The Indonesian Capital Market Review

Volume 8
Number 1 *January*

Article 3

1-30-2016

Women in Top Management and Bank Performance: Evidence from Indonesia

Hunik Sri Runing Sawitri
Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia

Wisnu Untoro
Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia

Irwan Trinugroho
Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia, irwan.trinugroho@gmail.com

Indonesian Capital Market Review 8 (2016) 23-31

INDONESIAN
CAPITAL MARKET REVIEW

Women in Top Management and Bank Performance: Evidence from Indonesia

Hunik Sri Runing Sawitri, Wisnu Untoro, Irwan Trinugroho*
Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia

(Received: January 2016 / Revised: February 2016 / Accepted: February 2016 / Available Online: February 2016)

We investigate the impact of the presence of women in top management on bank performance controlling for bank specific factors, ownership and governance. By making use of sample of 70 Indonesian banks in a cross section study, we find strong evidence that the presence of women in the executives is negatively associated with firm performance. Moreover, we examine the moderating effect of TMT organizational tenure and TMT age. However, only little evidence is found in the effect of our moderating variables.

Keywords: *Women; Top Management Team; Performance; Banking; Tenure; Age; Indonesia*

JEL classification: G21; M12

Introduction

It is generally argued that women are perceived less risk taking and less overconfidence than men. Some scholars in the area of behavioral finance have provided empirical evidence (e.g. Barber & Odean, 200; Charness & Gneezy, 2012; Croson & Gneezy, 2009). Charness and Gneezy (2012) provide evidence in their experimental study that women invest less which means they are more financially risk averse than men. Barber and Odean (2001), studying investment behavior of households in common stocks, find that men trade much more than women due to their overconfidence behavior.

Likewise, in the corporate finance literature, it has been widely considered that there are behavior differences between male and female executives in making corporate finance decisions which appear that women tend to behave less risk taking and less aggressive. For instance, Huang and Kisgen (2013) investigate the difference in investment decision made by female and male executives. They conclude that men relatively overconfidence in financial decision compared to women. Higher risk-taking strategy could be associated with higher performance.

However, on the other hand, some studies also provide evidence that the presence of women on top management team leads to better performance for firms. Specifically, Jurkus, Park and Woodard (2011) reveal that the presence of female officers could reduce the agency costs. Adams and Ferreira (2009) find evidence that female directors improve governance of firms. Smith, Smith, and Verner (2007) also reveal that the proportion of women in top management is positively associated with firm performance. At the officer level, Beck, Behr, and Guettler (2013) investigate the performance differences between male and female bank loan officers.

* Corresponding author's email: irwan.trinugroho@gmail.com

They find that loans screened and monitored by female loan officers are less likely to be non-performing compared to those of male officers. They argue that female loan officers may be better in monitoring effort of borrowers.

Strategic management scholars have also studied the behavior differences of women and men on the boards of firms and its impact on corporate performance. Most of them refer to the upper echelons theory (Hambrick & Mason, 1984; Hambrick, 2007; Hermann & Datta, 2005) in which demographic data is used as proxies for managers' experiences, values, dispositions, and beliefs. Gender is supposed to have an impact on the differences in decision making of managers. Some also argue that resource dependent theory could explain the effect of gender diversity on performance as the more diversified the board, the more information could be provided (García-Meca, García-Sánchez, & Martínez-Ferrero, 2015; Smith et al., 2007).

The present paper re-investigates the effect of women on the top management on performance by studying Indonesian banks. Indonesia is an emerging market which its financial development mostly relies on banking as a locomotive due to the capital markets is relatively still underdeveloped (Trinugroho, Agusman, & Tarazi, 2014). Our focus here, however, is to empirically examine the effect of top management diversity, more specifically in gender on performance of banks. As it is argued by Adams and Ferreira (2009), the presence of women on the board creates the dynamic environment which subsequently improves the governance of firm. Moreover, the expectation that the presence of women improves bank performance comes from the fact agency costs are diminished with the greater proportion of women on the boards (Jurkus et al., 2011). However, on the other hand, women presence in the top management team may lead to poor performance as they tend to less risk taking strategy.

