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Does ESOP Improve the Productivity and Firm's Performance?

Yuyun Isbanah
Department of Management,Universitas Negeri Surabaya, Indonesia
Corresponding Author: Yuyun Isbanah

Abstract: *This study aims to test the effect of Employee Stock Ownership Programs (ESOP)on firm performance by using productivity as a mediating variable on non financial company in the Indonesia Stock Exchange. A company that applies ESOP is used as a sample in this study. In this study the firm performance is measured by using return on assets, return on equity and Tobin's Q, while the productivity is measured by using sales per employee indicators, sales per employee, cash flow per employee, and total assets turnover. Partial Least Square (PLS) was used as the analysis method. The result of hypothesis testing indicates that the ESOP has a significant positive effect on productivity. Productivity also has a significant positive effect on performance. In this study there is no direct influence between ESOP on performance, but there is an indirect influence between ESOP on performance and using productivity as a mediating variable. ESOP in this study proven to be capable as one of the company's medium to increase labour productivity. Although directly the stock ownership program by employees is not proven to have an effect on performance, the program indirectly used the productivity as a mediator was proven to be able to improve the firm's performance even though the effect is very small. Considering the findings, it is expected that the results of this study can be input for companies that have not implemented ESOP to begin to consider the benefits of the program.*

Keywords: *Employee Stock Ownership Programs, Performance, and Productivity*

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I. Introduction

A conflict of interest can happen between the owner or shareholder and manager and employee, or between the majority and minority shareholders. These conflicts of interest can affect the productivity and the firm's performance. One of the effective efforts to reduce the conflicts of interest between owners and firm's managers is by applying *Employee Stock Ownership Programs* (ESOP) [1].

ESOP program basically intended to provide the motivation and incentives for employees. So, employees will have a sense of belonging to the company. This sense of growing concern from the conscience of employees can be expected to be realized, especially after the realization of programs to improve employee welfare through salary increases, benefits, bonuses and other facilities.

The implementation of ESOP can stimulate productivity and concern for employees in the company. Productivity is a reflection of the level of efficiency and total work of effectiveness in a company [2]. Increased productivity can be achieved by minimizing all kinds of costs including do the right thing and increasing the do the thing right [3]. Productivity becomes very important; it can describe the firm performane.

Employee concern will ensure the quality of the product because all of the employees feel that ownership will help to maintain the sustainability of the company in the long term. All employees need to understand how the company operates and how its performance affects the firm's performance. When employees feel as a company's owner, they will increase their professionalism at work, because the company's income becomes the employee income, and the company's costs will be borne by employees. If the employee's concern for the company can be realized, it will encourage an increase the value of the firm, or in other words the stock price will also move up.

Research on ESOP has also been carried out in several countries. There is no difference in the firm's performance before and after the ESOP implements [4], [5]. ESOP had an effect on performance but its effect was only in the short term [6]. Similar results that show the differences in the firm's performance before and after the implementation of ESOP and the positive influence of ESOP implementation on the firm performance [7],[8],[9],[10].

This research will try to prove, by using a longer period of time whether the implementation of ESOP program is able to increase the productivity and ultimately improve the performance of companies in Indonesia. This research is a synthesis of several studies that have been conducted. The fundamental difference in this study is that it uses the productivity as an intervening variable between the influence of ESOP on performance and more complex measurement of performance which includes financial performance and market performance.

II. Material And Methods

ESOP (*Employee Stock Ownership Program*)

Employee Stock Ownership Program (ESOP) is a stock ownership program by employees for the company's shares where the employee works[11]

Productivity

Productivity is the ratio between the results of activities (output) and all sacrifices (costs) to realize these results (input) [12]. Inputs can include a (*production costs)* and (*equipment costs)*. While output can consist of sales (*sales*), *earnings* (income), *market share*, and damage (*defects*) [13].

The improvements of productivity can be achieved by pressing down on all kinds of costs including human resources (*do the right thing*) and increasing the output as much as possible (*do the thing right)*[3]. In other words, productivity is a reflection of the total level of efficiency and effectiveness of work [2]. In this study, the measurement productivity uses *sales per employee* (S/EMP), *cash flow per employee* (CF/EMP), and *Total Assets Turnover* (TAT).

