933$
- $n_1 = 159$

Companies that do not initiate dividends

$\bar{x}_2 = \mu_2 = 0.15297$

$\sigma_2^2 = (0.91037)^2 = 0.82878$

$n_2 = 104$

$D_0 = 0$

- $Z\ hitung = \frac{(\bar{x}_1 - \bar{x}_2) - D_0}{\sqrt{\left[\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}\right]}}$
- $= \frac{(0.39021 - 0.15297) - 0}{\sqrt{\left[\frac{1.73933}{159} + \frac{0.82878}{104}\right]}}$
-

$$= \frac{0.23724}{\sqrt{[0.01094 + 0.00797]}} = \frac{0.23724}{0.0545} = 4.35$$

$Z_{count} = 4.35$

With a degree of confidence 95% or α = 5% = 0.05, then from the statistical table we get the value $Z_{0.05}$ = 1.65.

Since Z_{count} = 4.35 > $Z_{0.05}$ = 1.65, then reject H_0

With Z_{count} = 4.35 greater than Z_{table} = 1.65, then there are differences of companies who initiate dividends with companies that do not initiate dividends against its returns.

4. Conclusion

1. Using the likehood ratio test, company performance (size, leverage, growth, profitability with ROA proxy and equity ratio) and institutional ownership together influence the company's policy to pay or not pay dividend initiation in all models in model 1 to model

4 in which company performance combined with their respective ownership, while in Model 5, company performance combined together with all ownership structures that include institutional, managerial, government and multiple ownership.

2. Using the Z test which is the test of each variable get the results within the model 1 to 5 variables that affect the policy of pay or not pay dividend initiation is growth, ROA, equity ratio and government ownership.
3. To see an opportunity to pay dividend initiation using a marginal effect that indicates a chance of dividend initiation will have positive impact / increased dividend initiation opportunities on variables of leverage, ROA, government ownership and multiple ownership. While the negative impact or decreased the opportunities of dividend initiation caused by variables size, growth, equity ratio, institutional ownership and managerial ownership.
4. There is a difference between companies that pay dividend initiation with companies that do not pay dividend initiation to stock returns. And companies paying dividend initiation are better than companies that do not pay dividend initiation.

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Portfolio Formation and It's Performance Evaluation in Indonesian Capital Markets

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Abstract

This research aims to: find out how many n issuers and portfolio forming components are in portfolios in the Indonesian capital market to achieve a minimum level of risk with a certain return; and knowing how Portfolio performance is from the number and components that are formed in the portfolio on the Indonesian capital market and performance evaluation.

The population in this study were all companies listed on the Indonesia Stock Exchange during the observation period (January 2008 - December 2016) totaling 540 issuers from 9 sectors and then 50 issuers selected as samples based on the proportional combination of 336 issuers with active transaction criteria and complete prices, with sampling technique by purposive sampling. The analytical method used begins with the formation of a portfolio with 9 sectors diversification, then the portfolio performance is measured by Jensen's alpha index.

The results of the analysis show that the number of issuers in the portfolio is the most optimal in obtaining the benefits of diversification in the portfolio in Indonesia as many as 12 issuers in one portfolio, with a combination of issuers that provide the smallest risk with a certain level of return and become an Optimal portfolio consisting of a combination of 6 industrial sectors. The result of the formed portfolio performance measurement shows the performance of the portfolio below the market performance or negative value but the systematic risk value is also below the market, the beta value is <1 so it is in accordance with the purpose of its portfolio formation.

Keywords; Diversification, Portfolio Formation, and Portfolio performance

1. Research Background

An investor in the face of risks and uncertainties in choosing and determining his investment shares requires rationality based on 1) maximum returns at a certain level of risk or 2) at a minimum risk level with certain returns. (Markowitz, 1952). To reduce the risk on investment, theoretically, according to Mao (1970) (Poon, Taylor and Ward, 1992), it is done by diversifying shares through the formation of a stock portfolio, although the nature of the stock portfolio does not eliminate risk but is reducing. Thus to minimize risk and maximize the returns, it must be achieved by forming an optimal portfolio by simulating several available stocks to get the minimum risk value for certain returns, to get the value done by certain calculation procedures.

The basic theory of portfolio selection was first coined by Harry M. Markowitz (1952). Portfolio selection discusses the problem of how to allocate funds to bring returns but with the smallest risk. The establishment of a portfolio involves identifying which shares will be selected and what proportion of the funds will be invested in each of these shares. Portfolio selection from many issuers is intended to reduce the risk borne. The first research is to determine how the most ideal number of shares in obtaining optimal diversification benefits is done by Evans and Archer (1968) where it is said in his research that there will be very few benefits of diversification, when the portfolio has reached eight to ten stocks with the same weight, even though randomly diversified. Evans and Archer's opinions above are

supported by the results of Fisher and Lorie (1970) and Jacob (1974).

Elton and Gruber (1977) continued similar research with the above research where the results were also almost the same, namely some of the benefits of diversification in the form of a 51% total risk reduction, with a total portfolio share of 10 shares. Furthermore, when the portfolio amounted to 20 shares, the risk decreased to 56% or experienced a decrease of 5% compared to Portfolios with a number of 10. If the portfolio amounted to 30 he was only able to reduce the risk by 2% when compared to portfolio 20. So the benefits of diversification are almost non-existent in the portfolio with 50 shares. While Bloomfield et al (1977) stated that a portfolio of 20 stocks is the minimum required to obtain the benefits of diversification in equity. While Statman (1987) compares the marginal benefits of diversification to marginal costs and concludes that at least 30 stocks are needed optimally for portfolio diversification, investors can calculate the marginal benefits of diversification by comparing the expected results from a portfolio of 30 stocks, to the expected return of a 500-share portfolio , leverage so that the expected standard deviation is equal to the expected standard deviation of the 30 share portfolio.

Then Campbell et al (2001) in his study found almost identical to the results of Statman's study that the optimal number of shares of around 50 shares, the correlation value of marginal benefits compared to marginal costs decreased, would increase the marginal benefit of diversification.

Another extreme opinion was expressed by Wasik (1995) and the National Association of Investor Corporation (representing 8,000 stock club options), recommending that investors in their portfolio be at least 5 shares (this rule is known as the Rule of Five). From the understanding of the rule of five, if only a portfolio of 2 stocks, then there will be a tendency for both stocks to become losers, while if the portfolio is only three, it will give mediocre results, but with a portfolio of 5 shares the results can be said to be true winners.

Some research and other writings, which explain the size of the recommended minimum stock portfolio, can be explained as follows; 1). loy, Jennings, and Stevenson in (1989) stated that a good minimum number of shares was 8 to 16 shares, 2). M.D. Joenk and Gitman (1990) revealed the amount of the minimum number of shares in the portfolio should be as much as 8 to 20 shares to minimize risk, 3). Francis J.C (1991) and Chenney-Moses (1989) state that the recommended size of the minimum number of shares in the portfolio is 10 to 15 shares. 4). Pittalis-Reward (1990) states that the recommended value of the minimum number of shares in the portfolio is represented at least 12 to 15 shares 5). F.K Relly (1992) states that the number of minimum shares in the portfolio is 12 to 18 shares, 6). while 3 research results in the book written by French Dw (1989), G. Alexander. Share (1990) and Myers Sd-Brailey obtained a stock portfolio recommendation of at least 20 shares (quoted from Percy.s and Newbold, 1993), 7). Tandelilin (1998) states that in the Indonesian capital market the minimum number of shares in the portfolio is 15 shares and in the Philippine capital market the minimum number of shares in the portfolio is 14 shares

Based on the research and the things mentioned above, it can be concluded that portfolios can be diversified in the amount of between 5 to 10 shares, or at least 12 shares to obtain a minimum risk value without reducing the amount of yield. Where the average value of the stock portfolio of retail investors is large enough so that the portfolio size is not a dominant factor. So it is necessary to do an in-depth analysis and understanding of the number of shares in the portfolio including assessing the performance of portfolios formed in the Indonesian capital market.

Based on the above, then it can be formulated in the form of questions as follows:

1. What is the number of issuers and components that form portfolios in portfolios in the Indonesian capital market to achieve a minimum level of risk with a certain return?

2. What is the portfolio performance of the number and components formed in the stock portfolio in the Indonesian capital market?

2. Methodology

Population and Research Sample

The population in this study was the stock price index on the Indonesia Stock Exchange from January 2008 to December 2016. The reason for the selection of 2008 to 2016 in the Indonesia Stock Exchange was because the length of the period (in monthly) research allowed observations of various influences to the next number of samples representing the population issuers on the Indonesia Stock Exchange will be chosen based on representation Gay and Diehl (1992) in Hill Robin (1998) assumes that the more samples were taken, the more representative and the results can be generalized. But the sample size received will depend on the type of research. The opinion expressed by Gay and Diehl (1992) that descriptive research requires a sample of at least 10% of the population. So in the population consisting of 336, this Issuer required a minimum sample of 34 Issuers to meet 10% but to better represent the representation of all issuers in 9 sectors the researchers completed it into 50 samples of issuers or 14.8% of the population.

In accordance with the provisions according to Gay (1976) of 10% if descriptive research can be represented 10 percent of the population (minimum 20% for a very small population) and for research the population represented 30 objects, in this case, the number of issuers that exist, meet the qualifications and transaction criteria active companies in other words companies or issuers with inactive trades and incomplete prices for the period January 2008 to December 2016 were excluded from the sample, and a daily share price of 336 listed companies was obtained. Then the random number method according to Roscoe (1975) was quoted by uma sekaran (2006) the reference for determining the sample is more than 30 and less than 500 is appropriate for most studies that take the use of excel where the machine will randomly select a sample of proportional percentages which proportional percentage distribution. Gay (1976) in Sevilla (1993) says that the minimum size that can be accepted is based on the type of research that is descriptive research = 10 percent of the population, but for a very small population it takes a minimum of 20 percent, according to Arikunto (2006; 112) saying that: if the object is less than one hundred, it is better to take it all so that the research is a population, but if the number of objects is large, 10-15% or more can be taken. The opinion is according to Roscoe in Sugiono (2011; 90)

The following is an operational definition and measurement of variables related to the formation of a portfolio, namely:

Return Portfolio Hope (R_p)

Return expectations of the portfolio can be estimated by calculating the weighted average return of each individual asset in the portfolio, the percentage of portfolio value invested in each individual asset in the portfolio is referred to as the weight of the portfolio symbolized by "W" (Tandelilin 2010: 120). The formula for calculating the expected return from a portfolio:

$$E(R_p) = \sum_{i}^{n} = {}_{1} W_i E(R_i) \qquad (1)$$

In this case:

$E(R_p)$	= Expected Return From portofolio	$E(R_i)$	= Expected Return From Emiten-i
W_i	= The i-Emiten portfolio weight	n	= Number of Emiten in the portfolio
$\sum W_i$	= Total Portfolio Weight= 1,0		

Varians Return Portfolio (σ_p^2)
The formula for calculating portfolio risk consisting of n-issuers, the measure used is the return variance of the n-issuers in the portfolio mathematically are as follows (Tandeliling, 2010)

$$\sigma_p^2 = \sum_{i=1}^{n} W_1^2 \sigma_1^2 + \sum_{i=1}^{n} \sum_{j=1}^{n} W_1 W_j \sigma_{ij} \quad (2)$$

Where:
σ_p^2 = Varians return portfolio
σ_i^2 = Varians return Emiten i
σ_{ij} = Covarian Between return emiten I and j
W_i = Weight or portion of funds invested in emiten i
$\sum_{i=1}^{n} \sum_{j=1}^{n}$ = double addition sign, means that n^2 will be added simultaneously

(all pairs of i and j that may be paired)
If part of the first equation $\sum_{i=1}^{n} W_1^2 \sigma_1^2$, we assume that the portfolio weight is the same for each issuer, and then the portion of the funds invested (w), will be:

$$\sum_{i=1}^{n} (1/n)^2 \sigma_i^2 = \frac{1}{n} \sum_{i=1}^{n} \sigma_i^2 / n$$

Next, the equation is simplified to:
$\sigma_p^2 = \sum_{i=1}^{n} \sum_{j=1}^{n} W_1 W_j \sigma_{ij}$