We continue the work of Untoro, Angriawan, Trinugroho, and Rahardian(2015) who document that diversification strategy of Indonesian banks are also negatively affected by organization tenure of its board of directors. The longer the tenure of board members it would lead banks become less diversified in their business strategy. Moreover, they find that this negative effect is mitigated by firm's prior performance. We also follow the study of Trinarningsih, Husa, Untoro, Trinugroho, and Sutaryo (2015) in which they contend that the effect of bank diversification strategy on performance depends on the top management characteristics such as education, tenure and age.

Going deeper, we also look at the impact of two moderating variables which are the organizational tenure and average age of top management teams. Arguably, on the one hand, the shorter the organization tenure, it would mitigate the negative effect of women on top management team on performance. On the other hand, it could also be argued that the longer the tenure could reduce the positive impact of gender diversity in TMT on bank performance. Similarly, it is widely considered younger managers tend to take more risk in their decision which subsequently mitigates the negative effect of women in top management on performance. On the contrary, it could also be argued that the older the executives, it could diminish the positive impact of women presence in the top management team on the outcomes.

Literature Review

Gender Diversity and Bank Performance

An extensive body of literature has studied the roleof board (or top management) diversity on firm performance. Some theoretical frameworks have been provided to explain such issue. In the strategic management perspective, upper-echelons theory and resource dependent theory are often used to justify the role of gender diversity or women on board on corporate strategy and performance. The upper-echelons theory claims that firm strategy andorganizational outcomes are reflections of the top managers' demographics characteristics (Untoro et al., 2015). Therefore, firm performance is strongly affected by top management demographic factors. The other perspective comes from the resource-dependent theory in which

https://scholarhub.ui.ac.id/icmr/vol8/iss1/3
DOI: 10.21002/icmr.v8i1.5537

diverse board members could bring more unique information and perspectives (García-Meca et al., 2015).

Smith et al. (2007) and Nielsen and Huse (2010) have provided a summary of literature review on the arguments underlying the effect of board diversity on firm performance. Basically, there are two competing perspectives. The proponents argue thata more heterogeneous directors or managers (with different skills, abilities, knowledge, and information) could be able tomake better decisions due to they have more alternatives. Moreover, diversified board could also be seen as a good signal of customers (Smith et al., 2007). On the other hand, the opposites contend that difficulties in coordinating and decision making as well as potential conflicts may be more experienced in the more heterogeneous boards.

The present paper investigates the effect of diversity in the top management, more specifically gender diversity, on performance. Post and Byron (2015) provide comprehensive views on the effect of women presence on the board or executives. First, taking the upper echelons theory, they argue that female executives tend to bring different cognitive frames for example: having advanced education, having strengthin marketing and sales, and having unique understandings of consumer markets. Second, the presence of women on the board or top management could also influence the process of decision-making. They are more cooperative in decision-making rather than strict to the rules and regulations (Bart & McQueen, 2013). Some previous studies have also provided empirical evidence. For example, Smith et al. (2007), by studying Danish firms, document that the proportion of women in the top management tends to bring positive effects on firm performance. Focusing on banking firms, Pathan and Faff (2013), using data of US bank holding companies, show that gender diversity improves performance but only to some extent; it diminishes after the implementation of Sarbanes-Oxley Act and during the crisis period. Similarly, García-Meca et al. (2015), in a cross country study, empirically examine the effect of board diversity in gender and nationality on bank performance. They do find that gender diversity on the board significantly improves bank performance. However, this effect would be lower in the countries with weaker regulatory environment and investor protection. Those previous studies imply that gender diversity or women presence on the board (or top management) mostly bring positive effect for firm performance.

Research Methods

We re-examine the effect of top management team diversity in gender on bank performance. Moreover, we test the moderating effect of organizational tenure and age in relationship between women on top executives and bank performance. It is a cross-sectional research in which data is collected for single period that is in the year of 2009. Our data is gathered from several sources. The financial information comes from financial reports, while the data on the curriculum vitae of top management team members are taken from the annual reports of banks. It should be noted that Indonesian banking adopts the two tier system in which there are two boards. The board of directors refers to the top management team, while the board of commissioners performs as the supervision (Nam & Nam, 2004; Untoro et al., 2015). In this research, we only use the board of directors (managers) to reflect the top management team.

We use two proxies to represent the presence of women on the top management. First, we use a categorical (dummy) variable (D_WOMEN) taking a value of 1 for firms having female board member and 0 otherwise. Second, we use the proportion of women on the top management team (PROP_WOMEN).