The Firm's Performance

Performance is a measure or level at which individuals and organizations can achieve goals by effectively and efficiently [14]. In this study, the firm's performance is divided into two kinds, namely the company's financial performance and market performance. The firm's financial performance is measured by using *Return on Assets* (ROA) and *Return on Equity* (ROE), while market performance is measured by using Tobin's Q Ratio.

The Effect of ESOP on Productivity

Money incentives on increased productivity is a powerful incentive to increase the active participation of workers [15]. Giving ESOP is an award or a form of compensation that is expected to realize a common goal, both for employees and for the company. ESOP is given to the outstanding employees. This is expected to trigger employees to be able to improve their performance. The company hopes that with the employee's share ownership program, the employees will be motivated to improve the quality of their performance, because through this program it is expected that the employees will feel that they have a company, so that the level of labour productivity in the company will increase in line with the target.

The Effect of Productivity on Performance

Firm performance is always related to the productivity. Productivity is an important factor in maintaining and developing a company. A company is called productive if it can achieve its objectives by transferring inputs into output at low costs [16]. Productivity serves as a measure of individual development in developing quality performance. Productivity is one measure of firm performance. Productivity is believed to be able to improve firms performance.

The Effect of ESOP on Performance

The relationship between ESOP and the firm's performance can be explained in agency theory. Agency theory shows that public companies are characterized by certain agency costs. These costs are borne by the shareholders (the real owners of the company) who rely on company managers (agents) to manage the company in order to maximize profits. As a result, there is a separation of control and ownership. The degree to which managers use their ability to maximize shareholder wealth depends on the percentage of manager ownership in the company [17].

Based on the definition, ESOP increases the percentage of *inside owners* in a company. If the new owner truly has decision making authority, then based on agency theory, the efforts will be made to increase shareholder wealth, and is expected to improve company performance [18]. Employee stock ownership (ESOP) tends to favour the incumbent manager and increase the employee incentives, so the influence of ESOP on the company is very important [7].

Research Hypothesis

H1: ESOP has a positive effect on productivity.
H2: Productivity has a positive effect on firm's performance.
H3: ESOP directly has a positive effect on firm's performance.

Research Method

This research aims to obtain evidence of causal relationships between the implementation of ESOP on increasing the productivity and the firm's performance on the companies that is going to public on the IDX in the period 2000 to 2010. The population of this research is companies that implement ESOP on the Indonesia Stock Exchange from 2000 to 2010 The data collection technique used in this study is the purposive sampling method. The sample used is a company that implements ESOP on the Indonesia Stock Exchange in the period 2000 to 2010 selected based on criteria: Companies that implement ESOP on the Indonesia Stock Exchange (IDX) from 2000 to 2010, Companies that are in the non-financial category and Available of the complete data in the study period.

Operational definitions and variable measurements

Exogenous Variables: *Employee Stock Ownership Program* (ESOP)

ESOP defined as the number of shares held by the employees from the effect of allotment. ESOP is measured using a score, that is, companies that implement ESOP are coded 1 (one), while those that do not implement ESOP are coded 0 (zero).

Endogenous variable: The Firm's performance

Firm performance consists of financial performance (ROA and ROE), and market performance (Tobin's Q).

a. Return on Asset (ROA)

Return on Assets measures a company's ability to generate the net income based on certain asset levels.

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}} \text{ x } 100\% \quad \text{................................ (1)}$$

b. Return on Equity (ROE)

Return on Equity measures a company's ability to generate profits based on certain share capital. This ratio is a measure of profitability from the perspective of the shareholders.

$$\text{ROE} = \frac{\text{Net Income}}{\text{Total Equity}} \text{ x } 100\% \quad \text{................................ (2)}$$

c. Tobin's Q

Tobin's Q Ratio used as an indicator for measuring market performance. This ratio is the market value of all securities divided by the replacement cost of assets.

$$Q = \frac{(\text{EMV} + \text{D})}{(\text{EBV} + \text{D})} \quad \text{...(3)}$$

With:

Q = Tobin's Q value
EMV = equity market value (*equity market value*)
EBV = book value of total assets (*equity book value*)
D = book value of total debt

EMV is obtained by multiplying the closing stock price (*closing price*) with the number of shares outstanding at the end of the year.

