

**EDUCATION VERSUS EXPERIENCE: WHICH MATTERS MORE FOR
INDONESIAN BANK DIRECTORS?**

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ABSTRACT

The purpose of this paper is to assess the effects of board of directors' education and experience on firm financial performance. Based on the cross-sectional analysis of 30 publicly-listed Indonesian banks, it is found that both directors' education and experience positively influence bank profitability, measured with Return on Assets ratio. The results of this study support Hambrick and Mason's Upper-Echelon theory. Based on the research findings, Indonesian banks are recommended to take experience and education into account when organizing board members—with more emphasis on the former due to the more significant impact it has. Furthermore, banks should also be encouraged to invest more in their human capital by facilitating further education of their board members.

Keywords: *Board Of Directors, Education, Experience, Firm Performance, Upper Echelon*

1. INTRODUCTION

The Board of Directors is a crucial element to a firm. It comprises a set of actors that oversees the daily operations of a firm and its composition, therefore, has to be tailored accordingly for a firm to achieve its objectives. The Upper-Echelon theory, as developed by Hambrick and Mason (1984), states that managerial background characteristics predict organizational outcomes. When shareholders are in the process of appointing their top managers, they must put emphasis on the qualifications of the candidates because quality agents are needed to perform efficient and effective decision-making.

Upper Echelon characteristics include age, career experience, education, and financial position. Earlier studies have highlighted the importance of directors' education on firm performance (Phan, 2016; Darmadi, 2013), proving that education is a proxy for a director's competence in decision-making.

Experience has also been found to positively affect firm performance (Reguera-Alvarado and Bravo, 2017; Balsmeier and Czarnitzki, 2014; Shiah-Hou and Cheng; 2012). The amount of time being spent in a specific industry is associated with more expertise. However, it is shown by Gantenbein and Volonte (2011) that education and business experience can have a negative effect on a firm.

Based on the research gap and given introduction, this paper aims to assess the effects of directors' experience and education on Indonesian bank performance and analyze whether one explanatory variable is more impactful than the other.

2. LITERATURE REVIEW

Education and firm financial performance

According to Hambrick and Mason (1984), education is a measure of a person's knowledge, skill base, and cognitive skills, which are the essential qualifications of a human capital. Darmadi (2013) provides empirical evidence that educational qualifications of directors determine profitability and firm value. As education level increases, an individual becomes more focused and specialized in his or her field. This can be achieved by pursuing postgraduate education. King, Srivastav, and Williams (2016) have also found that banks that are led by CEOs with MBA degrees outperform their peers. This indicates that higher level of education not only signifies higher competence in company management, but also increases the probability of sustaining competitive advantage in the industry. Therefore, this study predicts:

H1: Master's education positively influences financial performance

Experience and firm financial performance

One of the aspects of Hambrick and Mason's Upper Echelon theory is experience. Experience signifies expertise and it is nevertheless educational. Phan (2016), in his assessment of board of director's education on firm performance, even suggests that experience might be a better parameter of a director's competence. This suggestion might arise from the practical nature of experience, compared to the theoretical and textbook approach of formal education.

Shiah-Hou and Cheng (2012) found that experience of outside directors positively affect firm's accounting and market performance. Falato, Li, and Milbourn (2015) also found that more experienced CEOs perform better. Whereas Stimpert, Chesley, and Ostrowitz (2016) selection of insiders and CEOs with more firm-specific experience is associated with significantly higher firm performance. If these aforementioned empirical findings are valid for independent directors and CEOs, then I would like to assess whether it can be generalized for the members of the board.

In summary, directors would be enabled to acquire greater knowledge and expertise with longer period of experience, which would translate to a more strategic decision-making and better firm performance. Based on the review above, the following hypothesis is proposed:

H2: Experience positively influences financial performance

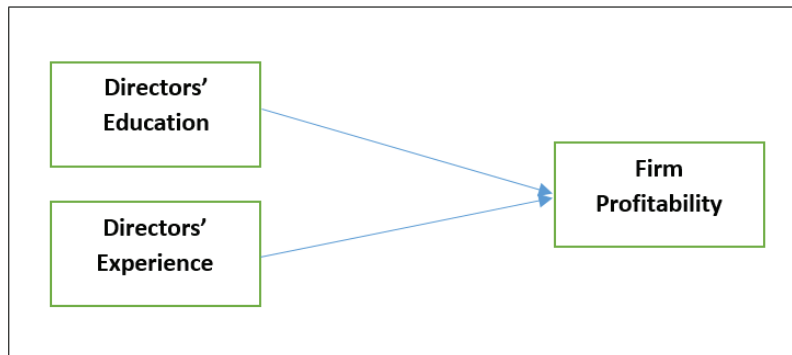


Figure 1. Research Model

3. METHODOLOGY

Cross-sectional OLS was employed to analyze the collected data on EViews software. Cross-section was chosen to ignore the differences that might arise due to time. 30 out of 41 publicly-traded Indonesian banks were observed, whereas the chosen time period was 2015. Data were extracted from company annual reports. Some banks were excluded because the information were not comprehensively available.