Our dependent variable is bank performance which is measured by the ratio of return on assets (ROA) as well as the ratio of return on equity (ROE). We introduce two moderating variables: 1) the average organizational tenure (TENURE) which is measured as the mean of organization tenure of top management team members and 2) the average age of top management team members (AGE) which is proxied by the mean of age of top management team

members.

We take into account some control variables. First, to control for the ownership issue, we include two variables[1], a dummy for foreign banks (FOB) taking a value of 1 for foreign banks (including joint venture banks) and 0 otherwise. A dummy variable to represent the state-owned banks (SOB) is also included. Second, as some might argue that the banks' performance is affected by how well they govern their banks, we incorporate the ratio of number of independent board ofcommissioner members to total board of commissioner members (PROP_INDEP). An extensive body of literature has discussed the role of independent board members as a corporate governance mechanism (e.g. Anderson & Reeb, 2004; Black & Kim, 2012). Independent board members could be considered to represent the interests of minority (public). Its presence could prevent insider self-dealing which subsequently could improve firm performance (Liu, Miletkov, Wei, & Yang,2015). Finally, the natural logarithm of total assets (LN_ASSET) is involved in our model to account for the difference performance between large and small banks.

The empirical models to be estimated using ordinary least square (OLS) are presented as follows:

$$ROA_i = \alpha_0 + \alpha_1 D\_WOMEN_i + \alpha_2 FOB_i + \alpha_3 SOB_i + \alpha_4 PROP\_INDEP_i + \alpha_5 LN\_ASSETS_i + \varepsilon_{i,t} \quad (1)$$

$$ROA_i = \alpha_0 + \alpha_1 PROP\_WOMEN_i + \alpha_2 FOB_i + \alpha_3 SOB_i + \alpha_4 PROP\_INDEP_i + \alpha_5 LN\_ASSETS_i + \varepsilon_{i,t} \quad (2)$$

$$ROE_i = \alpha_0 + \alpha_1 D\_WOMEN_i + \alpha_2 FOB_i + \alpha_3 SOB_i + \alpha_4 PROP\_INDEP_i + \alpha_5 LN\_ASSETS_i + \varepsilon_{i,t} \quad (3)$$

$$ROE_i = \alpha_0 + \alpha_1 PROP\_WOMEN_i + \alpha_2 FOB_i + \alpha_3 SOB_i + \alpha_4 PROP\_INDEP_i + \alpha_5 LN\_ASSETS_i + \varepsilon_{i,t} \quad (4)$$

$$ROA_i = \alpha_0 + \alpha_1 D\_WOMEN_i + \alpha_2 FOB_i + \alpha_3 SOB_i + \alpha_4 PROP\_INDEP_i + \alpha_5 LN\_ASETS_i + \alpha_6 TENURE_i + \alpha_7 AGE_i + \alpha_8 D\_WOMEN*TENURE_i + \alpha_9 D\_WOMEN*AGE_i + \varepsilon_{i,t} \quad (5)$$

$$ROA_i = \alpha_0 + \alpha_1 PROP\_WOMEN_i + \alpha_2 FOB_i + \alpha_3 SOB_i + \alpha_4 PROP\_INDEP_i + \alpha_5 LN\_ASSETS_i + \alpha_6 TENURE_i + \alpha_7 AGE_i + \alpha_8 PROP\_WOMEN*TENURE_i + \alpha_9 PROP\_WOMEN*AGE_i + \varepsilon_{i,t} \quad (6)$$

$$ROE_i = \alpha_0 + \alpha_1 D\_WOMEN_i + \alpha_2 FOB_i + \alpha_3 SOB_i + \alpha_4 PROP\_INDEP_i + \alpha_5 LN\_ASSETS_i + \alpha_6 TENURE_i + \alpha_7 AGE_i + \alpha_8 D\_WOMEN*TENURE_i + \alpha_9 D\_WOMEN*AGE_i + \varepsilon_{i,t} \quad (7)$$

$$ROE_i = \alpha_0 + \alpha_1 PROP\_WOMEN_i + \alpha_2 FOB_i + \alpha_3 SOB_i + \alpha_4 PROP\_INDEP_i + \alpha_5 LN\_ASSETS_i + \alpha_6 TENURE_i + \alpha_7 AGE_i + \alpha_8 PROP\_WOMEN*TENURE_i + \alpha_9 PROP\_WOMEN*AGE_i + \varepsilon_{i,t} \quad (8)$$

Equations 1 – 4 are employed to test the regressions without moderating variables. We introduce our moderating variables in the equations 5 – 8. D_WOMEN*TENURE and D_WOMEN*AGE are the interactions of D_WOMEN with TENURE and AGE, respectively. While, PROP_WOMEN*TENURE and PROP_WOMEN*AGE stands for the interactions of PROP_WOMEN with TENURE and AGE, respectively. We do not include the dummy for women in top management team and the proportion of women in the top management team concurrently as these two variables are strongly correlated.