EMV = *closing price* x Σ outstanding shares

Intervening Variables: Productivity

Productivity measurement indicators use in*sales per employee*, in*cash flow per employee*, and *total assets turnover*:

a. Sales per Employee (S / EMP)

Sales per employee are defined as a comparison of the number of sales with the number of company employees in one period.

$$\ln \text{S/EMP} = \ln \frac{\text{sales}}{\text{number of employees}} \quad \text{.................................. ... (4)}$$

b. Cash flow per employee (CF / EMP)

Cash flow per employee is defined as a comparison of the company's cash flow with the number of employees in one period.

$$\ln \text{CF/EMP} = \ln \frac{\text{EBIT} + \text{Depreciation} + \text{amortization i}}{\text{number of employees}} \quad \text{......................... (5)}$$

c. Total Assets Turnover (TAT)

Total asset turnover is defined as a ratio that measures a company's ability to use assets productively. *Total assets turnover* is measured by sales divided by total assets.

$$\text{TAT} = \frac{\text{sales}}{\text{total assets}} \quad \text{.. ...... (6)}$$

III. Result

Convergent validity and *discriminant validity* to test the model un-dimensionality and reliability test by considering the *average variance extracted* and *composite reliability* values was used as a validity test.

Validity Test

Test of validity seen from the value of convergent validity, and discriminant validity. Based on the results of *outer loading*, known that Q and TAT indicators are removed from the model because they have a *loading* of less than 0.50 and are not significant (significance t-table 5% = 1.96), namely Q (Tobin's Q ratio) only has a *factor loading* of 0.036 with t-statistics 0.101 while the TAT (*Total Assets Turnover*) has a *factor loading* of -0.261 with a t-statistic of 0.710. Furthermore, the model is re-estimated by removing the TAT and Q indicators. After re-estimating the results it meets *convergent validity* or all *goodness-of-fit* criteria are statistically fulfilled and acceptable, so the model will be used in further analysis.

Discriminant validity can be seen in *cross loading* between indicators and their constructs. The results show that the construct correlation with the indicator is higher than the correlation between ROA and ROE indicators with other constructs (productivity). This also applies the opposite, namely the construct correlation with the indicator of *cash flow per employee* and *sales per employee* is higher than the correlation between the indicators of *cash flow per employee* and *sales per employee* with other constructs (performance). This shows that constructs of productivity and performance predict indicators on their blocks are better than indicators in other blocks.

Another method for assessing *discriminant validity* is to compare the square root of *average variance extracted* ($\sqrt{\text{AVE}}$) for each construct with a correlation between the construct and other constructs in the model. The model has sufficient *discriminant validity* if the AVE root for each construct is greater than the correlation between constructs and other constructs. The test results show that the AVE root performance construct is 0.957 ($\sqrt{0.916}$) higher than the correlation between performance constructs with ESOP and performance with productivity, which is only at -0.057 and 0.190. Likewise with AVE root construct productivity of $0.942\sqrt{0.887}$) higher than the correlation between productivity with ESOP and productivity with performance. So all the constructs in the model estimated meet the criteria of *discriminant validity.*

Another test is to assess the validity of the construct by looking at the AVE value, a good model is required if the AVE of each construct is greater than 0.50. The AVE output shows that the AVE value for both the performance construct and productivity construct has a AVE value greater than 0.50.

Reliability Test

The results of *composite reliability*output show that both constructs and productivity are all above 0.70. So it can be concluded that the construct has good reliability.

