

Indonesian Corporate Performance Analysis Based on Employee Stock Ownership Program (ESOP) Implementation

Clarissa Veronica¹, Subiakto Soekarno²

¹ School of Business and Management, Institut Teknologi Bandung

clarissa.veronica@sbm-itb.ac.id

² School of Business and Management, Institut Teknologi Bandung

subiakto@sbm-itb.ac.id

Abstract: *Employee Stock Ownership Program (ESOP) is a new breakthrough, contemporary yet attractive way to give compensation to employee in a company. Many previous researches showed that ESOP can leverage company performance. Hence, this research is addressed to: 1) analyze the difference of company's profitability and market value between before and after ESOP implementation, 2) describe how ESOP can affect them. There are 5 profitability proxies and 3 market value proxies which are set as variable measurements, they are ROA (Return on Asset), ROE (Return on Equity), NPM (Net Profit Margin), EPS (Earning per Share), Operating Profit Margin (OPM), Price Earnings Ratio (PER), Price to Book Value (PBV), and Divided Yield from 10 years period (2000-2010). The data population is only for listed companies in Indonesia Stock Exchange. The source of data is mostly collected from Indonesia Capital Market Directory (ICMD) and Indonesian Capital Market Electronic Library (ICAMEL). This study is categorized as descriptive statistics and uses purposive sampling with defined criteria that result 17 qualified companies as samples. In order to answer the objectives, the Kolmogrov-Smirnov test will be conducted as the first stage. Later on, Paired Samples T-test will be used for normal distribution data calculation while Wilcoxon Signed Rank test will be for the opposite as a nonparametric statistics tool. The results for this research are 1) ESOP positively efficient to increase PBV; 2) ESOP turns out to decrease EPS. This research can be useful for 1) Indonesian companies to consider whether to adopt ESOP or not; 2) Investors to consider whether it will be wise or not to invest in Indonesian companies that adopt ESOP.*

Keywords: *Employee Stock Ownership Program, Indonesian Corporate, Market Value, Profitability, Statistics*

1. Introduction

Employee Stock Ownership Program (ESOP) is a human resource management program by giving proportion of company stock to the employee. Although in the early year of its implementation, ESOP only related to limited number of senior executives in company, now as the trend has changed, it could be given to all employees. Company that adopts Employee Stock Ownership Program (ESOP) will give parts of its shares annually and put them into "trust" account. "Trust" account is an individual account reserved for employees and will be opened when company gives its own shares based on employees' performance, salary, position, or working hours.

The concept of employee ownerships are undertaken by the company as it provides a frame work of work motivation. The idea of motivating employee can be expanded through financial participation which would eventually link compensation more closely to employee and company performance. Because it ties employee income and wealth to company performance, employee ownership has often been viewed as a means to improve productivity and performance by decreasing labor-management conflict and encouraging employee effort, cooperation, and information-sharing.

During years, this program has been implemented in several countries like United States of America, China, British Columbia Canada, Singapore, Egypt, Hungary, Ireland, Russia, Malaysia, and others. Meanwhile, the implementation of ESOP in Indonesia companies is not a common thing in the grounds of no sufficient law instruments in aspects of capital market, taxation, and employment. The implementation of ESOP varies based on shareholder's policies. Of course this leads to nowhere but perplexing guidelines and foundation to set up the program. Though it is not yet strongly supported by the law, there are public companies that ever implemented ESOP, such as PT Indosat Tbk. (telecommunication), PT Bakrie Development Tbk. (real estate), PT Indofood

Sukses Makmur Tbk. (food and beverage), PT Indonesia Air Transport Tbk. (transportation), PT Surya Semesta Internusa Tbk. (real estate) and so on.

1.1. Research objectives

The objectives of this research are to:

- To analyze the differences of companies' performance (specific in profitability and market value) during 2000-2010 as the year before ESOP was being implemented and after ESOP was being cut out
- To provide further explanation how ESOP implementation affects significantly to company performance (specific in profitability and market value) at that time.
- To build recommendation toward the result of analysis

1.2. Research limitation

The research will restrict the sample only for go-public and non-financial companies in Indonesia which has been listed in *Bursa Efek Indonesia* or Indonesia Stock Exchange (furtherly abbreviated to IDX). These companies must adopted ESOP within the ranging time from 2000-2010. The company performance will only be examined and analyzed through profitability ratio and market value ratio.