Results and Discussions

Descriptive Statistics and Correlation

Table 1 exhibits the descriptive statistics of variables. The average return on assets and return on equity are 2.8% and 19%. 47.1% of banks have women in their top management team; however, the average proportion of women in the executives is only 11.3%. Foreign banks in our sample account for 12.9%, while 42.9% of

[1] There are three kinds of banks in Indonesia based on ownership structure. First, state-owned banks (including regional development banks) are controlled by central government (regional government). The second one is foreign banks (including joint venture banks). The last one is domestic-private banks. In this paper, as we use two dummy variables to represent state-owned banks and foreign banks, domestic-private banks are the benchmark.

https://scholarhub.ui.ac.id/icmr/vol8/iss1/3
DOI: 10.21002/icmr.v8i1.5537

Table 1. Descriptive Statistics of Variables

This table exhibits the descriptive statistics of variables. ROA is the ratio of return on assets. ROE is the ratio of return on equity. D_WOMEN is a dummy variable taking a value of 1 for firms having female board member and 0 otherwise. PROP_WOMEN is the proportion of women on the top management team. FOB is a dummy variable for foreign banks. SOB is a dummy variable for state-owned banks. PROP_INDEP is the ratio of number of independent board of commissioner members to total board of commissioner members. LN_ASSETS is the natural logarithm of total assets. TENURE is the average organization tenure of top management team members. AGE is the mean of age of top management team members.

	ROA	ROE	D_ WOMEN	PROP_ WOMEN	FOB	SOB	PROP_ INDEP	LN_ ASSET	TENURE	AGE
Mean	0.028	0.190	0.471	0.113	0.129	0.429	0.416	16.040	11.965	51.084
Median	0.026	0.179	0.000	0.000	0.000	0.000	0.500	16.000	9.500	51.000
Maximum	0.075	0.473	1.000	0.400	1.000	1.000	1.000	19.829	29.000	56.200
Minimum	-0.006	-0.098	0.000	0.000	0.000	0.000	0.000	12.914	0.000	42.667
Std. Dev.	0.018	0.124	0.503	0.136	0.337	0.498	0.266	1.559	8.735	3.049
Skewness	0.437	0.252	0.114	0.706	2.219	0.289	-0.337	0.598	0.517	-0.501

Table 2. Correlation Matrix of Variables

This table exhibits the descriptive statistics of variables. ROA is the ratio of return on assets. ROE is the ratio of return on equity. D_WOMEN is a dummy variable taking a value of 1 for firms having female board member and 0 otherwise. PROP_WOMEN is the proportion of women on the top management team. FOB is a dummy variable for foreign banks. SOB is a dummy variable for state-owned banks. PROP_INDEP is the ratio of number of independent board of commissioner members to total board of commissioner members. LN_ASSETS is the natural logarithm of total assets. TENURE is the average organization tenure of top management team members. AGE is the mean of age of top management team members.

	ROA	ROE	D_ WOMEN	PROP_ WOMEN	FOB	SOB	PROP_ INDEP	LN_ ASSET	TENURE	AGE
ROA	1.000									
ROE	0.765	1.000								
D_WOMEN	-0.500	-0.518	1.000							
PROP_WOMEN	-0.451	-0.514	0.886	1.000						
FOB	-0.070	-0.320	0.150	0.226	1.000					
SOB	0.567	0.713	-0.587	-0.569	-0.333	1.000				
PROP_INDEP	-0.158	-0.054	0.005	-0.087	-0.042	-0.034	1.000			
LN_ASSET	0.005	0.143	0.211	-0.013	0.006	0.054	0.080	1.000		
TENURE	0.404	0.570	-0.399	-0.372	-0.377	0.627	-0.074	-0.140	1.000	
AGE	0.109	0.386	-0.177	-0.167	-0.341	0.429	-0.027	0.096	0.280	1.000

our observations are state-owned banks. The average proportion of independent members on the board of commissioners is 41.6% which is more than the requirement of the regulator (33%). Average tenure of top management team members is 11.96 years, while the average of age is 51.08 years.