Portfolio Variation Coefficient (CV_p)
This ratio is used to measure risk per unit relative to the level of portfolio return expectations (Tandelilin, 2010):

$$CV_p = \frac{\sigma_p}{E(R_p)} \quad (3)$$

Where:
CV_p = Portofolio Covarians
σ_p = Portofolio Standard Varians
$E(R_p)$ = Expected Return Portfolio

The following in table 1 will be explained the Operational Variable definition:

Table 1. Operational definition Research Variables

Variable	Definition	Skala	Measurement
Portfolio Performance with Alpha Jensen (CAPM adoption)	Jensen's Alpha formula is a Jensen index which shows the difference between the level of actual return obtained by a portfolio and the level of expected return if the portfolio is derived from the capital market line	Rasio	$R_p - R_f = \alpha + \beta_p [R_m - R_f] + ei$ $x_p = (\overline{TR}_p - \overline{R}_{BR}) - \beta_p (R_m - \overline{R}_{BR})$ in this case x_p = Jensen's Alpha $\overline{TR}_p$ = *Average portfolio return certain period* $\overline{R}_{BR}$ = *Average return of free assets risk-free periodu* R_m = *Average market return period t Certain* β_p = *Beta portofolio p* $\overline{TR}_p - \overline{R}_{BR}$ = *Average portofolio premium (risk premium portofolio)* $\overline{R}_m - \overline{R}_{BR}$ = *Premium (market risk premium)*

Source: Summary of several references

3. Results and Discussion

Determination of the size of the number of issuers in the establishment of Optimal Portfolios

Comparative determination of stock size in the formation of a portfolio can be taken based on the simulation of risk value and portfolio return on ranking one combination of stock portfolios at each value of stock size in the portfolio where the analysis can be seen in table 2 and figure 1 as follows:

Table 2. Ranking One Value Risk and Return Portfolio at various sizes n in N 50 Establishment of Optimal Portfolios

No	Portfolio Combination Size	Portfolio Risk	Portfolio Return
1	Size n shares = 10 from N = 50 shares	0.0448791	0.0059531
2	Size n shares = 12 from N = 50 shares	**0.0278567**	**0.0055077**
3	Size n shares = 14 from N = 50 shares	0.2772008	0.019227
4	Size n shares = 12 from N = 50 shares	0.2457016	0.0179054
5	Size n shares = 12 from N = 50 shares	0.1981391	0.0164481

Data Resource: Data Analysis

From table 2 and Figure 1 the value of risk and optimal portfolio return on various sizes of issuers in the portfolio with the lowest risk value in each portfolio category, the lowest portfolio risk is found in the size of the issuer as many as 12 shares of 50 existing issuers with a risk value (standard deviation of) 2.78% then for the second optimal portfolio size with a stock size of 10 shares out of 50 shares in the portfolio with a risk value of 4.48%, then the third portfolio that has the smallest risk is n size size n = 18 with the magnitude of portfolio risk 19.81% so that it also proves that the more value n in the portfolio, the smaller the risk faced by the analysis will be different from the research conducted by Tandelilin regarding the optimal portfolio size in Indonesia as many as 14 shares in its portfolio, while the calculations and simulations on various sizes of combinations are theoretical and simula The research carried out differs from that used and applied by mutual funds in Indonesia in the formation of stock portfolios in orchid mutual funds, rose mutual funds and sector commodity rose mutual funds arranged in 10 shares in each portfolio it offers. On the basis of the results of calculating the smallest risk in a portfolio combination with the size of 12 of the 50 selected issuers, then proceed to make a modeling on the optimal portfolio return that is formed and calculates the performance of the existing optimal portfolio compared to its market performance. For Investors with characteristics of investors that Risk Taker will consider taking the number of emiten N = 14 per portfolio because the highest return value compared to the N combination of issuers 10, 12, 16 and 18, with the amount of return 1.9% and the risk faced by the portfolio amount N = 14 is greater than N = 12, it has been in accordance with the theory which states that the highest yield with a certain amount of return. Technically, the higher the expected return, the higher the risk faced by the investor and vice versa. The relationship between risk and return is linear and unidirectional (Husnan; 2015).

Determination of the size of the number of issuers in the establishment of Optimal Portfolios

From the results of research conducted through a series of processes and procedures in the formation of portfolios in accordance with Markowitz portfolio theory including calculation of returns, correlation between issuers, portfolio deviation standards, portfolio variance and covariance, the optimal number of shares available in the portfolio through

technical and fundamental analysis can be concluded as many as 12. Theoretically, almost all investors understand the benefits of diversification in reducing risk, in practice, many investors as transactions in the Indonesian capital market do not apply it. After simulating the various sizes of issuers in one portfolio (with sizes N = 10, N = 12, N = 14, N = 16 and N = 18), out of 50 samples of issuers that are available, the results show that the smallest risk value is in line with the objectives of portfolio formation by (Poon, Taylor and Ward, 1992).

The hypothesis that was formed was in accordance with the results of The Rewards and Pitfalls of High Dividends Stocks research, The Wall Street Journal, August 2, 1990, was 12-15 shares, then F.K. Reilly, Investment Analysis and Portfolio Management, 3rd ed., Chicago, IL, The Dryden Press pad in 1992, 12-18 shares and J. Bamford, J. Blyskal, E. Card, and A. Jacobson, Complete Guide to Managing Your Money, Mount Vernon, NY, the 1989 Union Pad Consumers were 12 or more. in a different view of practical practice regarding the optimal size of the portfolio in Indonesia the establishment of a temporary portfolio based on preference and basis for superior stocks, for example in the focused 10 mutual fund the Mutual Fund will only invest in 10 shares in the same proportion. Second, this Mutual Fund is managed in a semi-active manner, where the choice of shares that can be purchased is determined by the market (the top 16-30 JCI is based on capitalization), but the selection of 10 shares is carried out with certain fundamental criteria.

The results in the above studies are very different from the findings of this study, which turns out that with the number of shares as much as 10 in the portfolio, the risk faced by investors is in the second position with a risk of 4.48%. in portfolios represented by all sectors in the capital market in Indonesia or the sector rotation strategy is not an assumption of the approach in calculating and forming portfolios in previous research.

Another interesting finding of this research is that the criteria for establishing portfolio investment are not based on asset classification that has been determined by investment fund companies on the preference of investment management companies based on the leading sectors, but the optimal portfolio formed is represented on several stock sectors, so that it is in accordance with the theory presented by Mao (1970), who suggests that investors should not only be in one type but diversify in several investment sectors in the hope that it can minimize risks and maximize returns or otherwise maximize returns and minimize risk.

The results of the stock size in the optimal portfolio are 12 obtained from simulating various sizes of stocks, in one portfolio (with sizes N = 10, N = 12, N = 14, N = 16 and N = 18) from 50 samples of issuers there is a risk value and return from 1000 portfolio combinations that are performed on all stock sizes in all portfolios (can be seen in appendix 6), combination restrictions refer to that the number of minimum portfolio size combinations in accordance with the research conducted by Christen Hsu in 2003.

Calculation of portfolio risk and calculation of portfolio return in each N share in the portfolio is carried out, taking a sample of 1% (top 10 portfolios in each portfolio size formed) in each combination of N portfolio shares based on the smallest portfolio risk value criteria that are carried out details and details are shown in Table 5, the portfolio with the smallest risk in each size of the portfolio is taken by 10 Portfolios in each size with the smallest risk of 1000 combinations per each portfolio.

Discussion of Portfolio Performance of the amounts and components formed in the stock portfolio in the Indonesian capital market

The purpose of knowing performance (systematic) and systematic risk of the 10 optimal portfolios that have been formed based on the Jensen "s Alpha measurement model adopted from the Capital Asset Pricing Model (CAPM), Why alpha Jensen' s chosen as a measure

of portfolio performance is formed due to the Sharpe gauge index (Reward to variability = RVAL) and Treynor Gauges (Reward to volatility = RVOL) are actually angular gauges from the Portfolio. The greater the angle or slop of the portfolio, the better the performance of the portfolio (Jogiyanto, 2010: 654), in addition to the angle of portfolio performance, also determined by the intercept the higher the intercept, the higher the portfolio return so that in this study used the approach to calculating portfolio performance with alpha Jensen's method As for the factors that are expected to affect the performance of the 10 optimal Portfolios that have been formed (AJ Portfolio) N optimal portfolio issuers, by using BI interest rates as benchmark benchmarks and index issuers that are generally issuers with large stock capitalization and investor tolerance levels to risk, by taking data from January 2008 to December 2016 (total data series / n = 108 months), for optimal portfolio data is formed, Risk Free Market (RFM) data is obtained from the monthly performance index of Composite Stock Price (IHSG) as Market I and performance monthly LQ 45 as Market II and Risk Free Rate (RFree) from the BI Rate divided by 12 months.

CAPM theory states that in equilibrium (alpha) the value of alpha is zero (α = 0), but to assess and identify whether the mutual fund and the value of the portfolio product is the superiority or inferiority of the portfolio's performance, Jensen's opinion needs to be added the alpha value where Alpha Jensen's criteria as follows: (1) if the positive alpha (α) value shows superior performance (outperform the market), (2) if the negative alpha (α) value shows inferior performance (underperform the market), (3) if the alpha value (α) Zero shows its performance is proportional to market performance (Magdalena, 2012: 3)

From the analysis carried out by using Tools Eviews 9 by way of regressing the portfolio risk premium (TR_p - R_{BR}) as dependent by reducing the return value 10 Portfolios that are formed Risk Free Market 1 reduction in this case represented by the return from monthly performance The JCI was reduced by the Risk Free Rate (BI Rate) as independent, which obtained the results of the analysis output in table 3 as follows;

Table 3. Jensen's Alpha Index and Significance Value 10 Portfolio (A-J) with Market I (IHSG)

Portofolio	Alpha Value (α)	Prob	Beta Value (β)	Information
A	**-0.112941**	**0.0102**	**0.762397**	significant
B	**-0.107348**	**0.0039**	**0.775837**	**significant**
C	**-0.096918**	**0.0250**	**0.797944**	significant
D	**-0.120385**	**0.0024**	**0.745576**	significant
E	**-0.074156**	**0.0743**	**0.832612**	significant
F	**-0.139026**	**0.0021**	**0.709087**	significant
G	**-0.085999**	**0.0461**	**0.815926**	significant
H	**-0.064876**	**0.1041**	**0.850948**	Not significant
I	**-0.161502**	**0.0003**	**0.661322**	significant
J	**-0.109618**	**0.0055**	**0.764951**	significant

Source of Data: Operate data eviews 9

From Table 3 above it is obtained that all optimal Portfolios formed have significant alpha and beta values, only the H portfolio is not significant, also known that the portfolio with the best performance is the optimal portfolio formed E, the best among existing portfolios, because even though the portfolio return performance underperform is minus 7% significant with a 10% confidence level. It is known that the alpha Jensen model is negative

(α), meaning that the performance of the 10 Portfolios formed shows inferior performance (underperform the market), or it can be said that the performance of 10 Portfolios formed under market performance is the return of JCI (Market 1) with a negative value on alpha 0.10 means that Ho is not rejected, which is reflected in the probability value below 0.000 <0.005, because the probability value for all portfolios other than H portfolio is 0.0000, then the coefficient value is significant meaning that the market is efficient so the product 10 Portfolio formed cannot take the advantages of Market1 (IHSG) that exist.

The value of β is a systematic gauge of the issuer relative to market portfolio risk can be seen from the beta value below 1 (β <1) means that the return return 10 Formed portfolio is smaller than the return Market (Return IHSG), This occurs because the basis of the portfolio formation is the issuer with the lowest risk so that although it is quite safe but the return value is below the market return, the β value for the market portfolio is 1, a portfolio that has a beta <1 is said to be less risk than market portfolio risk or has a smaller systematic risk rather than market risk of 0.83 although the portfolio return expectation value is smaller than the market portfolio expectations return.