2. Review of Literature

2.1. Employee stock ownership program

Employees have become the major players in capital ownership worldwide through Employee Stock Ownership Program. . In 1980s, when ESOP began its journey and world started to realize its beauty of sharing equity to employee, it was created in purpose to build long term commitment between company's employee (Amato, 2000), increase psychological feeling, and jack the company performance up. There are particular reasons why companies would like to adopt such program (Redep et al, 2005):

- The company's owner wants to include the employees into ownership
- Gain tax benefit
- Leverage the company's productivity
- Anticipate take over action by other companies

2.2. The benefits of adopting employee stock ownership program

According to Ann Lin (2012), ESOP was also created in response to the development of new economy and the need of compensation reformation. The research also discovered that employee stock ownership had strong relation to psychological effects since every man has nature to feel proud and special when they chance to own over subject which consider as important thing to their personal life. Underlying theory of employee ownership which could leverage the motivation and psychological impact has been written under the name of Klein in 1987 through "Three Models of Satisfaction". First, it is "The Intrinsic Satisfaction Model" that considers the ownership itself as the critical variable to affect the attitudes. Second, "Instrumental Satisfaction Model" is the here-in-after model that explains attitudinal effects in employee ownership as it may possibly enhances employees' rights to information and participation in decision making. Last but not least, "The Extrinsic Satisfaction Model" suggests that positive attitudinal effects could only be gained if it is financially rewarding to employees (Klein, 1987, pp. 320-321).

2.3. Assessing ESOP through company performance

From the research by Park and Song (1995), some ratios that can be used to examine the correlation between establishment of ESOP and company performance are market-to-book value, return on asset (ROA), or Tobin's q ratio. Another research in similar topic held by Blasi, Conte, and Kruse (1996) conclude that ROA or earnings ratio, change in stock price, and return on equity (ROE) are several variables to conduct the financial analysis. While in different period, Thompson (2003) conducted financial analysis by calculating the company's productivity using delta sales formula. Ghea Maharani (2010) also stated that there are profitability ratios and turnover ratio which usually applied to calculate the effect of ESOP in company performance. Back in 1995, a research resulted in positive average stock price reactions to ESOP announcement by the firms (Chang and

Mayer, 1992; Chaplinsky and Niehaus, 1994). Therefore, stock price is one aspect that relates to ESOP adoption. Stock price can be calculated through EPS (Earnings per Share) and P/E Ratio (Price per Earning).

2.4. Common dilemma encountered by Indonesian company

Tried to follow contemporary compensation trend, Indonesia started to apply employee stock ownership in 1998s with limited types of company that can afford it which are public companies and multinational companies. The fundamental law about employee stock ownership in Indonesia is the Statement of Financial Accounting Standards No. 53 which officially carried out since October 1, 1998. Unfortunately there is no specific regulation on ESOP other than the form of allotment. Moreover, Indonesia doesn't have sufficient taxation laws that give relief on issuance of shares to employee. Therefore, the trend of ESOP is not really working well in Indonesia (Badan Pengawas Pasar Modal, 2002; Sanjaya, 2012).

3. Research Methodology

3.1. Data sampling

This research uses purposive sampling. Criteria that are used are:

- Non-bank companies listed in Indonesia Stock Exchange. The reason that bank companies are excluded is because they have different financial regulation and policy that might affect the data
- Data of all non-bank companies with full access and high availability
- Indonesian companies that adopt ESOP during 2000-2010

Based on the criteria, 17 companies have been chosen as the samples of this research. Those are PT Indosat Tbk., PT Indofood Sukses Makmur Tbk., PT Bakrie Development., PT Indonesia Air Transport Tbk., PT Surya Semesta Internusa Tbk., PT Apexindo Pratama Duta Tbk., PT Sari Husada Tbk., PT Perusahaan Gas Negara Tbk., PT Bakrie Telecom., PT Davomas Abadi Tbk., PT Ramayana Lestari Sentosa Tbk., PT Metrodata Electronics Tbk., PT AKR Corporindo Tbk., PT Sorini Agro Asia Corporindo Tbk., PT Indofarma Tbk., PT Surya Citra Media Tbk., and PT Tira Austenite Tbk.