The following is the regression equation of this research:

$$ROA_{it} = \alpha_0 + \alpha_1 MASTERS_EDU_{it} + \alpha_2 BOARD_EXP_{it} + \alpha_3 LnSIZE_{it} + \varepsilon_{it}$$

Table 1. Variable Definitions

Variable	Definition
<u>Dependent variable</u>	
Profitability (<i>ROA</i>)	The capability of a firm to generate profit, measured with Return on assets (<i>ROA</i>)
<u>Explanatory variables</u>	
Directors' education (<i>MASTERS_EDU</i>)	Proportion of directors possessing master's degree
Directors' experience (<i>BOARD_EXP</i>)	Average length of banking experience of all board members in the banking industry
Size (<i>LnSIZE</i>)	Natural logarithm of the total assets of the bank

ROA was selected for firm financial performance because it is a profitability ratio that measures a firm's capability to generate return on its available resources.

Firm size, measured with the banks' total assets, was also controlled. This variable was included to eliminate its influence from the equation because the banks were varied in terms of assets.

4. FINDINGS & DISCUSSION

Table 2. Descriptive Statistics

	<i>ROA</i>	<i>MASTERS_EDU</i>	<i>BOARD_EXP</i>	<i>LnSIZE</i>
Mean	1.056667	51.52621	25.96802	16.86733
Median	1.075000	50.00000	25.96667	16.31268
Max	4.190000	100.0000	33.00000	20.62902
Min	-5.010000	0.0000	16.00000	14.54483
Std. Dev.	1.712269	26.0365	3.530110	1.767966
Skewness	-1.343998	0.08886	-0.598733	0.701594
Kurtosis	7.038746	2.121707	3.746175	2.697857
Observations	30	30	30	30

Table 2 presents the descriptive statistics of every research variable. The dependent variable *ROA* averages 1.05%, where Bank Rakyat Indonesia experienced the highest at 4.19%. In terms of size, Bank Mandiri has the highest total assets. Every Bank Tabungan Negara director was also shown to possess master's degree and in contrast, no Bank Nusantara Parahyangan director has obtained postgraduate education. When it comes to industrial

experience, Bank Bumi Artha has the most experienced directors, while MNC Bank has the least.

Prior to running the regression analysis, classical linear regressions assumption tests were also conducted. It can be concluded that this model: (i) is homoscedastic, (ii) is free from multicollinearity, and (iii) has a normally distributed residuals. Refer to Appendices for further clarification.

Table 3. OLS Results

Variable	Expected sign	Coefficient	<i>P-value</i>
C	+/-	-9.681468	0.0010
<i>MASTERS_EDU</i>	+	0.021370	0.0401**
<i>BOARD_EXP</i>	+	0.189106	0.0124**
<i>LnSIZE</i>	+	0.272757	0.0216
R-Squared	0.453625	Adjusted R-Squared	0.390582
Prob (F-Statistic)	0.001135	S.E. of Regression	1.336687
Number of observations	30	Sum squared resid.	46.45504
Dependent variable= ROA Observed variables are in bold letters LnAGE and LnSIZE are control variables.		** corresponds to 5% level of significance The p-values are one-tailed.	

MASTERS_EDU and *BOARD_EXP* are revealed to positively and significantly influence *ROA*, both at 5 per cent level. Therefore, hypotheses 1 and 2 are accepted.

Education level of directors is found to influence a firm's profitability, measured with *ROA*. Higher educational attainment of top executives increase the firm's ability to generate profit and/or utilize its assets. This finding corresponds with King, Srivastav, and Williams (2016), who found that bank CEOs with MBA degrees outdo their peers in the industry. Directors, who have received postgraduate education, may be more informed and intellectually capable to manage their organizations. Enrolling in master's program also expands a person's network, particularly if the program is intended for professionals in similar line of work.

Higher level of education has been associated with more willingness to innovate (Hambrick & Mason, 1984). It can be argued that in order to stay ahead of the competition,

these more-educated directors implement more adaptive and novel methods of business. Decision-making constructed from such methods positively affects the overall performance of the organization.