Then data processing is done using Tools Eviews 9 by regressing the reduction in the return value. 10 Portfolios that are formed Risk-Free Market 2 (LQ45) reduction in this case represented by the return from monthly performance LQ45 is reduced by RiskFree Rate (BI Rate), obtained the results of its analysis output on table 4 as follows:

Table 4. Jensen's Alpha Index and Significance Value 10 Optimal Portfolios (A-J) with Market II (LQ45)

Portofolio	Alpha Value (α)	Prob	Beta Value (β)	Information
A	**-0.148863**	**0.0003**	**0.695202**	significant
B	**-0.156133**	**0.0001**	**0.689604**	**significant**
C	**-0.147909**	**0.0014**	**0.707848**	significant
D	**-0.171047**	**0.0001**	**0.656186**	significant
E	**-0.072808**	**0.0586**	**0.832696**	significant
F	**-0.139027**	**0.0011**	**0.707176**	significant
G	**-0.143822**	**0.0021**	**0.713998**	significant
H	**-0.120638**	**0.0059**	**0.752481**	significant
I	**-0.144621**	**0.0004**	**0.688657**	significant
J	**-0.148863**	**0.0003**	**0.695202**	significant

Source of Data: Secondary Data Operations eviews 9

From table 4 above it is known that all alpha optimal portfolios are significant at 1% and 5% confidence levels. From table 4.42 also known that the portfolio with the best performance is the optimal portfolio E formation is the best among existing portfolios because even though the performance of the portfolio return underperforms is minus 7% significant with a 5% confidence level. known by the Alpha Jensen model model, it is obtained that the alpha value (α) is negative, meaning that the performance of the 10 portfolios that are formed shows inferior performance (underperform the market), it can be said that the performance of 10 Portfolios formed below market performance is Return LQ45 (Market II) is negative at alpha 0, 10 means that Ho is not rejected which is reflected in the probability value below <0.10, because the probability value f or all portfolios is 0.000, then the coefficient value is significant meaning that the Market is efficient so that the product 10 Formed Portfolios cannot take advantage of the existing Market II (LQ45) . While the β value is a systematic

gauge of the issuer relative to market portfolio risk, it can be seen from the beta value that the value is below 1 (β <1) meaning. The value of β for the market portfolio is 1, an emiten that has Beta <1 is said to have a smaller risk than market risk, whereas issuers that have Beta> 1 are said to have the systematic risk that is greater than market risk. If an issuer has a beta equal to the market portfolio beta or equal to 1 by 0.82, it is expected to get more than expected market return expectations

4. Conclusions and Suggestions

This research is based on the formation of optimal portfolios, which are obtained from selected stocks in the 9 existing industrial sectors in the Indonesian securities market, followed by modeling the return portfolio formed and assessing the performance of the portfolio resulting from the formation. Based on the results of the analysis, several conclusions can be made as follows;

1. In the portfolio in the Indonesian capital market to achieve a minimum level of risk with a certain return is as many as 12 issuers in one portfolio where the formation combination consists of 6 industrial sectors, while the conventional issuer's portfolio size is 10 in its portfolio, with a combination of portfolio formers consists of 3 industrial sectors,
2. Optimal Portfolio performance results show that the performance value (α) of 10 optimal portfolios is formed below the market performance where the optimal portfolio return is below the JCI return (Market I) and the LQ45 (Market II) returns, however, at the β value is a systematic gauge of the issuer relative to market portfolio risk, optimal portfolios are formed having a beta <1 meaning that the risk is smaller than the risk of a market portfolio or has a systematic risk less than market risk.

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Relationship of International Trade and Energy Consumption to Economic Growth in Indonesia 1980 – 2014

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Abstract
International trade and energy consumption are factors that can increase economic growth. Indonesia's exports decreased while Indonesian imports increased. In addition, Indonesia's primary energy consumption is increasing every year causing the availability of primary energy to decline. The purpose of the research is to know the relationship between exports and energy consumption to Indonesia's economic growth in the long term and short term. This research use Error Correction Model (ECM) with period 1980 to 2014. The result of this research is that export has a significant positive relationship to economic growth on long-term and short-term. Energy consumption has a significant positive relationship to economic growth on long-term and short-term.

Keywords: Export, Energy Consumption, Error Correction Model (ECM)

1. Introduction

Economic growth indicates the succesful country development. According to Kuznetz, country development is defined as the capacity increasing at the long term periode of a country to provide various economic things (Todaro and Smith, 2004:99). The economic growth improvement will also improve the society's life. However, not all country are able to fulfill their societies' needs that they need an assist from other countries in the form of international trade.

Haberler (in Jhingan, 2014:447) said that international trade provides significant contribution for country development in the future and the good or deviated free trade was the best policy considered from the economic development point of view. In line with the statement, trade can be the main activator and contributor in improving economic growth (Awokuse, 2005; Halicioglu, 2009; Gries dan Redlin, 2012). Haberler's statement was argued by several economic experts, one of them was Myrdal (in Jhingan, 2014:450), the impact of international trade between two countries was the beginning of poverty accumulation and country's stagnation called retardation. International trade is the export and import activities , because both activities are the cores of the international trade (Ningsih, no year).

Indonesia performs international trade as the result of implementing the open trade system. The oil and nature gas and other commodities are exported and imported based the needs of Indonesian society's needs. However the export proportion on Indonesia's GDP tends to increase. The 1998 and 2008 economy crisis phenomena had an impact on Indonesia's trade.

Other factor that can affect the economic growth is consumption (Kuncoro, 2003:26). Economic growth did not inlude energy as variable, but energy is important in the modern economic activity to improve the growth. The country's economic growth is inline with the societies' income that the demand on energy will also increase. Energy consumption takes a role in a country such as country's revenue source, industrial fuel and material, economic activity driver (TD, 2009). The energy consumption may be used as the economic growth stimulus (Chebbi 2009 and Ozturk, 2010).

During 1980 until 2014, the energy consumption in Indonesia tend to increase. In 1980, the energy consumption in Indonesia was 377 kg, and the significant increase on energy consumption was 543 kg in 1990. In 2014, the energy consumption was 883 KG. Energy consumption affects the economic growth, however, the constant increase on the energy consumption has negative impact such as increasing the carbondioxides which can damage the ozon layer and environment. (Kazman and Duman, 2014). Industrial, transportation, and electricity are the sectors that caused global warming as the result of primary energy consumption (World Bank, 2017).

International trade and energy consumption in Indonesia affect the internal economic growth. The economic growth of Indonesia tend to be fluctuative as the result of economic crisi in 1998 and monetary crisis in 2008.

International trade is one of factors in increasing the economic growth, however the export sector that was expected to support the economic growth tend to decrease while the import tend to increase as the result of various phenomena that caused the trade balance deficiency in Indonesia. Meanwhile, the main problem of the energy sector in Indonesia is the efficiency because the energy consumption in Indonesia was considered as wasteful (Sekretariat Jendral Dewan Energi Nasional, 2014: 2).

Various opinions from several theories, empirical studies, and phenomena in Indonesia such as export, energy consumption, and economic growth attract the writer on the relation of export and energy consumption on the economic growth of Indonesia.

2. Method

Research Type

The research approach in this study is the quantitative research. According to Arikunto (2006:12), the quantitative research tend to use numbers, started from data collection, data interpretation, and result interpretation. An opinion from Nasution (2008:4) stated that the quantitative research showed the relation of variables and providing the clear description based on the current situation with the descriptive method.

Research Location and Time

This research was conducted in Indonesia. The research data used were the 1980 until 2014 in the form of annual data.

Data Type and Source

The data source in this research was the secondary data. Secondary data was data that indirectly gave data to the data collector (Sugiyono, 2008:402). The secondary data used in this research is in the form of times series from the World Bank.

Model Specification

The model formation of export and energy consumption relation on economic growth was modified from Ginting's research (2017). Economic growth is a dependent variable while export and energy consumption are independent. The model used was:

$$GDP = f\ (Export, Energy) \qquad (1)$$

The mathemathic model (1) above was changed into the econometrics model, would be:

$$GDP_t = \beta_0 + \beta_1 EXPORT_t + \beta_2\ ENERGY_t + e \qquad (2)$$

Where GDP was Gross Domestic Product (%), EXPORT was the total export (Million US$), ENERGY was primary energy consumption (kg), β_0 was constanta, β_1, β_2, were coefficients, and *e* was error term.

Data Analysis Method

ECM method was one of methods applied in the time series research to see the dynamic motion in short-term, that will also showed the relation among variables in the short-term. The long-term time series can be proved through cointegration regression or the existance of relation in the long-term. However, in the short term, the time series model did not reach the balance as the result of error term (ε_t). There were several stages in performing estimation by using ECM model such as Data Stationarity Test, Integration Degree Test, Cointegration Test, Estimation with ECM Model, and Classical Asumption Test.

The basic model of ECM are:

$$\Delta Y_t = \alpha_0 + \alpha_1 \Delta X_t + \alpha_2 \ EC_t + e_t \quad (3)$$

$$EC_t = (Y_{t-1} - \beta_0 - \beta_1 X_{t-1})$$

The short term ECM model equation is:

$$\Delta GDP_t = \beta_0 + \beta_1 \ EKSPOR_t + \beta_2 \ ENERGI_t + ECT_{t-1} \quad (4)$$

The long term ECM model equation is:

$$\Delta GDP_t = \beta_0 + \beta_1 \ EKSPOR_t + \beta_2 \ ENERGI_t \quad (5)$$

3. Result and DIscussion

Data Analysis Result

1. Stationarity Test
   Stationarity test or test of unit roots was the first step before estimating the time series data model. Stationarity test was used to test the variable stationarity in a research. The stationarity test in this research used Augmented Dicky Fuller (ADF) method by comparing the ADF probability value with the determined α (alpha) in the research.

Table 1. Stationarity Test Result

Indonesia	Prob. GDP	Prob. Export	Prob. Energy
Level	1,0000	0,9959	0,8417
1st	0,0289	0,0000	0,0000
2nd	0,0000	0,0000	0,0000

Table 1 described the data used in this research were generally stationary at the level 1st difference. The energy consumption variable was not stationary at the level stage which could be seen from its probability value of 0,8417 which was higher than the α (5% = 0,05). Then the economic growth variable was not stationary at the level stage because the probability value was 1,0000, which was higher than α value (5%). Besides, the international trade variable was not stationary at the level stage because the probability value was 0,9959 higher than α (5%).

Therefore, the stationarity test was descended to the 1st difference level that the three variables which inclued economic growth, international trade, and energy consumption had probability value lower than 0,05 such as the economic growth probability was 0,0289, the international trade probability was 0,000, and the energy consumption probability was 0,000. This result indicated that the three stationary data were at level 1st difference and the next ECM step could be performed.

2. Cointegration Test

If all data has been stationary, then the next step in ECM estimation is the cointegration test to determine the existence of long term relation among variables. ECT was defined as the residual of simple linear regression equation between Y_t and X_t, that $ect=Y_t - \alpha - \beta Xt$. If there was a cointegration, then there will not be a false regression problem and ECT will put the short term relation of Yt and Xt in balance state by using the residual of the long term relation. Besides, in the cointegration condition, then the regression equation $Y_t = \alpha + \beta X_t + ECT$, the cointegration regression equation and parameter β could be interpreted as long-run multiplier which measured the long term effect permanently from X_t on Y_t.

Cointegration test had two steps, first, by performing dependent and independent variables equation regression with OLS (Ordinary Least Square) estimation method. Second, obtaining long term ECM estimation result from the OLS estimation result. Besides, there would be residual which would be used for the cointegration test.

Table 2. Cointegration Test Result

Variable	ADF	Mac Kinnon Critical value			Proba.s ADF
		1%	5%	10%	
ECT	-4,40	-3,63	-2,95	2,62	0,0013

Table 2 explained residual had ADF statistic value of 4,405777 higher than the ADF critical value of 1%, 5%, and 10%. The ADF probability value from ECT was 0,0013 lower than α (5%) that it could be stated that ECT was stationary. So the ECT variable can be used in the short term ECM estimation and it can be stated that there was a long term relation among variables in the research.

3. Long Term ECM Estimation Result

Table 3. Long Term Error Correction Model Estimation Result

	C	$Export_t$	$Energy_t$
Coefficient	7.650.000.000	2,85	2.600.000.000
t-Statistic	0,308840	16,33	4,266990
Prob.	0,7594x	0,0000*	0,0002*
R-Square	0,986056		
Prob. F Statistic	0,000000		

*) significant on α=5%, ^{x}) insignificant on α=5%,

The result showed the R-Square value was 0,986056 with α (5%) which means the accuration level of this research is 0,986% while the rest 2% were affected by other variable outside the model. Constanta had a long term and insignificant relation on economic growth, which can be seen from the C probability value of 0,7594 higher than α (5%).