Hypothesis testing

Hypothesis testing results are shown in table 1

Table 1. ***Inner Weights***

	Original Sample Estimate	Mean of Subsamples	Standard Deviation	T-Statistic	Explanation
Esop -> Productivity	0.184	0.184	0.070	2.616	Significant
Productivity -> Performance	0.208	0.218	0.090	2.299	Significant
Esop -> Performance	-0.096	-0.089	0.064	1.494	Not Significant
R-Square					
ESOP					
Performance : 0.045					
Productivity : 0.034					

Source: Result of Data Processing by using PLS

The size of parameter coefficient between ESOP on productivity is 0.184 and t-statistic is 2.616 significant (level significance of t-table 5% = 1.96) which means that there is a positive effect of ESOP on productivity. The higher level ESOP implements,the higher the productivity of employees, and vice versa.

The result of the hypothesis testing found that the size of parameter coefficient between productivity to performance is 0.208 which means there is a positive effect of productivity on performance. So, the higher the productivity of the employees, the higher the firm's performance that produced with t-statistic 2.299 significant (level significant of t-table 5%= 1.96).

ESOP did not show any significant effect onperformance. This is indicated by the parameter coefficient value between ESOP with performance in the amount of -0,096 with t-statistic is 1,494 (t-statistic less than t-table).

Testing of the structural model was done by looking at the R-Square value which is *goodness-fit test model.* The influence model of ESOP on productivity gives R-Square is 0.034 which can be interpreted that the productivity constructive variable can be explained by ESOP variable 3.4%, while 96.6% is explained by other un-researched variables. The influence model of ESOP and productivity on performance gives R-Square value of 0.045 which can be interpreted that the construct variable of company performance can be explained by ESOP variable by using productivity as a mediating variable 2.5%, while 97.5% is explained by other variable that not examined.

IV. Discussion

The effect of ESOP on productivity

The measurement of productivity is done by using *sales per employee, cash flow per employee,* and *total assets turnover.* From the three indicators of measurement, *cash flow per employee* has the highest *loading factor* value as an indicator that represents productivity measurement. The result of this study showed that ESOP has a positive significant effect on productivity. This can be interpreted that the higher the implementation of ESOP, the higher the productivity in company or otherwise the lower the implementation of ESOP, the lower the productivity, which in this case the productivity is measured by using *cash flow per employee*.

Employee Stock Ownership Program has a positive impact on cash flow per employee in the company. The implementation of ESOP in the company becomes a corporate strategy to encourage the employee spirit so as to increase employee productivity. This is in line with [15], states that by embedding money incentives on increasing productivity is a powerful enough stimulus in order to raise the active participation of the workforce, where one of the efforts that can be done is by providing ESOP which is an award or a form of compensation that is expected to realize a common goal, both for employees and for the company.

The result of this study in line with [11] that the implementation of ESOP can increase the productivity in the company. This result support [19] that ESOP can increase the productivity until 4-5% on electronic company in Taiwan. The previous result similar with [8]. The study looking for the effect of employee stocks ownership plans (ESOP) and bonuses by estimating the functions of production and using panel data in companies in Japan. The result of this study indicated that the introduction of ESOP affect a 4-5% increase in productivity, where the result of that productivity increases within 3-4 years. A simple bonus system also increases productivity.

The results of these studies contradict with [4]. The research was aimed for observing the impact of the implementation of ESOP on the productivity and performance. The analytical method that used is comparing the one year before with one year after, two years after and four years after the implementation of ESOP. The results of the study did not indicate a significant difference in productivity and performance between before and after the implementation of ESOP.

The Effect of Productivity on Firm Performance

Productivity has a positive effect on firm performance. The relationship shows that the higher the productivity of the employees in a company, the higher the performance generated in the company, and vice versa. In this study, the measurement indicators of the performance used *return on assets, return on equity,* and Tobin's Qratio. From the test results, it can be seen that the three measurement indicators *return on equity* has the highest *loading factor* value so that is used to represent the measurement indicators of the performance variables.

Productivity is an important factor in maintaining and developing a company. According to [16], a company is called productive if it can achieve its objectives by transferring inputs into output by low cost, in this case the productivity serves as a measure of the individual development in developing quality performance. Productivity is one of a tool to measure the firm's performance. In line with this, the test result in this study showed that productivity proven to increase the firm's performance.