Going deeper, we look at the characteristics of women in the top management in our sample. As for the foreign and state-owned banks, most of female executives are professionalhaving extensive experiences in financial and or non-financial industries. In the private domestic banks, some of female executives are member of families which are the controlling shareholders of the banks.

Table 2 presents the correlation matrix of variables. Both the dummy of women in the TMT and the proportion of women in the TMT are negatively and significantly correlated with return on assets as well as with return on equity. The correlation between state-owned banks and performance (ROA and ROE) are positive and significant. Organizational tenure is positively correlated with bank performance. Likewise, average age of TMT members is positively associated with ROA and ROE. Surprisingly, the proportion of independent members of board commissioners is found to have negative correlation with bank performance.

Regression Results

Table 3 presents the basic regression results. Column 1 and 2 are regression results for ROA (equation 1 and 2), while column 1 and 2 are regression results for ROE (equation 3 and 4). In line with those presented in the correlation matrix, our empirical results find strong evidence that banks having women on their top manage-

Table 3. Regression Results

This table presents the basic regression results. ROA is the ratio of return on assets. ROE is the ratio of return on equity. D_WOMEN is a dummy variable taking a value of 1 for firms having female board member and 0 otherwise. PROP_WOMEN is the proportion of women on the top management team. TENURE is the average organization tenure of top management team members. FOB is a dummy variable for foreign banks. SOB is a dummy variable for state-owned banks. PROP_INDEP is the ratio of number of independent board of commissioner members to total board of commissioner members. LN_ASSETS is the natural logarithm of total assets. TENURE is the average organization tenure of top management team members. AGE is the mean of age of top management team members. The values in parentheses are t-statistics. *, ** and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	ROA		ROE	
	1	2	3	4
D_WOMEN	-0.009**		-0.052**	
	(-2.141)		(-2.032)	
PROP_WOMEN		-0.016*		-0.137
		(-1.843)		(-1.484)
FOB	0.005	0.007	-0.030	-0.023
	(1.061)	(1.281)	(-0.942)	(-0.714)
SOB	0.015***	0.017***	0.144***	0.156***
	(3.376)	(3.870)	(5.336)	(6.051)
PROP_INDEP	-0.009	-0.010	-0.029	-0.036
	(-1.444)	(-1.556)	(-0.824)	(-0.982)
LN_ASSETS	0.001	-0.000	0.014**	0.011
	(0.475)	(-0.125)	(2.135)	(1.636)
Constant	0.019	0.029	-0.071	-0.023
	(1.068)	(1.576)	(-0.673)	(-0.219)
Method	OLS	OLS	OLS	OLS
Number of Banks	70	70	74	74
AdjR-Squared	0.351	0.339	0.543	0.530

ment team have lower performance (both ROA and ROE) than those without women in the top executives. If we use the second proxy which is the proportion of women in the top management team, the results show negative and significant effect on ROA, but no significant impact on ROE.These results are not similar with most previous studies on this issue (e.g. Smith et al., 2007; Pathan & Faff, 2013; García-Meca et al., 2015). Those prior papers find evidence that women presence or gender diversity in the management (or on the board) bring positive effect on firm performance.

Therefore, this contrary finding of this paper should be interpreted cautiously. Perhaps, the negative effect of women presence in the top management team of bank on performance is driven by the fact that in an emerging country, market for banking is quite large. A huge portion of populations are unserved which therefore still unbanked and underbanked even though such markets are most likely to generate large profit for banks. In turn, it strongly needs more expansion and penetration of commercial banks. Aggressive and risk taking behaviors of bankers are needed in order to lead the bank perform expansively. Female executives are associated with less risky financial decision and strategy (Huang & Kisgen, 2013). Moreover, as argued by Wright and Tellei (1993), demand for white-collarwomen managers in Indonesia is growing significantly and educated women could fill those positions. However, there are some constraints on that issue which come from the cultural value,style of organizational behavior, and the stereotypes regarding women in management.