International trade had a long term and significant relation on economic growth in Indonesia which was proved by the EXPORT probability value of 0,0000 lower than α (5%). International trade had positive effect on economic growth which was proved by the coefficient value of 2,853191. When the international trade increase US$ 1, it will increase US$ 2,85391 for the economic growth in Indonesia.

Energy consumption had a significant relation with economic growth in Indonesia in the long term which can be seen from the ENERGY probability value of 0,0002 lower than α (5%), energy consumption had a positive effect on economic growth in Indonesia with coefficient value of 2.600.000.000, which means that when there was an increase in energy consumtion of 1 kg equal to oil will increase US$ 2.600.000.000 for economic growth in Indonesia.

The independent variables in this research, the international trade and energy consumption may simultaneously affect the economic growth in Indonesia in the long term which can be seen from the F-Statistic probability value of 0,0000.

4. Short Term Estimation Result

Table 4. Short Term Error Correction Model Estimation

	C	$Export_t$	$Energy_t$	ECT_{t-1}
Coefficient	**10.800.000.000**	**1,070548**	**337.000.000**	-0,37
t-Statistic	2,253292	-2,821331	2,34	-2,13
Prob.	0,0317*	0,0063*	0,0261*	0,04*
R-Square	0,254146			
Prob. F Statistic	0,030129			

*) significant on α=5%

The test result showed R-Square value was only 0,251969 with α (5%) which means the accuration level of this research is 25% while the 75% affect by other variables outside the model. The constanta had a sort term and significant relation on the economic growth in Indonesia which was proved by the EXPORT probability value of 0,0063 lower than α (5%). The international trade had a positive effect on economic growth which was proved by the coefficient value of 1,070548, means when the international trade increase by US$ 1 will increase US$ 1,070548 for the economic growth in Indonesia.

Energy consumption had a significant relation with economic growth in Indonesia in the shirt term which can be seen from the ENERGY probability value of 0,0261 higher than α (5%). Energy consumption had a positive effect on economic growth in Indonesia wth coefficient value of 377.000.000, means when the energy consumption increase by 1kg equal to oil will increase US$ 377.000.000 for the economic growth in Indonesia.

International trade and energy consumption simultaneously affect the economic growth of Indonesia in the short term which can be seen from the F-Statistic probability value of 0,030129. On the short term ECM estimation there was the ECT value which showed the speed of the balance in the long term. The ECT negative value explained that last year's disequillibrium has been corrected at the current year and shows the balance in the long term. That the ECT value (-1) of -0,368044 explained that the speed to re-reach the long term was 37% which is considedred as slow.

Discussion

1. The relation between Export and Economic Growth

The estimation result using Error Correlation Model (ECM) showed that export had positive effect on economic growth of Indonesia in the long term and short term. Indonesian Trade was suitable with the production factor proportion theory, where Indonesia which has a great number of workers will be specialized in producing labor intensive goods to be exported to the needing country to increase Indonesia's foreign exchange or generally called Labor Intensity.

The research resul by using ECM showed that export has significant effect on economic growth of Indonesia. The result was in line withe the research of Ginting (2017) stated that there was a positive effect of export on the economic growth of Indonesia during the Quartal 1 2001 until Quartal 4 2015 in the long and short term that support the ELG hypothesis. Rahmaddi and Ichihashi (2011) who researched the export and economic growth of Indonesia year 1971 until 2008 by using VAR found that there was a relation between export and economic growth in the long and short term that support the long term ELG hypothesis.

This research result was different with Mustika et al (2015) research that export had no significant effect on economic growth of Indonesia because export considered to have small contribution on the economic growth. This was because Indonesia still exported the primary industrial commodities with low productivity value and the commodity produced was from imported capital goods that insignificantly affect the economy. The country economic change and social factors may caused export affect negatively on the economic growth (Gibba and Molnar, 2016).

Based on the research result, export was considered as the economic growth activator in Indonesia because it can increase national income. However government of Indonesia should keep maintaining the export condition, because based on Alhayat and Muslim (2016) projection, the export growth of Indonesia in 2019 will only be 1,56%, while the import growth is projected to be 7,8% in 2019 will trigger Indonesian trade balance deficiency.

2. The relation between Energy Consumption and Economic Growth

The estimation result by using Error Correction Model (ECM) showed that energy consumption had a positive effect on economic growth of Indonesia in the long and short term. The research result was in line with the research of Adyajel (no Year), which stated that there was an effect of energy consumption on economic growth in Indonesia. Belke (2010) who researched the energy consumption on economic growth in 25 OECD countries also found the relation between energy consumption on econimic growth in the long term. The research result was different with Noor and Siddiqi (2010) who said that energy consumption had a negative effect on the GDP of five Asian countries (pakistan, Bangladesh, Nepal, Sri Lanka, and India).

Based on the research result, the energy consumption was one of factors to increase economic growth of Indonesia because it can increase the national income. Khan and Qayyum (2006) said that energy consumption had a vital role in accelerating the country;s economic activities. According to Kabede et al (2010) and Sekretariat Jendral Dewan Energi Nasional (2016:6) energy consumption can be affected by the number of residents, when the number of resident increase, the energy consumption will also increase each year that will affect the economic growth of Indonesia.

4. Conclusion

This research concluded that export had positive significant effect on economic growth of Indonesia in the long and short term. Energy consumption had positive significant effect on economic growth of Indonesia in the long and short term. Some suggestions which can be applied by Indonesian Goverment are:

1. Improving export performance especially strengthen offers, such as strengtehen the commodities competitiveness, developing infrastructures, conducting research and devdeloping potential product to create an innovation for Indonesian exports.
2. Government of Indonesia may try to find a renewable energy and energy conservation that the energy consumption keep contributing for the economic growth.
3.

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Shares and Bonds in International Trade

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Abstract
Almost all countries embrace an open economy by trading systems by individuals or institutions from one country to another under a mutually agreed agreement called international trade. In international trading activities there are bonds and shares that play an important role as a letter of agreement. The purpose of this journal is to estimate the effect of stocks and bonds on international trade in Indonesia. The results show that stocks and bonds have a significant effect on international trade.

Keywords: Volatility, Stock Market, Bonds

1. Pendahuluan

Sistem perekonomian dunia hampir semua menganut system perekonomian terbuka hal ini dibuktikan dengan adanya system perdagangan internasional. Fungsi dasar kegiatan ekonomi adalah bagaimana mengalokasikan berbagai sumber daya dan sumber daya manusia dalam suatu proses industri untuk menghasilkan barang dan jasa di dalam memenuhi kebutuhan masyarakat pada umumnya, sehingga hal ini perlu mendapat perhatian serta konsentrasi antisipasi agar pasokan sumber daya senantiasa memenuhi kuantitas jumlah produksi dan kesesuaian terpenuhinya sumber daya manusia dan modal dalam suatu proses manajemen yang digeneralisasikan ke dalam output produk dan jasa yang dihasilkannya. Dengan demikian kegiatan perekonomian merupakan suatu sistem keterkaitan dan keterikatan antara aspek input tersedianya kontinuitas suplai sumber daya dan sumber daya manusia serta modal yang ditransformasikan dalam proses produksi untuk menghasilkan output produk barang dan jasa.

Secara integratif dapat digambarkan telah terjadi hubungan emosional antara pelaku bisnis, pemerintah dan masyarakat konsumen di dalam menunjang system perekonomian yang mengatur perputaran arus barang dan jasa. Dalam sistem perekonomian modern dijelaskan bahwa kontributor utama yang memberikan jaminan terselenggaranya proses kegiatan ekonomi adalah bergantung dari keterlibatan langsung masyarakat konsumen. Keterkaitan antara pelaku bisnis, Pemerintah dan masyarakat konsumen dalam sistem perekonomian ditujukan untuk membangun terciptanya proses pasar yang antara penjual dan pembeli atas berbagai kebutuhan akan permintaan barang, pelayanan dan sumber daya lainnya serta kontinuitas terjaminnya pasokan barang yang ditawarkan dengan membentuk kontinum arus perputaran pendapatan / penghasilan, pembayaran dan produksi.

2. Metodologi

Metode penelitian yang digunakan adalah Deskriptif Kualitatif, yaitu data yang diperoleh seperti hasil pengamatan, hasil analisis dokumen, catatan lapangan disusun peneliti di lokasi penelitian, tidak dituangkan dalam bentuk angka-angka. Peneliti melakukan analisis data dengan memperkaya informasi dan hasil analisis data berupa pemaparan mengenai situasi yang diteliti yang disajikan dalam bentuk uraian naratif (Hadi, 2002).

Disini peneliti langsung menuju populasi yaitu Negara Indonesia dengan menggunakan

teknik analisis deduksi yakni menarik kesimpulan dimulai dengan pertanyaan umum menuju pertanyaan-pertanyaan khusus dengan penggunaan penalaran da rasio. Dalam konteks ini peneliti berusaha menggali dasar-dasar secara teoritis yang dikemukakan oleh para ahli yang selanjutnya penulis ambil suara kesimpulan. Dan menggunakan random sampling, peneliti secara acak memilih narasumber sebagai informan kunci untuk memberikan informasi akurat yang meliputi aparatur pejabat pemerintah yang memahami obligasi dan saham dalam perdagangan internasional.

3. Hasil dan Pembahasan

Fenomena terbentuknya pasar keuangan (*financial markets*) sebagai sistem keuangan (*financial system*) yang melakukan kegiatan dengan fungsi utamanya adalah terselenggaranya kegiatan menabung dan investasi (*savings and investment*) yang secara atraktif menampung berbagai sumber keuangan secara surplus dari masyarakat yang kelebihan dana (*over liquid*) dan disalurkan kembali kepada masyarakat yang membutuhkan (*under liquid*) baik itu untuk keperluan konsumtif maupun dalam pembentukan modal dan investasi. Adapun beberapa fungsi dari sistem keuangan tersebut meliputi antara lain:

1. *Saving function*. Fungsi tabungan yang dimaksud adalah menjelaskan tentang ter bentuknya sumber dana yang diperloleh dari tabungan masyarakat , begitu pula halnya dengan fungsi obligasi dan saham yang merupakan instrumen pasar uang dan modal sebagai pembiayaan proyek investasi dan pembangunan infrastruktur dan fasilitas lainnya yang diperlukan masyarakat.
2. *Liquidity function.* Fungsi likuiditas yang dimaksud adalah menjelaskan instrumen keuangan sebagai alat yang likuid, karena pada saat kapan pun dapat dicairkan sesuai dengan yang dibutuhkan oleh investor. Sehingga hal ini mendorong para investor untuk cenderung menyimpan dananya dalam berbagai instrumen keuangan dan hanya mencairkannya sesuai dengan urgensi kebutuhannya.
3. *Payment function.* Fungsi pembayaran yang dimaksud adalah sebagai alat pembayaran atas sejumlah ransaksi yang dilakukan antara penjual yang menawarkan produk barang dan jasanya dengan pembeli selaku konsumen yang menikmati produk dan jasa yang diperolehnya.
4. *Policy function.* Fungsi sebagai alat kebijakan, adalah menjelaskan tentang prosedur pengambilan keputusan yang dilakukan pemerintah (government) di dalam merumuskan dan mengimplementasi berbagai kebijakan untuk mengatur dan mengawasi perputaran uang yang beredar di masyarakat sehingga dapat dijadikan strategi di dalam mengukur stabilitas moneter.
5. *Wealth function.* Adalah fungsi kekayaan atas nilai perolehan dari investasi yang dilakukan oleh para investor sebagai sumber pendapatan tetap dan tidak tetap sebagaimana sesuai dengan pilihan investasi yang dilakukannya baik itu hasil dari transaksi pasar uang maupun pasar modal.
6. *Credit function.* Fungsi kredit disini diartikan sebagai alat likuiditas menciptakan hubungan keterkaitan antara investor penyimpan dana yang secara tidak langsung dipergunakan sebagai sumber pembiayaan untuk memfasilitasi kepentingan debitur (individu maupun organisasi) serta alokasi kebutuhannya, baik untuk alat investasi, pembentukan modal kerja serta untuk keperluan konsumtif.
7. *Risk function.* Fungsi sebagai alat untuk menghindari risiko, dimaksudkan bahwa pasar keuangan sebenarnya menawarkan instrumen keuangan berupa asuransi sebagai produk yang memberikan perlindungan (protection) terhadap para pelaku bisnis, masyarakat konsumen dan pemerintah, baik itu perlindungan jaminan pelayanan kesehatan, jaminan hari tua serta perlindungan maksimal atas sejumlah properti

(bangunan dan kendaraan), baik itu disebabkan karena terjadinya kebakaran maupun faktor-faktor lain yang dapat mengurangi nilai investasi.