3.2. Variables and measurement

This research uses profitability ratio and market value ratio. The proxies are:

$$\text{Return on Asset (ROA)} = \frac{\text{net income}}{\text{total asset}} \quad (1)$$

$$\text{Return on Equity (ROE)} = \frac{\text{net income}}{\text{shareholder's equity}} \quad (2)$$

$$\text{Net Profit Margin (NPM)} = \frac{\text{net income}}{\text{revenue}} \quad (3)$$

$$\text{Earnings per Share (EPS)} = \frac{\text{net income} - \text{dividends on preferred stock}}{\text{average outstanding common shares}} \quad (4)$$

$$\text{Operating Profit Margin (OPM)} = \frac{\text{operating profit}}{\text{sales}} \quad (5)$$

$$\text{Price/Earnings Ratio (PER)} = \frac{\text{market price per share of common stock}}{\text{Earnings per Share (EPS)}} \quad (6)$$

$$\text{Market to Book Value (MBV)} = \frac{\text{market price per share of common stock}}{\text{book value per share of common stock}} \quad (7)$$

$$\text{Dividend Yield (DY)} = \frac{\text{annual dividend per share}}{\text{stock price per share}} \quad (8)$$

3.3. Normality Test, Paired T-Test, and Wilcoxon Signed Rank

The author use Kolmogrov-Smirnov to test the normality for this research. In this test, there is 5% of significant level set as indicator ($\alpha = 0.05$). If the resulting p-value is above the significant level means the data is normal distribution and vice versa. The hypothesis testing for the normal distribution data is Paired Samples T-Test which has a function to compare the relation of before and after events (non-independent samples). They hypothesis are $H_0 =$ there is no significant difference of financial performance between before-after ESOP treatment upon a company ($\mu_d = 0$) and $H_1 =$ there is significant difference of financial performance between

before-after ESOP treatment upon a company ($\mu_d \neq 0$). Hypothesis testing for not normally distributed data is using Wilcoxon Signed Rank Test which is calculated using the same criteria as the Paired Samples T-Test.

4. Data Analysis

4.1. Normality test result

Table I. KS Normality Test Result

Normality Test				
	ROA before	Normality	ROA after	Normality
P-value	0.179	+	0.179	+
	ROE before		ROE after	
P-value	0.001	-	0.125	+
	NPM before		NPM after	
P-value	0.091	+	0.031	-
	EPS before		EPS after	
P-value	0	-	0.152	+
	OPM before		OPM after	
P-value	0	-	0	-
	PER before		PER after	
P-value	0.183	+	0.013	-
	PBV before		PBV after	
P-value	0.285	+	0.014	-
	DY before		DY after	
P-value	0.001	-	0	-

Source: Data results from SPSS process

Table I shows that ROA must proceed with paired t-test while the rest must proceed with wilcoxon signed rank.

4.2. Statistical hypothesis testing

Table II. KS Normality Test Result

Proxy	Type of testing	Resulted P-value	Interpretation
ROA	Paired t-test	0.515	No significant difference
ROE	Wilcoxon Signed Rank	0.739	No significant difference
NPM	Wilcoxon Signed Rank	0.816	No significant difference
EPS	Wilcoxon Signed Rank	0.016	There is significant difference
OPM	Wilcoxon Signed Rank	0.278	No significant difference
PER	Wilcoxon Signed Rank	0.118	No significant difference
PBV	Wilcoxon Signed Rank	0.003	There is significant difference
DY	Wilcoxon Signed Rank	0.086	No significant difference

Source: Data results from SPSS process

As shown on Table II regarding the statistical hypothesis testing analysis, there are only EPS and PBV that accept the H_1 as to indicate a significant difference in the form of company performance before and after the application of ESOP. In brief, for each profitability and market value ratio, there is one proxy that responds to ESOP implementation. From profitability ratio, EPS p-value result is 0.016 which is lower than 0.05 (significant level) and interpret a significant difference in before-after condition. From market value ratio, PBV p-value result is 0.003 which also lower than 0.05 and so interpret the same as EPS.

Table III. Descriptive Statistics of EPS

	N	Mean	Std. Deviation	Minimum	Maximum
EPSbefore	34	368.2353	1041.61565	-870.00	5579.00
EPSafter	34	79.6297	105.57388	-42.00	417.00

Source: Data results from SPSS process

From Table III, it can be seen that EPS in the pretest has higher mean than the post test. By that definition, ESOP is not an effective program that in result decreases the number of EPS in a company.