Table 4 shows the regression results when we introduce our two moderating variables. Column 1 and 2 are regression results for ROA (equation 5 and 6), while column 3 and 4 are regression results for ROE (equation 7 and 8).We only find significant effect of the contingency role of organization tenure on the link between women presence in the executives and performance. The coefficient is negative which means the longer the tenure of top management team in the bank; it exacerbates the negative effect of women presence on performance. Nevertheless, we do not find evidence on the moderating effect of age in the relationship between gender diversity in the management and performance.

https://scholarhub.ui.ac.id/icmr/vol8/iss1/3
DOI: 10.21002/icmr.v8i1.5537

Table 4. Regression Results with Moderating Variables

This table presents the basic regression results with moderating variables. ROA is the ratio of return on assets. ROE is the ratio of return on equity. D_WOMEN is a dummy variable taking a value of 1 for firms having female board member and 0 otherwise. PROP_WOMEN is the proportion of women on the top management team. TENURE is the average organization tenure of top management team members. FOB is a dummy variable for foreign banks. SOB is a dummy variable for state-owned banks. PROP_INDEP is the ratio of number of independent board of commissioner members to total board of commissioner members. LN_ASSETS is the natural logarithm of total assets. TENURE is the average organization tenure of top management team members. AGE is the mean of age of top management team members. D_WOMEN*TENURE and D_WOMEN*AGE are the interactions of D_WOMEN with TENURE and AGE, respectively. While, PROP_WOMEN*TENURE and PROP_WOMEN*AGE stands for the interactions of PROP_WOMEN with TENURE and AGE, respectively. The values in parentheses are t-statistics. *, ** and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	ROA		ROE	
	1	2	3	4
D_WOMEN	-0.036		0.131	
	(-0.579)		(0.392)	
PROP_WOMEN		0.003		1.173
		(0.015)		(0.865)
FOB	0.005	0.006	-0.013	-0.013
	(0.884)	(1.023)	(-0.414)	(-0.394)
SOB	0.015**	0.016***	0.101***	0.111***
	(2.658)	(2.945)	(3.227)	(3.603)
PROP_INDEP	-0.009	-0.009	-0.014	-0.017
	(-1.378)	(-1.373)	(-0.399)	(-0.500)
LN_ASSETS	0.001	0.00006	-0.016**	0.010
	(0.673)	(0.051)	(2.352)	(1.595)
TENURE	0.000	0.000	0.004**	0.004**
	(0.860)	(0.929)	(2.608)	(2.499)
AGE	-0.001	-0.001	0.005	0.006
	(-1.132)	(-0.747)	(1.059)	(1.310)
D_WOMEN*TENURE	-0.000		-0.005*	
	(-0.338)		(-1.964)	
D_WOMEN*AGE	0.001		-0.002	
	(0.451)		(-0.377)	
PROP_WOMEN*TENURE		-0.001		-0.022*
		(-0.565)		(-1.979)
PROP_WOMEN*AGE		-0.000		-0.021
		(-0.083)		(-0.808)
Constant	0.062	0.054	-0.405	-0.382
	(1.312)	(1.222)	(1.540)	(-1.545)
Method	OLS	OLS	OLS	OLS
Number of Banks	70	70	74	74
R-Squared	0.332	0.319	0.574	0.565

Results of our control variables show that state-owned banks have higher financial performance than other banks. This result is consistent in all models. It is in line with the findings of Nys et al. (2015) and Sutopo and Trinugroho (2015) that state-owned banks may have some advantages of their position especially to collect funding with lower cost which subsequently improve their performance. It may also confirm our argument on the negative effect of women directors on performance. State-owned banks typically enjoy "quite life" in an emerging market as they have higher market power due to the large unserved markets. Little evidence is found that performance of large banks is higher than small banks. However, we do find significant coefficients for the dummy variable representing foreign banks and the proportion of independent commissioners.

Robustness Checks[2]

To have more confident results, we do some robustness checks. First, we change the dependent variable which is ROA at time t to the ROA at the time t+1 as one may argue that the

[2] Tables of robustness checks are available upon request.

effect of board diversity on performance is for the following period. The result of our main variable remains unchanged. Second, we turn the proxies of bank performance to net interest margins (NIM). Interest margin is the difference between interest rate loans and interest rate on deposits which could reflect the profitability of bank. Again, the effect of women in the top management team on bank performance is negative and significant.

Conclusions

Our empirical results provide robust findings that the presence of women in the top management team is negatively associated with bank performance. We argue that the negative effect may be explained by the specific context of this research. Indonesia is the fourth most populous country and an emerging market, therefore the business expansion of banks to serve the unbanked and underbanked markets which is quite profitable is strongly needed. To do so, it requires aggressive and more confident top management team which is associated with male directors.