Dari beberapa fungsi sistem keuangan tersebut tiada lain ditujukan untuk memberikan pelayanan jasa keuangan baik instrumen pasar uang maupun pasar modal sebagai alat investasi di dalam mengatur dan merencanakan sistem keuangan sebagaimana sesuai dengan kepentingan investor baik itu yang dibutuhkan masyarakat, pemerintah maupun kalangan pebisnis. Pasar uang sesuai dengan sifatnya di desain sebagai produk pinjaman jangka pendek (kurang dari setahun) yang dapat diilustrasikan sebagai tempat bertemunya masyarakat secara individual maupun institusional yang memiliki kelebihan dana (unit surplus) dengan kelompok debitur yang membutuhkan dana untuk keperluan jangka pendeknya yang akan dipergunakan sebagai sumber pembiayaan modal kerja dan juga dipakai sebagai alat investasi pemerintah untuk memaksimalkan nilai uang dari hasil pendapatannya serta senantiasa dipergunakan untuk kepentingan efektifitas penyaluran dana serta sebagai transaksi yang bersifat spekulasi dalam pembelian produk pasar saham maupun pasar komoditas.

Dalam aktivitas transaksi instrumen pasar uang dikenal beberapa produk alternatif investasi bagi kepentingan para pemodal (investor) dan para debitur baik individu maupun lembaga untuk memproteksi kerugian yang ditimbulkan atas pergerakan nilai tukar mata uang (*hedging*) yang tujuannya adalah memberikan keseimbangan nilai tingkat suku bunga, nilai tukar spot rate serta forward rate. Keseimbangan tingkat suku bunga tersebut memberikan implikasi tentang bagaimana para investor maupun para debitur untuk mengamankan nilai tukarnya di pasar uang yang direalisasikannya sesuai dengan kondisi suatu negara yang bersangkutan ataupun menyamakannya dengan tingkat suku bunga pinjaman sehingga memberikan alternatif tentang kondisi yang ideal apakah layak untuk berinvestasi atau mengajukan pinjaman yang dilakukan di dalam negeri maupun di luar negeri.

Volatilitas nilai mata uang dapat berpengaruh terhadap instrumen investasi keuangan , baik dalam sistem perekonomian nasional, regional maupun global. Apresiasi nilai tukar rupiah terhadap dolar di dalam perdagangan valas dapat mendorong spekulan untuk memborong dolar sebagaimana hal ini ditunjukkan dengan tren menguatnya rupiah yang dalam minggu2 terakhir ini menembus level tertinggi di posisi Rp.9.638,- dan di pasar spot pada hari yang sama ditutup Rp.9.436,-. Penguatan kurs didukung faktor eksternal sebagaimana hal ini ditunjukkan pelemahan dolar terhadap hampir semua mata uang karena sentimen negatif fundamental perekonomian AS yang mengalami defisit anggaran serta antisipasi dari beberapa bank sentral untuk mengalihkan cadangan devisa dalam bentuk emas dan mata uang lain seperti euro.

Secara internal penguatan rupiah lebih disebabkan membanjirnya investor asing di pasar modal sebagaimana hal ini berdasarkan hasil laporan Bank Indonesia selama kuartal III pemburuan saham oleh investor asing mencapaui US$ 608,7 juta atau senilai 6 triliun rupiah. Sinyal positif penguatan rupiah ini merupakan angin segar bagi para investor pasar modal baik pemula maupun investor senior untuk membuat pundi-pundi investasi baru yang lebih menjanjikan dibandingkan dengan menginvestasikannya secara konvensional di dalam tabungan dan deposito. Fenomena ini merupakan hal biasa dalam berinvestasi karena secara alamiah perubahan investasi tersebut dapat bergeser dari satu investasi ke investasi lain sesuai dengan kebutuhan pasar dan faktor-faktor teknikal analisis investor. Secara garis besar, lahan investasi dibagi menjadi tiga bagian, yaitu investasi keuangan (financial investment) yang terdiri dari pasar uang (money market) dan pasar modal (capital market), pasar komoditas (commodity market) serta investasi pada sektor riil.

Momentum perpindahan investasi tersebut memberikan harapan baru sebagai dampak penguatan rupiah sehingga hot money akan terus terpacu yang dipicu sentimen positif dalam negeri yang secara ekonomi dan politik kondusif menjanjikan keuntungan yang berdampak pada pemulihan struktur investasi keuangan (investment financial structure) di dalam menggerakkan roda pembangunan serta memacu percepatan pertumbuhan perekonomian nasional.

Ada berbagai macam pilihan investasi sebagai peluang mendapatkan keuntungan yang lebih tinggi atas pilihan investasi tertentu dengan meminimalkan risiko serendah mungkin (low risk high return), yang dengan demikian diperlukan pengamatan secara seksama dan kejelian dalam bersikap untuk menentukan arah dan gaya (style) secara maksimal dalam strategi pengambilan keputusan investasi. Sebagaimana kita ketahui nilai investasi dalam sistem keuangan merupakan struktur bagian dari pelayanan jasa keuangan di dalam memproduksi dan mendistribusikan serta menawarkan produk jasa keuangan untuk memenuhi permintaan masyarakat. Peter S. Rose (1997:10) mengemukakan bahwa:

> *"The financial system operates to bring planned savings by business, house hold, and government in to balance with planned real investment by businesses, households and governments. The financial system also makes possible the supplementing of savings with borrowing so that both real investment in capital goods and inventories and financial investment in stocks, bonds and other financial assets can occur at the level the public whises."*

Bentuk pelayanan jasa keuangan tersebut secara garis besar dapat berupa instrumen pasar uang maupun pasar modal sebagai alat investasi di dalam mengatur dan merencanakan sistem keuangan sebagaimana sesuai dengan kepentingan investor baik itu yang dibutuhkan masyarakat, pemerintah maupun kalangan pebisnis.

Pasar modal memiliki peranan penting dalam kegiatan perekonomian suatu negara yang layak dijadikan sebagai indikator keadaan perekonomian suatu Negara karena pasar modal merupakan sumber dana alternatif bagi perusahaan-perusahaan sebagai agen produksi yang secara nasional membentuk Gross Domestic Bruto (GDP) sehingga pesatnya perkembangan pasar modal akan mendorong kemajuan perekonomian suatu negara. Ironisnya perkembangan pasar modal nasional belum seluruhnya dapat menyentuh masyarakat investor lokal atau hanya memberikan kontribusi masih dibawah 10 persen penduduk di Indonesia sehingga pemanfaatannya belum menjadi prioritas utama pilihan investasi apabila dibandingkan negara lainnya di Asia Tenggara seperti di Malaysia dan Singapura yang memiliki kecenderungan akan pengetahuan pasar modal dapat dijadikan sebagai alternatif investasi yang menguntungkan. Investasi jangka panjang lainnya selain saham adalah produk investasi obligasi. Obligasi merupakan kontrak antara pemberi pinjaman dengan yang diberi pinjaman yang diwujudkan dalam bentuk surat obligasi sebagai investasi harta tetap (fixed asset investement) dengan perolehan yield secara tetap pula.

Nilai obligasi senantiasa berubah (variable) sesuai dengan perubahan suku bunga secara umum yang digunakan sebagai indikator suku bunga secara umum yang mengacu pada suku bunga tabungan dan deposito sehingga kondisi ini cenderung terbalik karena jika suku bunga pasar tabungan dan deposito meningkat lebih tinggi secara umum mempengaruhi perubahan suku bunga obligasi. Obligasi merupakan kontrak antara pemberi pinjaman dengan yang diberi pinjaman yang diwujudkan dalam bentuk surat obligasi. Obligasi merupakan investasi harta tetap (fixed asset investment) karena mendapat yield secara tetap pula. Obligasi dogolongkan sebagai investasi tetap karena nilai perolehan dari hasil investasi tersebut suku bunganya telah ditentukan terlebih dahulu. Disamping pendapatan dari yield tetap tersebut diperoleh dari bunga (coupon yield) dan juga pemegang olbigasi

dapat memperoleh capital gain, yaitu apabila dilakukan penjualan sebelum jatuh tempo.

Nilai obligasi senantiasa berubah (variable) sesuai dengan perubahan suku bunga secara umum yang digunakan sebagai indicator sku bunga secara umum (mengacu pada sku bunga tabungan dan deposito) sehingga kondisi ini cenderung terbalik karena jika suku bunga pasar (tabungan dan deposito) meningkat lebih tinggi secara umum mempengaruhi perubahan suku bunga obligasi. Kinerja pasar obligasi pemerintah saat ini menunjukkan ke arah perbaikan, hal ini dapat dilihat dari penurunan yield curve Surat Utang Negara (SUN) di pasar sekunder nencerminkan kepercayaan pasar terhadap kondisi ekonomi nasional semakin meningkat. Penurunan *spread* antara bunga obligasi pemerintah dengan Sertifikat Bank Indonesia (SBI) dan *US Treasury* mencerminkan premium risk yang menurun sehingga mendorong investor asing membelanjakan dollar nya ke produk SUN (surat Utang Negara) sebagai alternatif investasi yang cukup menjanjikan seperti tercermin dalam pencapaian net buying hingga april 2007 mencapai 15,3 triliun dan hal ini akan memberikan sentimen positif pula hingga pada kwartal ke empat total dana asing yang dibelanjakan kepada SUN mencapai 141,317 triliun rupiah atau mencapai 97,76 persen dari target 144,5 triliun (*Tempo, 15 November 2009*). Kekhawatiran akan pemenuhan kebutuhan pembiayaan Anggaran Pendapatan dan Belanja Negara (APBN) tidak menjadi ganjalan karena strategi front loading yang terukur dengan jadual yang teratur dan diversifikasi instrumen pembiayaan menjadikan anggaran cukup aman baik untuk pembiayaan defisit maupun debt financing dengan tetap mengutamakan bargaining position atas tawaran investor untuk mendapatkan yield tinggi serta disamping itu pula senantiasa tetap menjaga likuiditasnya dengan tidak memberikan liquidity premium.

Sinyal volatilitas secara dinamis akan terus tetap terjaga sesuai dengan fundamental perekonomian Indonesia sebagaimana hal ini terjadi pula pada mata uang asing lainnya dari dampak global sehingga dengan demikian Bank sentral tidak akan mengubah posisi kebijakan dalam mengelola aliran dana asing yang masuk ke pasar dalam negeri dan akan diserahkan sepenuhnya pada mekanisme pasar. Investasi jangka panjang ini diharapkan akan terus meningkat seiring dengan tetap terjaganya inflasi di akhir tahun yang diprediksikan mencapai pada kisaran antara 3,5 - 3,9 persen.

Meningkatnya nilai investasi saham dan obligasi merupakan sinyal positif membaiknya perekonomian nasional dan hal ini akan secara cepat pula memberikan sinyal negatif bagi perekonomian nasional apabila Pemerintah Indonesia tidak secara sungguh-sungguh menjamin kepercayaan investor dan harus tetap menjaga situasi politik dalam negeri yang kondusif sehingga dapat memberikan rasa aman bagi investor, seperti terbangunnya kehidupan pemerintahan yang demokratis, jujur, akuntabel dan transparan di dalam menyikapi situasi dan kondisi ekonomi dan politik dalam negeri yang berkembang saat ini sebagai perwujudan penyelenggaraan pemerintah yang good governance yang menstimulan iklim investasi dan bisnis.