The length of time a director spends in the banking industry is also revealed to positively affect ROA. This result is in line with Cimerova (2012), Chiliya and Roberts-Lombard (2012) and Falato, Li, and Milbourn (2015). As the descriptive statistics have shown, Indonesian bank directors average 25.9 years of banking experience. It shows that more experienced directors possess better managerial skills accumulated from longer career. Moreover, the directors' familiarity within the environment proves to be beneficial for the organization. The positive effect of experience on firm performance could result from superior expertise arising from longer exposure in the industry: better and faster problem-solving and broader networking.

Furthermore, Table 3 also shows the beta coefficient of *BOARD_EXP* is 8.8 times stronger than *MASTERS_EDU*. Although both explanatory variables are positively significant, *BOARD_EXP* is stronger in determining ROA. It supports the suggestion from Phan (2016) and concludes that Experience is indeed a better parameter than Education for managerial competence. Formal education is designated for the improvement of knowledge, skill, and attitude. However, it is different from actual industrial challenges because students in educational institutions learn in an environment which is free from the real-life consequences one may experience from decision-making in work setting.

5. CONCLUSION

This study finds that both directors' education and experience positively influence firm performance. The findings of this research also support Hambrick and Mason's Upper-Echelon theory. It can be determined that characteristics of top executives affect organizational outcomes, in the case for publicly-traded Indonesian banks. To answer the question raised on the title of this paper: industrial experience matters more than education.

Implications

- Indonesian banks should take both experience and education into account when recruiting or headhunting for directors; focusing more on the former rather than the latter.

- The type of experience that is able to determine organizational performance has to be industry-specific. Experienced directors placed in an industry where they are not experts in, might not be valuable assets to the company.
- Banks are suggested to invest more in their human capital by providing formal education and training. There is room for improvement, considering only an average of 51.5% (refer to Table 2) banks' board of directors have received graduate education.

Limitations

Only banks were observed in this paper. To obtain more generalized results, other industries should also be looked into. In measuring the effects of education, segregating the educational qualifications based on faculty or university rankings might generate compelling results. Furthermore, this has been a quantitative research; further studies should approach education and experience qualitatively. Other variables related to personal management characteristics can also be investigated.

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APPENDICES

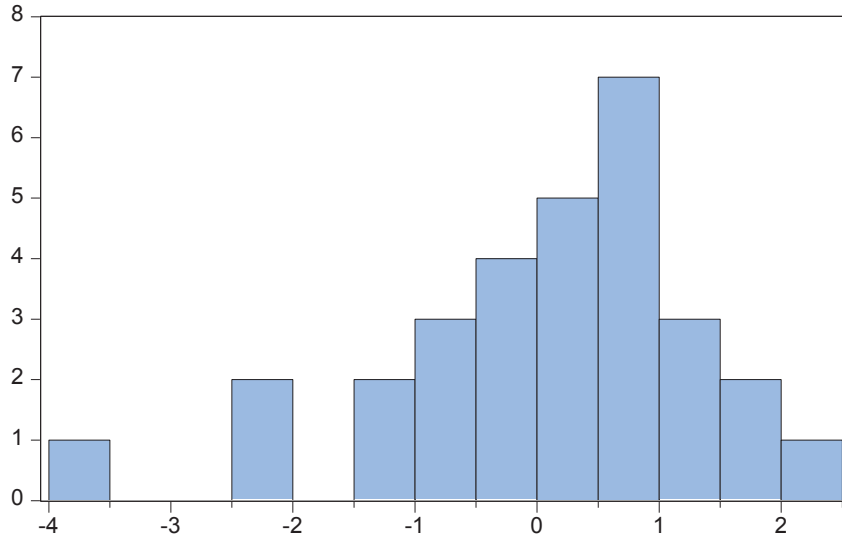
APPENDIX 1 - Breusch-Pagan test for Heteroskedasticity detection

F-statistic	0.863724	Prob. F(3,26)	0.4723
Obs*R-squared	2.718851	Prob. Chi-Square(3)	0.4370
Scaled explained SS	2.915475	Prob. Chi-Square(3)	0.4048

APPENDIX 2 - Variance Inflation Factor computation for multicollinearity detection

Variable	Coefficient Variance	Centered VIF
C	6.800263	NA
EXPERIENCE	0.004948	1.000737
MASTERS_EDU	9.784445	1.076564
LnSIZE	0.012447	1.076169

APPENDIX 3 - Residual statistics for determining normality



Series: Residuals	
Sample 1 30	
Observations 30	
Mean	-9.47e-16
Median	0.102459
Maximum	2.178909
Minimum	-3.596252
Std. Dev.	1.265661
Skewness	-0.873436
Kurtosis	3.855287
Jarque-Bera	4.728847
Probability	0.094003