The Effect of ESOP on Firm Performance

The result of hypotethis testing shows that there is no direct effect between ESOP and firm performance. Although, the period of the study was carried out in long term of 11 years, however employee stock ownership programs directly have not been able to influence the firm's performance.

ESOP increases the percentage of *inside owner* in a company [18]. If the new owner truly has the authority to make decisions, then based on the theory of agency, efforts will be made to increase shareholder wealth, and expected to improve the firm's performance. However, the result of this study has not been able to prove the theory. This is probably due to the relatively large portion of stocks from the ESOP stock allotment which is that employees has the right to get an average of only 5% of the shares offered. Stock ownership by employees is limited to minority ownership. Even though the employee acts as the owner of the company, decision making remains with the top management and parties with majority stock ownership or representation. So, the impact of stock ownership by employees is still not visible in the performance produced.

Another reason is related to the culture of company. The ESOP program involves threeelements, there are elements of shareholders, management, and employees. Each company has a different culture in motivating employees. It will affect the decision of the purpose of carrying out the policy. If in a company the employee is not too close to the world of stocks, it will certainly be an obstacle in the implementation of the ESOP program. Furthermore, not all employees have the right to buy ESOP stocks. So, the performance of some employees who own company shares is not enough to represent the performance of all employees that will improve the company's performance.

These findings is related with [4], [20] that ESOP has no significant effect on the growth rate of firm performance and there is no difference in performance either before the implementation of ESOP or after implementation ESOP. Implementation of ESOP decreased the *financial returns* in large firms and did not have a significant effect on small firms [5]. These results support the result of study about ESOP in Indonesia [1], shows that the measurements at one year before and two years after implementing ESOP, does not show an effect on performance as measured by ROA and ROE. ESOP announcements also have no positive effect on the increasing of the company value.

The results of the research above was contradict with [9], [10], [11], [21] which all of them support that the ESOP program provides a benefits in improving of performance. The impact of ESOP implementation on company performance, by conducting a different test shows that ESOP only has a short term impact on improving company performance, where the performance variables that have increased due to ESOP implementation are NPM, ROA, and ROE [6]. There are positive relationship between ESOP and firm performance as measured by profitability ratio, namely ROE and ROI in France [21].

Although the direct implementation of ESOP is not proven to be able to affect the firm's performance, the results of the analysis in this study indicate that by indirectly ESOP can improve the firm's performance by using productivity as a mediating variable. When a company implements the ESOP, employees will feel a sense of belonging to the company [11]. The position of the employee means as well as the owner of the company. So, the profits derived from the results of the company's operations will be an income for employees, whereas the costs incurred by the company will be a burden on employees. Thus employees will try to increase their productivity. When their productivity increases, the production cost per unit in the company becomes cheaper, so that it will be positively connect with company profits. Profit here is a reflection of the company's performance. Through a stock ownership program by the employees, employees as owners will be motivated to increase labour productivity and indirectly work to prosper themselves so that it will improve the quality of its performance and improve the firm's performance in accordance with the targets to be achieved by the company.

V. Conclusion

Based on the results of the analysis and discussion, it can be concluded that the Employee Stock Ownership Program (ESOP) has a positive and significant effect on productivity. So the higher the level of the implementation of ESOP, the higher the productivity produced in the company, and vice versa. Productivity has a positive and significant effect on company performance. So increasing productivity in the company will improve the performance of the company. The implementation of ESOP directly has no effect on company performance, but indirectly ESOP has an effect on the firm's performance by using productivity as a mediating variable.

Recommendations for further researchers, that this study does not include micro factors such as motivation and organizational culture. Both of these factors may become as supporters of the successful implementation of ESOP in improving the firm's performance. The companies' data that applies ESOP are obtained from the *Indonesia Capital Market Directory*. For further research it may be possible to use other sources so the sample of the company is more, thus the effect of ESOP on performance can be more visible.

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