Faktor lainnya yang perlu dipertimbangkan adalah bagaimana pemerintah Indonesia secara arif menyikapi situasi dan kondisi perkembangan ekonomi internasional seperti ketidakpastian harga minyak dan komoditas primer, ketidakseimbangan global dan volatilitas pasar keuangan, ketidakstabilan moneter internasional, kesenjangan global serta memperhatikan peningkatan persaingan sebagai sasaran investasi diantara negara-negara di Asia yang memberikan kontribusi penting bagi perumusan kebijakan investasi terutama mensiasati terjadinya guncangan peralihan arus modal jangka pendek (*capital flight*) ke luar negeri. Dengan demikian stabilitas ekonomi makro merupakan prasyarat keberlanjutan ekonomi (*suistanability growth*) yang berpengaruh terhadap sasaran-sasaran pembangunan nasional yang memaksa pemerintah harus tetap konsisten menjaga laju inflasi dan stabilitas nilai tukar sehingga gairah berinvestasi dapat dijadikan komoditas

perdagangan global yang menghasilkan devisa guna memenuhi neraca pembayaran internasional yang memiliki kecenderungan meningkat setiap tahunnya seiring dengan meningkatnya pula arus kebutuhan barang modal dan investasi industri dalam negeri.

4. Kesimpulan

Pasar modal memiliki peranan penting dalam kegiatan perekonomian suatu negara yang layak dijadikan sebagai indikator keadaan perekonomian suatu Negara karena pasar modal merupakan sumber dana alternatif bagi perusahaan-perusahaan sebagai agen produksi yang secara nasional membentuk *Gross Domestic Bruto* (GDP) sehingga pesatnya perkembangan pasar modal akan mendorong kemajuan perekonomian suatu negara.

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Empowering Indonesia and Mauritius Investment Based on LQshift LQshare Analysis and Policy on Tax Haven Country

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Abstract

BKPM or the Investment Coordinating Board is a government-owned entity of the Republic of Indonesia at the ministerial level in charge of encouraging direct investment both domestically and abroad. Based on BKPM's investment realization report, Mauritius occupies the top 10 positions as the largest FDI country within period of 2015-2017. Mauritius itself known as a tax haven country that used as an investment destination by developed and developing countries. Indonesia and Mauritius have no bilateral relations yet both on economic, politic and social & culture. Cooperation between these two countries is done through third party countries such as Dubai and Singapore. Purpose of this study is to examine potential possibility to level up investment within two countries from third party managed cooperation into bilateral cooperation. Data used in this research are time series data from 1990 – 2017. Variables used in this research are FDI level, following indicator economic including GDP, interest rate, exchange rate, and trade balance. The LQ analysis is commonly used as a general method of analysing interregional comparative advantage. This evaluation method aims to identify what sectors are an advantage in a certain period. From the results of this study, obtained the potential to be the advantage of both countries and how the Indonesian government maintain a conducive economic climate from the negative effects of tax haven country adopted by Mauritius.

Keywords: LQshift LQshare; FDI; Institutiona;, Tax Haven

1. Introduction

Investment is one of the economic activities found in various economic activities both economic and micro-macro life. Investment is the activity of buying capital goods or cash expenditures to increase real assets, adding production equipment to increase the ability to produce goods and also providing services, as well as adding financial assets to obtain greater income in the future (Haming & Basalamah, 2003:3; Sukirno, 2003:5; Samuelson, 2004:198). Investment activities in the form of placement of cash, funds or other assets held for a certain period of time to obtain capital gains in the future which also correlate with the long-term capital association to obtain profits from capital is also another understanding of investment (Ahmad, 2004:3; Suratman, 2001:6; Sunariyah, 2003:4).

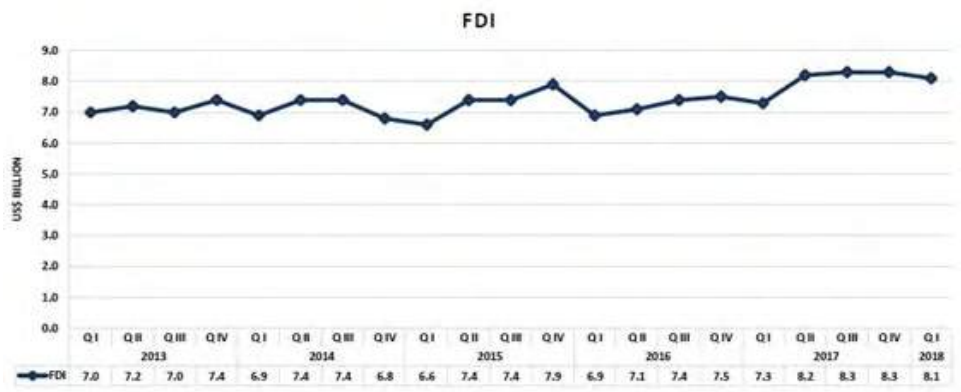
International trade itself is part of foreign investment carried out by a country in another country. Investments made by a country are known as Foreign Direct Investment. Foreign Direct Investment (FDI) is an integral investment that has an open and useful and effective nature in the international economic system. FDI is also the main catalyst for development in a country because FDI will increase state revenues which will directly have a positive impact on development in a country. However, the benefits of FDI do not increase automatically because of their nature in the form of units and production installations that have deadlines to operate and produce goods and services that will provide additional income for a country. The application of products and applications of FDI itself is applied evenly in regions that

have the potential to support production within a country. Its application is also in various sectors and diverse social fields. National policies and forms of international investment architecture are the main factors that can attract FDI to most developing countries that want to get the full benefits of FDI. The main challenge faced by the host country of this investment is the need to establish an institutional and policy environment that is transparent, covers various aspects, and is effective in its implementation (OECD, 2016).

The Investment Coordinating Board is a government-owned entity of the Republic of Indonesia, which is a ministry-level institution and reports directly to the president of the Republic of Indonesia with the task of encouraging direct investment, both from within and outside the country through the creation of a conducive investment climate (http://www.bkpm.go.id/id/about-bkpm/profil-lembaga). BKPM routinely issues reports related to investment in Indonesia in accordance with its main duties and functions, namely carrying out coordination of policies and services in the field of investment based on statutory provisions. This report is used by various parties as a basis for consideration for various investment-related interests. The graph of the realization of quarterly investment and project realization from the first quarter of 2015 to the first quarter of 2018 is indicated by the following graph:

Figure 1. Realization of Quarterly Investment and Project Realization

From the graph above, it is known that investment realization in the first quarter of 2018 was Rp. 185.3 T increased 1.7% from the fourth quarter of 2017 amounting to Rp. 179.6 T. Where the realization of the first quarter 2018 alone increased by 11.8% from the realization of the first quarter of 2017 which amounted to Rp. 165.8 T. The growth of FDI investment realization from 2013 to March 2018 on a quarterly basis shows an increasing trend according to the following graph:



source: BKPM, data processed

Figure 2. The Growth of FDI Investment Realization

From the BKPM report related to the realization of investment in the first quarter of 2018 also mentioned the country of origin of investment in Foreign Direct Investment to Indonesia as shown in the following figure:

NO	COUNTRY OF ORIGIN	INVESTMENT (US$ Million)	PROJECT
1	Singapore	2,648.2	1,331
2	Japan	1,361.0	375
3	South Korea	940.0	517
4	China	676.2	529
5	Hong Kong	516.1	336
6	British Virgin Islands	378.0	280
7	United States of America	372.4	83
8	Malaysia	274.6	312
9	Netherlands	170.4	140
10	Australia	135.3	176
11	Switzerland	105.8	36
12	Thailand	92.2	47
13	Mauritius	87.7	14
14	Austria	55.0	6
15	Cayman Islands	52.1	19
16	Luxembourg	41.2	22
17	Taiwan	39.0	84
18	United Kingdom	37.0	96
19	Germany	25.5	45
20	India	15.7	84
21	Seychelles	14.7	34
22	Canada	8.9	20
23	France	8.4	96
24	Norway	7.9	3
25	Brazil	7.4	5
26	United Arab Emirates	6.4	18
27	Sweden	5.8	15
28	Belgium	5.7	21
29	Spain	5.1	17
30	Italy	4.2	46
31	The Philippines	4.2	6
32	Yemen	3.2	9
33	Jordan	3.0	5
34	Saudi Arabia	2.8	16
35	Uruguay	2.2	3
36	Turkey	1.8	15
37	Finland	1.5	3
38	Cyprus	1.2	4
39	Mali	1.1	3
40	West Samoa	1.1	7
41	Pakistan	1.0	4
42	Hungary	0.9	2
43	South Africa	0.7	3
44	Syria	0.7	5
45	Romania	0.6	1
46	Ethiopia	0.6	1
47	Egypt	0.5	1
48	New Zealand	0.5	8
49	Russia	0.5	11
50	Czech	0.4	4
51	Bulgaria	0.3	4
52	Guernsey	0.3	1
53	Ireland	0.3	7
54	Bangladesh	0.3	2
55	Iran	0.3	7
56	Malta	0.3	2
57	Kuwait	0.3	3
58	Ukraine	0.2	2
59	Cook Islands	0.3	3
60	Latvia	0.1	1
61	Anguilla	0.1	1
62	Argentina	0.1	3
63	Tunisia	0.1	2
64	Bahrain	0.1	1
65	Kazakhstan	0.1	3
66	Channel Islands	0.1	2
67	Chili	0.1	2
68	Netherlands Antilles	0.1	1
69	Morocco	0.0	2
70	Nigeria	0.0	4
71	Denmark	0.0	8
72	Columbia	0.0	1
73	Portugal	0.0	1
74	Niger	0.0	1
75	Mexico	0.0	2
76	Lebanon	0.0	2
77	Slovakia	0.0	1
78	Sudan	0.0	1
79	Djibouti	-	1
80	Suriname	-	1
81	Slovenia	-	1
82	Lithuania	-	1
83	Estonia	-	1
84	Puerto Rico	-	1
85	Afghanistan	-	6
86	Iraq	-	1
87	Namibia	-	1
88	Bermuda	-	1
89	Algiers	-	1
90	Vietnam	-	1
91	Croatia	-	1
92	Brunei Darussalam	-	1
93	Marshall Island	-	2
94	British Columbia	-	1
	TOTAL	6,130.83	5,010

source: BKPM, data processed

Figure 3. The Country of Origin of Investment In FDI to Indonesia

Singapore, Japan and South Korea are still ranked as the top 3 countries of origin of Indonesia's largest FDI investment. Followed later by China, Hong Kong, British Virgin Island, United States. The Netherlands as a European country that is consistently in the top 10 countries originating from Indonesian FDI investment. Australia itself is quite active in FDI investment in Indonesia, occupying the number 10 position. Countries ranked 1-8 are countries that have profit factors such as proximity (Singapore, Malaysia, Australia) and historical proximity (Japan, the Netherlands) and economic cooperation the massive (China, Hong Kong, United States). What interests me is the existence of several countries known as the Tax Haven Country such as Mauritius, British Virgin Islands, Seychelles, or Cayman Islands. Because these countries are countries that have the issue as Tax Heaven Country where this is contrary to Bank Indonesia Regulation No. 11/28 / PBI / 2009 concerning the Application of Anti-Money Laundering and Prevention of Terrorism Funding Programs for Commercial Banks, so that whether this institution is economically justified, and how the bilateral cooperation between the two countries (Indonesia - Mauritius) is realized as real cooperation

2. Introduction

LQ analysis is a formula used to determine the extent of the level of specialization / concentration of regional sectors (Bendavid-Val, 1991:73; Shaver, 1989:268). This analysis can be used as an illustration of the attractiveness of the region by paying attention to the existing infrastructure and supporting activities. This method can be a preliminary analysis of the area then continued with other analyzes, (Amien, 1996:92, 113:114). The LQ coefficient can be explained as follows:

$$LQ = \left[\frac{(Q_{ir}/Q_r)}{(Q_{in}/Q_n)} \right] \qquad (1)$$

Where:
Q_{ir} = Economic indicators sector area i
Q_r = Economic indicators all area
Q_{in} = Economic indicators sector area i greater reference area
Q_n = Economic indicators all area greater reference area
LQ > 1 sector with specialization/concentration higher than compared area
LQ < 1 sector with specialization/concentration lower than compared area
LQ = 1 sector with specialization/concentration same as compared area

Shift Share Analysis Tool is used to determine the regional economic performance reflected in the form of regional growth, the relative growth rate of regional sectors, and the competitiveness of regional sectors. (Bendavid-Val, 1991: 67, Amien 1996: 106). Shift-Share analysis starts with the assumption that the growth of the observation area sector is the same as the reference area (Isard, 1960; Hustede, 1984; Blair, 1991: 190).