Table IV. Descriptive Statistics of PBV

	N	Mean	Std. Deviation	Minimum	Maximum
PBVbefore	34	1.1576	1.01770	-.73	4.04
PBVafter	34	2.2085	2.09407	.29	9.44

Source: Data results from SPSS process

From Table IV, it can be seen that PBV in the pretest has lower mean than the post test. By that definition, ESOP is an effective program that successfully increases the number of PBV in a company.

4.3. Result discussion

From the previous analysis, found that ESOP contribute a significant different to two variables of company performance; negatively affect Earning per Share (EPS) and positively affect Price to Book Value (PBV). When EPS shows significant difference, the result should be the same with ROA, ROE, and NPM because four of them require net income. Short term period is the best way to explain this, by meaning that the result is limited to short period (Maharani, 2010; Pugh et al, 2005) and if the time is extended than it may generate different result.

The variables that are influenced by ESOP are net income and average number of common share outstanding with each variable contains many possibilities to influence EPS movement either to grow or decline. The cause and effect of each variable explain in the table below

Table V. Factors which Negatively Influence EPS

Cause		Effect
Net income -	Number of common share ↑	EPS ↓
Net income ↓	Number of common share ↑	EPS ↓
Net income ↓	Number of common share -	EPS ↓
% ↓Net income > % ↓Number of common share		EPS ↓
% ↑Number of common share > % ↑Net income		EPS ↓

Source: Author analysis

Table V clearly explains that number of common share outstanding has negative correlation with EPS while net income has positive correlation with EPS, which could explain why EPS decreases after ESOP adoption. The case is experienced by PT Indosat Tbk in 2004 when the net profit decreased because the number of outstanding common share for ESOP (through B shares) significantly increased as from 10,355,000 B shares in 2003; 5,1775,000 B shares in 2004; and 5,287,116 B shares in 2005. This event was getting worse because the liabilities also increased. There is big possibility that when companies adopt ESOP they issued excessive number of shares for ESOP or it can also be about the failure of ESOP to motivate the employees and increase number of sales that in the end the net income decreases.

The other ratio that influenced by ESOP is PBV. PBV can be formulated into market price per share of common stock divided by book value per share of common stock. Book value of common stock can be considered as the total amount common stock equity in balance sheet divided by number of shares of common stock outstanding.

Table VI. Factors which Positively Influence PBV

Cause		Effect
Market Price ↑	Book value per share -	PBV ↑
Market Price -	Book value per share ↓	PBV ↑
Market Price ↑	Book value per share ↓	PBV ↑
% ↑ Market Price > % ↑ Book value per share		PBV ↑
% ↓ Book value per share > % ↓ Market Price		PBV ↑

Source: Author analysis

According to Table VI, number of common share outstanding has negative correlation with EPS while net income has positive correlation with EPS, which could explain why EPS decreases after ESOP adoption. Based on earlier research by Pratiwi and Ulupui (2013), when companies announce that they adopt ESOP, it will affect positively in market reaction including the investors by mean that ESOP is good news. In other words, when companies announce that they adopt ESOP, the market price of those companies will increase. Moreover, the proportion number of ESOP that is issued also affects the investors' decision making to invest in the company. The higher the number of ESOP proportion issued the stronger the invention of investors to invest within the company. The more investments flow in to the company, than it will directly and positively affect the number outstanding of common share.

5. Conclusion

5.1. Conclusion

According to the result of paired t-test of this research, there are significant differences in Earnings per Share and Price to Book Value. By implementing ESOP, Indonesian companies can leverage their PBV but in contrary a decreasing EPS. By which this research found a relevant phenomenon when PT Indosat Tbk issued excessive B shares for ESOP and turn out a huge decreasing in net income. Basically, EPS can drop to certain level because of reduction in net income and/or increase in average outstanding common share. Meanwhile, this research agrees with Pratiwi and Ulupui (2003) by which ESOP can leverage the market price and influence the investor's decision to invest upon companies that simultaneously increase the number of outstanding common share. Although ESOP affects EPS and PBV, it does not literally mean that it is the one and only factor as company's performance is a subject with high volatility (Thompson, 2003). However, further research to determine the correlation between EPS and PBV is needed.

5.2. Recommendation

- Recommendation for Indonesian companies:

Applying ESOP has its own risk because it can positively affect PBV but negatively affect EPS. In detail, ESOP only gives small positive impact to PBV but causes huge negative impact to EPS. Thus, companies should set up the system wisely by focusing on net income, outstanding common share, market price, and book value per share.