We also conclude that organization tenure of top management team exacerbates the negative effect of women executives on performance. However, we do not find evidence that age of top management team members mitigate or strengthen the relationship between women in top management and bank performance.

References

Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics,* 94(2), 291–309.

Anderson, R. C., & Reeb, D. M. (2004). Board composition: Balancing family influence in S&P 500 firms. *Administrative Science Quarterly,* 49, 209-237.

Barber, B. M., & Odean, T. (2001). Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investment. *Quarterly Journal of Economics,* 116, 261-292.

Bart, C., & McQueen, G. (2013). Why women make better decisions. *International Journal of Business Governance and Ethics*, 8, 93–99.

Beck, T., Behr, P., & Guettler, A. (2013). Gender and Banking: Are Women Better Loan Officers?. *Review of Finance,* 17(4), 1279-1321.

Black, B., & Kim, W., (2012). The effect of board structure on firm value: A multiple identification strategies approach using Korean data. *Journal of Financial Economics,* 104, 203–226.

Charness, G., & Gneezy, U. (2012). Strong Evidence for Gender Differences in Risk Taking. *Journal of Economic Behavior & Organization,* 83, 50– 58.

Croson, R., & Gneezy, U. (2009). Gender difference in preferences. *Journal of Economic Literature,* 47 (2), 448–474.

García-Meca, E., García-Sánchez, I-M., & Martínez-Ferrero, J. (2015). Board diversity and its effects on bank performance: An international analysis. *Journal of Banking & Finance,* 53, 202–214

Hambrick, D. C. 2007. Upper echelons theory: An update. *Academy of Management Review*, 32(2), 334-343.

Hambrick, D. C., & Mason, P. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193.

Herrman, P., & Datta, D. K. (2005). Relationships between Top Management Team Characteristics and International Diversification: an Empirical Investigation. *British Journal of Management,* 16, 69–78.

Huang, J., & Kisgen, D. J. (2013). Gender and corporate finance: Are male executives overconfident relative to female executives?. *Journal of Financial Economics,* 108, 822–839.

Jurkus, A. F., Park, J. C., & Woodard, L. S. (2011). Women in top management and agency costs. *Journal of Business Research,* 64, 180–186.

https://scholarhub.ui.ac.id/icmr/vol8/iss1/3
DOI: 10.21002/icmr.v8i1.5537

Liu, Y., Miletkov, M. K., Wei, Z., & Yang, T., (2015). Board independence and firm performance in China. *Journal of Corporate Finance,* 30, 223–244.

Nam, S. W., & Nam, I. C. (2004). *Corporate Governance in Asia: Recent Evidence from Indonesia, Republic of Korea, Malaysia, and Thailand*. Tokyo: Asian Development Bank Institute.

Nielsen, S., & Huse, M. (2010). Women directors' contribution to board decision making and strategic involvement: the role of equality perception. *European Management Review,* 7(1), 16–29.

Post, C., & Byron, K. (2015). Women on boards and firm financial performance: A meta-analysis. *Academy of Management Journal,* 58(5), 1546–1571.

Smith, N., Smith, V., & Verner, M. (2007). Do women in top management affect firm performance? A panel study of 2500 Danish firms. *International Journal of Productivity and Performance Management,* 55(7), 569 – 593.

Sutopo, B., & Trinugroho, I. (2015). Politically Connected Banks: Some Indonesian Evidence. *Working Paper*.

Trinarningsih, W., Husa, P. P., Untoro, W., Trinugroho, I., & Sutaryo, S. (2015). *Diversification and Bank Performance: Do TMT Characteristics Matter?*. Paper presented at the 2015 International Symposium on Social Sciences, Arts, and Humanities.

Trinugroho, I., Agusman, A., & Tarazi, A. (2014). Why have bank interest margins been so high in Indonesia since the 1997/ 1998 financial crisis?. *Research in International Business and Finance* 32, 139-158.

Untoro, W., Angriawan A., Trinugroho, I., & Rahardian, R. (2015). Organizational Tenure and Bank Diversification: A Replication, *Journal of Global Business Advancement,* forthcoming.

Wright, L., & Tellei, V. C. (1993). Women in Management in Indonesia. *International Studies of Management and Organization,* 23(4), 19-45.