This analysis divides changes or growth in local economic performance in three components: i) Component of growth (growth component): reflects economic growth in the area of observation, with the assumption of growth equal to the growth rate of the reference area during that period. ii) Mix-industry or proportional shift component: measures the difference in growth of economic sectors in the observation area compared to the reference area. iii) Components of shifting or regional market share growth (differential shift or Regional share): to measure the growth of the observation area sector compared to the same sector in the reference area.

$$PEW = \left[\frac{Y^*}{Y} - 1\right] + \left[\frac{Y'_k}{Y_k} - \frac{Y^*}{Y}\right] + \left[\frac{y'_k}{y_k} - \frac{Y'_k}{Y_k}\right] \quad (2)$$

Where:
Y^* = economic indicators greater reference area in end of research year
Y = economic indicators greater reference area in early of research year
Y'_k = economic indicators greater reference area of sector k in end of research year
Y_k = economic indicators greater reference area of sector k in early of research year
y'_k = economic indicators area of sector k in end of research year
y_k = economic indicators area of sector k in early of research year
PEW = area's economic growth

LQShare and LQShift analysis was developed from the LQ analysis model. This analysis is dynamic because it takes into account the development of the sector in two time points. In addition, the analysis of LQShare and LQShift can identify specialization/concentration and regional sector development because it is based on a very similar calculation concept, so that the results of the calculations support each other in determining the relative progress or decline of the regional sector. Based on the explanation, it is expected that the results can be used to apply the sector development priority scale.

To identify the level of specialization/concentration of the regional sector in two time points, equation 2 is changed in the formula for the median average value ratio, namely:

$$LQshare = \left[\frac{\frac{1}{2}(Q_{Rkn}+Q_{Rko}) \Big/ \frac{1}{2}(Q_{Rn}+Q_{Ro})}{\frac{1}{2}(Q_{Nkn}+Q_{Nko}) \Big/ \frac{1}{2}(Q_{Nn}+Q_{No})}\right] \quad (3)$$

And this equation simplified into following equation:

$$LQshare = \left[\frac{(Q_{Rkn}+Q_{Rko})/(Q_{Rn}+Q_{Ro})}{(Q_{Nkn}+Q_{Nko})/(Q_{Nn}+Q_{No})}\right] \quad \textbf{(4)}$$

Where:
Q_{Rko} = economic indicators area sector k in early period
Q_{Rkn} = economic indicators area sector k in end of period
Q_{Ro} = economic indicators total area sector in early period
Q_{Rn} = economic indicators total area sector in end of period
Q_{Nko} = economic indicators sector k reference area in early period
Q_{Nkn} = economic indicators sector k reference area in end of period
Q_{No} = economic indicators total sector reference area in early period
Q_{Nn} = economic indicators total sector reference area in end of period

$\left[\frac{(Q_{Rkn}+Q_{Rko})}{(Q_{Rn}/Q_{Ro})}\right]$ = share component observed area sector k

$\left[\frac{(Q_{Nkn}+Q_{Nko})}{(Q_{Nn}/Q_{No})}\right]$ = share component reference area sector k

LQShare > 1, sector with specialization/concentration higher than reference area
LQShare < 1, sector with specialization/concentration lower than reference area
LQShare = 1, sector with specialization/concentration same as reference area

To get the regional development / competitiveness formula in two time points (period), equation 2 is changed to the ratio of change values, namely:

$$LQshift = \left[\frac{(Q_{Rkn}-Q_{Rko})/(Q_{Rn}-Q_{Ro})}{(Q_{Nkn}-Q_{Nko})/(Q_{Nn}-Q_{No})}\right] \quad \textbf{(5)}$$

$\left[\frac{(Q_{Rkn}-Q_{Rko})}{(Q_{Rn}-Q_{Ro})}\right]$ = shift component observed area sector k

$\left[\frac{(Q_{Nkn}-Q_{Nko})}{(Q_{Nn}-Q_{No})}\right]$ = shift component reference area sector k

LQShift > 1, sector with growth/competitiveness higher than reference area
LQShift < 1, sector with growth/competitiveness lower than reference area
LQShift = 1, sector with growth/competitiveness same as reference area

Determination of sector relative positions based on the following criteria:

- LQShare≥1 dan LQShift≥1 = Progressive sector. It shows degree of specialization/ concentration and the rate of change/competitiveness of the sector is high, then the sector itself very instrumental.
- LQShare<1dan LQShift ≥1 = Developing sector. It shows that the level of specialization/ concentration of the sector is still low, but the rate of change is relatively high, so that the sector has good prospects to play a role.

- LQShare≥1danLQShift <1 = Slow sector. It shows that the specialization/concentration of the sector is high but with a rate of change / low competitiveness. The sector is competed by the same sector from other regions.
- LQShare<1danLQShift <1 = Backward sector. Demonstrating that sector specialization / concentration and the rate of change / competitiveness of the sector are low, the sector has unfavorable prospects to play a role.

3. Findings and Argument

To determine the effect of specialization / concentration in the regional sector on income disparity between regions, the following criteria can be used: i) The sector with low WIk (sector k Williamson Index) does not affect the gap. ii) Sectors with low WIK and RK (correlation coefficient between GRDP and sector K forming GDP as regional concentration index) are high, constituting sectors concentrated in developed regions. The gap will increase if this sector develops. iii) Sectors with high and low RK are sectors that are concentrated in less developed regions, and the gap will decrease if this sector develops. However, this method does not clearly establish a low size of the value of WIk and rk, so as a rule the criteria for average values are used (Nurzaman, 2002: 111-115).

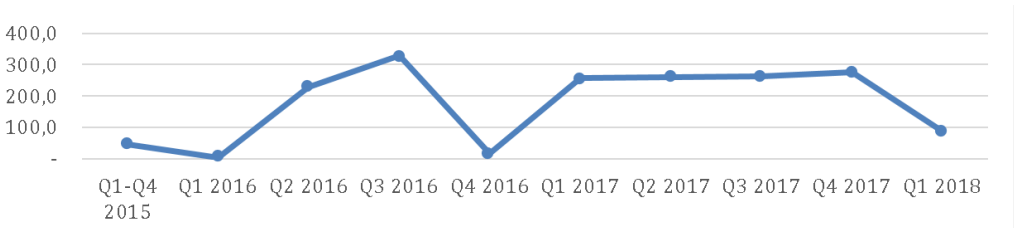
Based on the above ideas, an econometric model was developed with the dependent variable value of the sector Williamson index k (WIk) and the independent variable Location Quotient value of sector k (iQ). The use of the LQ value as a regional concentration index is based on the results of Kuncoro's study (2002: 125-126) on several research results using regional concentration indexes on econometric models. According to him, the LQ value as a regional concentration index gives the best results compared to the values of other concentration indexes. The econometric model for estimating the influence of the concentration of sector k on the distribution of labor sector income k is as follows:

$$WISec_{kt} = \alpha_0 + \alpha_1 \sum_{i=1}^{7} LQsec_{ikt} + y_1 D_p + y_2 D_k + e \qquad (6)$$

Where:
$WISec_{kt}$ = Index Williamson of labour on sector k in period t
$LQsec_{ikt}$ = LQ value area i sector k on period t
D_p = Dummy FDI
D_k = Dummy economic crisis
e = error term

4. Conclusion

From the empirical data it is known that the development of the magnitude of Mauritius FDI investment to Indonesia on a quarterly basis from Q12015 - Q12018 is shown in the graph as follows:

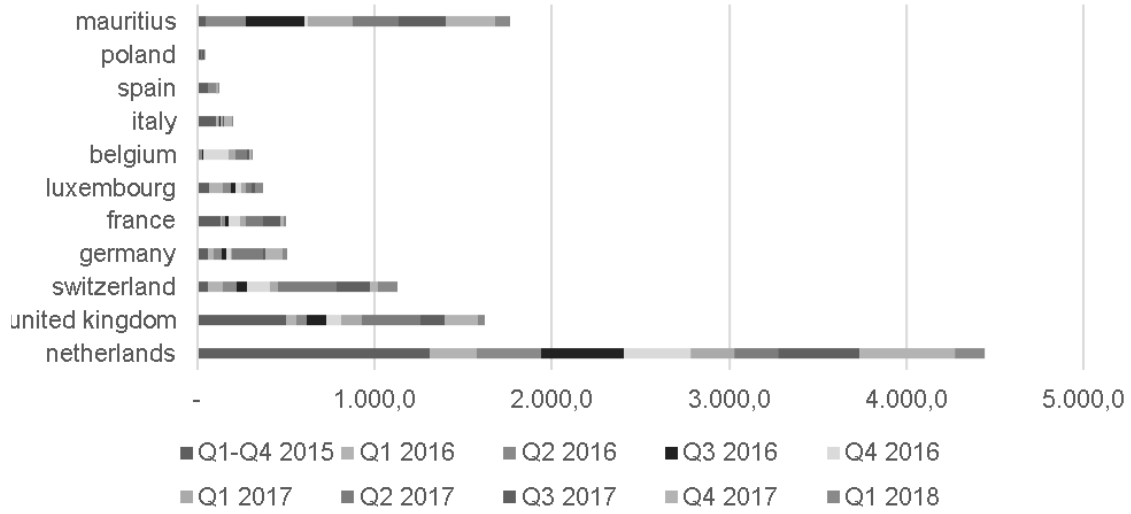


source: BKPM, data processed

Figure 4. Magnitude of Mauritius FDI investment to Indonesia (Q12015 - Q12018)

From the graph above, it is known that Mauritius's FDI investment is in the average range of 176.514 million USD, where the average is even higher than European countries which tend to be more advanced in the economy. The investment value also increased after Q1 2016 and continued to rise exponentially until Q3 2016 and dropped significantly in Q4 2016 with reasons unknown. However, throughout 2017 starting from Q1-Q4 Mauritius's investment value was stable at around 260 million USD.

When compared to Mauritius's investment value with several European countries, it was found that Mauritius has a better investment performance which shows that the country has better economic conditions than more developed European countries. This is illustrated in the following graph:



source: BKPM, data processed

Figure 5. The Comparison Between Mauritius FDI Investment to Indonesia (Q12015 - Q12018) with European Countries

Mauritius has a geographical similarity with Indonesia in the form of an archipelago. The leading sectors are the tourism, culture and handicraft industries and fisheries which support Mauritius's exports and imports. Until now there has been no bilateral cooperation between these two countries because Indonesia has severely restricted cooperation with the Tax Haven Country as part of the institutional economy to prevent money laundering practices carried out by private companies in the process of business development. Mauritius's collaboration with Indonesia is carried out through third party countries, namely Dubai and Singapore, to ensure accountability in the international fund transfer process. To increase cooperation into bilateral cooperation, transparency is needed from Mauritius and ensure that there are no practices that violate Indonesian law as the rule of the game from this international collaboration.

Both countries attend IORA Conference which part of its MOU is cooperation between Indonesian Corruption Eradication Commission and Mauritius Independent Commission Against Corruption (ICAC) through regional conference on effectiveness of anti-corruption and money laundering. This MOU agreed on: (1) sharing on anti-corruption and money laundering strategy (2) capacity development on both countries through training, project & workshop in implementing international of law in war against corruption and money laundering (3) effective investigation techniques and best practices on collecting information and intelligent operation of detecting corruption and money laundering.

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Analysis of the Influence of Economic and Institutional Factors on Foreign Direct Investment

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Abstract

Foreign Direct Investment is a source of capital for some developing and developed countries. The entry of foreign direct investment to various countries is adapted to the economic conditions and conditions of the constitutional terms of the host country. This study aims to analyze the economic factors and institutional factors that can affect of foreign investment inflows in 10 Asia Pacific countries during 2008-2016.

The data used in the study are secondary data obtained from several institutions such as World Bank, UNCTAD, Heritage Foundation, Transparency International, and World Governance Indicators. The model used is the estimation of GLS Fixed Effects.

The results of the analysis suggest that foreign direct investment is influenced by economic factors, namely market size, while the institutional factors affecting foreign direct investment are economic freedom, corruption, and political stability. Therefore, institutional factors need to be considered by the government because it directly affects the direct inflow of foreign investment in a country.