- Recommendation for investors:

Investing in company that adopts ESOP can generate abnormal return, which is like the two sides of coins, can be good and bad. It is because ESOP has not been well structured under Indonesian laws and regulations. Therefore, it would be wise for not taking ESOP as the only judgement before making an investing decision.

6. References

- [1] Amato, F. A. (2000). Employee Stock Ownership. *ACA News*, 43 (2).
- [2] Badan Pengawas Pasar Modal (Tim Studi Penerapan ESOP). (2002). Studi tentang Penerapan ESOP (Employee Stock Ownership Program) Emiten atau Perusahaan Publik di Pasar Modal Indonesia. *Departemen Keuangan Republik Indonesia*.
- [3] Blasi, J., Conte, M., Kruse, D. (1996). Employee Stock Ownership and Corporate Performance among Public Companies. *Industrial and Labor Relation Review*. 50 (1).
<http://dx.doi.org/10.2307/2524389>
- [4] Bergstein, W. M., Williams, W. (2013). The Benefit of Employee Stock Ownership Plans. *The CPA Journal*. 83 (4).

- [5] Clark, R. W., Philippatos, G. C. (1998). Employee Stock Ownership Plans (ESOPs): An International Comparison and Analysis. *Managerial Finance*, 24 (4).
<http://dx.doi.org/10.1108/03074359810765453>
- [6] Gitman, L., & Zutter, C. J. (2012). *Principles of Managerial Finance 13th edition*. England: Pearson.
- [7] Jonas, D. C., Kato, T. (1993). The Scope, Nature, and Effect of Employee Stock Ownership Plans in Japan. *Industrial and Labor Relations Review*, 46 (2).
<http://dx.doi.org/10.2307/2524877>
- [8] Klein, K. J. (1987). Employee Stock Ownership and Employees Attitudes: A test of three models. *Journal of Applied Psychology*, 72, 319-332.
<http://dx.doi.org/10.1037/0021-9010.72.2.319>
- [9] Kozlowski, M. (2013). Employee Participation in Profit and Ownership – Impact on Work Efficiency. *Comparative Economic Research*, 16 (1).
<http://dx.doi.org/10.2478/cer-2013-0005>
- [10] Kunkel, J. G., Lau, C. T. (1995). Does Employee Stock Ownership Translate into Higher Company Profit?. *Business Forum*, 20 (3, 4).
- [11] Lin, A. (2012). Employee Stock Ownership and Employee Psychological Ownership: The Moderating Role of Individual Characteristic. *The Business and Management Review*, 2 (2).
- [12] Pandansari, G. M. (2010). Analisis Perbandingan Kinerja Perusahaan Sebelum dan Sesudah Mengadakan Employee Stock Ownership Program (ESOP) dengan Perusahaan yang Tidak Mengadakan ESOP. Surakarta: Universitas Sebelas Maret.
- [13] Park, S., Song, M. H. (1995). "Employee Stock Ownership Plans, Firms Performance, and Monitoring by Outside Blockholders. *Financial Management*, 24 (4), 52-65.
<http://dx.doi.org/10.2307/3665950>
- [14] Pierce, J. L., Kostova, T., & Dirks, K. T. (2001). Toward a theory of psychological ownership in organization. *Academy of Management Review*, 26, 298-310.
<http://dx.doi.org/10.5465/AMR.2001.4378028>
- [15] Pratiwi, I. A. I. V., Ulupui, I. G. K. A. (2013). Reaksi Pasar di Sekitar Peristiwa Pengumuman ESOP dan Pengaruhnya Terhadap Abnormal Return. Bali: Universitas Udayana.
- [16] Pugh, W. N., Oswald S. L., and Jahera J. S. The Effect of ESOP adoptions on Corporate Performance: Are There Really Performance Change?. *Journal of Managerial and Economic*, 2, 167-180.
- [17] Sanjaya, I. P. S. (2012). Employee Stock Ownership Program Phenomena on Public Companies in Indonesia. *Global Conference on Business & Finance Proceedings*, 7 (1).
- [18] Spencer, C. D. (1992). Research Studies Link between Employee Ownership and Corporate Performance. *Employee Benefit Plan Review*, 47 (1).
- [19] Thompson, P. B. (2003). Leader Values, the Structure of Employee Ownership Plans, and Organizational Outcomes. *ProQuest*, 54-103.