The inflow of foreign direct investment requires a favorable investment climate for host country and home country. The investment climate can be conditioned by economic, social, and political arrangements. If the economic and political conditions of a country stable, then foreign investors believe more invest in a country,

Keywords: Foreign direct investment, market size, economic freedom, corruption, political stability, GLS Fixed Effects

1. Introduction

Foreign direct investment in a country can describe the economic condition of a country in the global era. Every country in the world tries to attract foreign investment from abroad in the hope of having a positive impact on the domestic economy as income. This is in accordance with the opinions of Classical and Neo Classical economists regarding international trade that can encourage economic growth in a country (Nopirin, 1994: 125).

Multinational theory according to Krugman and Obstfeld (1997: 171) explains the expansion of companies from one country to another. Expansion from the origin company is called a home company that provides capital to subsidiaries in the form of direct foreign investment flows. Multinational companies often become loans or international capital flows (Krugman and Obstfeld, 1997: 171).

According to Erdogan and Atakli (2012) foreign investment as a resource that can move to another country by people and organizations. According to him foreign direct investment can overcome the crisis in several countries. Research conducted by Erdogan and Atakli (2012) mentions the crisis in the last quarter of 2008 appeared in the United States, then spread to Europe and other countries. Therefore, this study determines the beginning of the year 2008 to see the development of foreign direct investment in several Asia-Pacific countries (Erdogan & Atakli, 2012). In addition, the ASEAN Investment Report 2012 also mentions that in 2008 and 2009 the impact of global economic uncertainty.

Foreign direct investment occur when a company from a country (home country)

invests in a company in another country (host country). Host country will receive benefits from investment inflows and home country can expand so that the company is categorized as a multinational company. In reality, investment always contains risks both economically and in the political situation of a country. Bodie, Kane, and Marcus (2006) analyze there are several risk factors in international investment such as exchange rate risk and country-specific risk. One country-specific risk is political risk and economic risk. Some political risks such as government stability, corruption, internal and external conflicts. Financial risks in the PRS assessment are foreign debt, interest on foreign debt, exchange rate stability, and current account. Economic risk through GDP per capita, annual real GDP growth, inflation rate , budget balance, and current account balance.

Even though investments are identical with various risks, investors do observe the host country before investing. Economists argue that trade policies applied in practice are dominated by political interests rather than seeing profits for the state (Krugman and Obstfeld, 1997: 222). A good international policy is when there is synchronization between economic and non-economic aspects such as cultural aspects, political aspects, and security aspects (Boediono, 2015: 153).

According to Castro and Nunes (2013) the inflow of foreign direct investment is not only influenced by economic factors but also business facilities and institutional frameworks, in this case corruption is considered an important determinant. According to Dickie and Layman (1988: 143-162) that there are several factors that can affect investment such as: (1) the tax system; (2) flexibility; (3) other sources of capital; (4) stock prices; (5) expansion; (6) politics. Research conducted by Freckleton, Wright, and Craigwell (2011) quotes from The World Bank (2000) that each year there are funds that are lost about 1 trillion US Dollars or about 5% of world GDP lost due to corruption. According to Rose-Ackerman (1999) the greater the government's contribution to the bureaucracy can increase corruption.

The value for measuring the level of corruption in a country uses the corruption perception index published by Transparency International. The Corruption Perception Index is a combination index of various international surveys and corruption assessments collected by various reputable institutions. The index consists of thirteen independent institutions specializing in government and business climate analysis that includes expert judgment and the views of employers (Transparency International, 2017) . The criteria set by Transparency International for countries with values close to 0 mean that they are increasingly corrupt, while the closer to the value of 100 countries has a low level of corruption. This is consistent with the explanation of Hamidi and Hmadi (2017) that the index in Transparency International is measured from the interval 0-100 where 0 (very corrupt) and 100 (not corrupt).

Various studies prove the positive and negative effects of corruption on foreign direct investment. Therefore, this research is considered important by examining the relationship of corruption to foreign direct investment. The year of observation was carried out in 2008-2016 so that it became the latest year of previous research. The selection of state objects is carried out by listing 7 Asia-Pacific countries which are members of ASEAN plus Australia, Japan, Hong Kong because the three countries have a high corruption index in the Asia-Pacific. This study included several independent variables such as paar size variables measured through real GDP, trade openness variables measured through net exports, economic freedom variables through the economic freedom index, corruption variables, corruption control variables, and political stability variables.

2. Literature Review

Research that did by Castro and Nunes (2013) finds out whether corruption inhibits FDI flow in 73 countries during the period 1998-2008 controlled by economic and political

variables. The results of this study indicate that countries with lower levels of corruption, FDI inflows are greater, and the presence of corruption control can be an important strategy to increase FDI inflows. The study uses the GLS Fixed Effects regression research model to see the effect of corruption as a significant determinant of FDI inflows or not. Research by Castro and Nunes (2013) found that large market sizes attract more FDI. In addition, more open markets tend to attract foreign companies. More open economic variables have the potential to offer more efficient allocation of resources, providing economic benefits. Trade openness statistically significant in the expected direction. In this study it is clear that corruption is an important determinant of FDI inflows. The results also show that tax policies, low regulatory burdens that facilitate company installments and growth, and a stable political environment are important factors for foreign investors.

Research that did by Sambharya and Rasheed (2013) uses several independent variables to analyze the effect on FDI consisting of GDP per capita, economic freedom, trade and investment, economic management, government participation in the economy, state interference and corruption, and wages and price. This study uses panel data regression method with a sample of 96 countries during the period 1995-2000. The high level of government participation in the economy has an inverse relationship to the influx of FDI. The high level of state intervention and corruption have a significant negative relationship to FDI inflow. Wages and prices are significantly positive related to FDI inflows and finally political freedom has a positive relationship to FDI inflows.

Another study conducted by Ketkar, et al (2005) regarding the impact of corruption on FDI and income tax. studied 54 countries from 1995-1998 which consisted of developing countries and developed countries, seven of which were the largest source countries for FDI: US, Japan, Germany, Britain, France, Canada and Italy. The independent variables used see the effect on FDI, namely economic growth with GDP proxy, openness of the economy with the proxy of exports and imports (as a percent of GDP), capital control, US FDI returns in various countries obtained from Survey of Current Business, size government with a proxy for government spending, and tax revenue from income tax obtained from Government Finance Yearbook, 2000. The method used by Ketkar, et al is panel data regression. The results of the research by Ketkar, et al (2005) found that high levels of corruption reduce FDI flows. Mathur and Singh's (2011) study also found the effect of corruption on investment decisions. This article shows that foreign investors pay attention to economic freedom (proxy for property rights protection index), in making decisions to invest. Therefore, more democratic countries will probably receive less flows of Foreign Direct Investment (FDI) if economic freedom is not guaranteed. As long as democracy is able to provide greater economic freedom to its citizens, they will also become more attractive places for investors.

Unlike previous studies, Bayar and Alakbarov (2016) did not get the same results regarding the effect of corruption on FDI. This study investigates the interaction between corruption and foreign direct investment in 23 emerging market countries in the 2002-2014 period. The method used is the Durbin-Hausman cointegration test to investigate the long-term relationship between FDI, corruption, and law enforcement. The conclusion obtained is that there are long-term relationships between variables, but corruption and law enforcement do not have a statistically significant impact on FDI flows.

3. Methodology

This study uses panel data with 100 observations outlined in 10 observation countries and 10 years of research. The country used as the object of the study consisted of ten countries in the Asia-Pacific consisting of the Philippines, Indonesia, Malaysia, Singapore, Thailand, Vietnam, Laos, Australia, Japan and Hong Kong. The initial election period was

caused by a crisis in various countries in 2008. This study uses secondary data, namely data collected by other parties (Mubyarto and Suratno, 1981: 50). Some data sources in this study are World Bank for market size data, UNCTAD for trade openness data (export and import), Heritage Foundation for data on economic freedom indexes, Transparency International for perceptions of corruption index data, and World Governance Index (WGI) for corruption control index data and for political stability index data. The specification model used is Fixed Effects GLS which is a Fixed Effects regression estimation form that is given weighting. The GLS method is an OLS method that is applied to the model and transformed so that it meets the requirements of classical assumptions (Gujarati and Porter, 2009: 372). Autocorrelation problems can occur in time series data, whereas heteroscedasticity problems can occur when the variance of UI disturbances, to explanatory variables varies (Gujarati and Porter, 2009: 412 and 471). According to Gujarati and Porter, the two problems of classical assumptions can be overcome through several ways, one of which is to change the OLS estimation method into GLS estimation method by giving weight.

4. Results and Analysis

This study analyzes whether there is an influence of independent variables consisting of non-economic and economic factors on foreign direct investment (FDI) during 2008-2016. Fixed Effects estimation results experience heteroscedasticity and autocorrelation problems, so it is necessary to cure the problem of classical assumptions with GLS estimation. Based on Table 1 the probability variables of market size (GDP), economic freedom variables (EF), corruption variables (CPI), and political stability variables (PS) are smaller than 0.05 so that the independent variables have a significant effect on the dependent variable. The probability of trade openness variable (OT) is 0.42 so that the trade openness variable does not have a significant effect on FDI variables.

Based on the value of the t-Statistics variable market size (GDP), economic freedom (EF), and political stability, (PS) has a positive influence on FDI. This means that the greater the size of a country's market has a positive impact on the entry of FDI in the country. One of the economic considerations considered by international corporations (MNC) in placing FDI is location-specific advantage. The location chosen in placing FDI in a country is expected to be profitable for MNC companies (Bakry, 2015: 198). Economic freedom in a country also provides opportunities for the entry of FDI funds in a country. According to Goel and Nelson (2005) shows that economic freedom reduces bureaucracy, disruption of bureaucracy and government interference. The stability variable also has a positive impact on the entry of FDI in a country because stable political conditions give investors confidence.

Variable corruption has a negative influence on the entry of foreign investment in a country. Corruption, which can be caused by one or several factors, such as excessive bureaucracy, high policies in the formulation and implementation of policies, inefficiencies and slowness of the legal system, low wages of civil servants and low levels of economic freedom, has the potential to affect many economic aspects such as foreign investment and economic growth (Castro and Nunes, 2013). From the overall regression results, market size variables, economic freedom variables, corruption variables, and political stability variables are in accordance with the theory and several previous studies.

Table 1. The Results of Fixed Effects Regression

Variabel	Koefisien	Std. Error	t-Statistic	Probabilitas
C	1.076871	2.904712	0.370733	0.7119
GDP?	0.249291	0.035015	7.119591	0.0000

Variabel	Koefisien	Std. Error	t-Statistic	Probabilitas
OT?	-2.93E-06	3.66E-06	-0.801178	0.4256
EF?	0.114321	0.053831	2.123717	0.0370
CPI?	-0.100773	0.032186	-3.131006	0.0025
PS?	0.062921	0.025600	2.45861	0.0163
Weighted Statistic				
R Squared	0.870460			
Adjusted R-Squared	0.846279			
F-statistic	35.99796			
Fixed Effects				
(Cross)				
_FILIPINA—C	-5.461603	-4.22544		
_INDONESIA—C	-5.302311	-4.384732		
_MALAYSIA—C	-4.612408	-3.535537		
_SINGAPURA—C	9.734290	10.811161		
_THAILAND—C	-3.875484	-2.798613		
_VIETNAM—C	-2.351749	-1.274878		
_LAOS—C	-4.642374	-3.565503		
_AUSTRALIA—C	-4.095084	-3.018213		
_JEPANG—C	-6.868663	-5.791792		
_HONGKONG—C	27.47539	28.552261		

source: Secondary data (processed, see Appendix 10)

5. *Conclusion*

Based on the results of the analysis and discussion in Chapter IV can be concluded as follows:

1. Market accounts have a significant effect on foreign direct investment inflows in 10 Asian-Pacific countries. The effect is positive.
2. Economic freedom has a significant effect on foreign direct investment inflows in 10 Asian-Pacific countries. The effect is positive.
3. Corruption has a significant effect on foreign direct investment inflows in 10 Asian-Pacific countries. This effect is negative
4. Political stability has a significant effect on foreign direct investment inflows in 10 Asian-Pacific countries. The effect is positive.

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