



JURNAL

Riset Akuntansi dan Keuangan Indonesia

URL : <http://journals.ums.ac.id/index.php/reaksi/index>



The Presence and Capabilities of Women on Board and Corporate Financial Performance: a Study on Female vs Male-dominated Industry

Widowati Dian Permatasari, Yuli
Tri Cahyono, Atwal Arifin
Program Studi Akuntansi,
Universitas Muhammadiyah
Surakarta, Universitas Indonesia
[*widowati.permatasari@ums.ac.id](mailto:widowati.permatasari@ums.ac.id)

Keywords:

Women on boards, Board
Capabilities, Financial Performance,
Industry Domination

ABSTRACT

The purpose of this study is to determine the effect of the women presence and their capabilities on the companies' financial performance in company listed on the Indonesia Stock Exchange. This study splits the sample into two industry categories based on gender domination which are female and male-dominated industry. Using agency theory, resourced based theory and human capital theory, this study find that the presence of a women on board has a significant positive impact on the company's financial performance as measured on market basis. In addition, their capability - such as education background in economics/business/finance and relevant work experience - have significant positive impact on the company's accounting performance. These results are seen mainly in the entire sample group and the male-dominated sample group.

INTRODUCTION

The governance literature has debated widely about the role played by boards (i.e. directors in a one-tier board system; directors and commissioners in a two-tier board system). In general, researchers recognize that the structure and composition of boards can affect how their tasks are performed and it can determine corporate outcomes (Carter et al., 2010). The diversity of the board depends on the characteristics and expertise of its members, such as gender, age, ethnicity, professional background, education, and industry experience (Singh et al., 2008).

Gender diversity on corporate boards, particularly the appointment of women on corporate boards, has become one of the issues of corporate governance. It has attracted considerable interest from academia, government, policymakers, practitioners, and international organizations (Terjesen et al., 2009; Shahab et al., 2020). One of the reasons is because gender equality as an important aspect of the Sustainable Development Goals (SDGs). This has prompted regulators in several countries to issue guidelines for including women on company boards (Reguera Alvarado et al., 2017). This guideline makes the appointment of women on the board of a company continues to increase from time to time, especially in countries that have introduced the obligation to fulfill gender-based board membership quotas (Lee et al., 2015).

Using data on 7,000 companies in 44 countries, Deloitte (2017) showed that women hold up to 15% of board seats. It increased by 3% from the last report in 2015. Various theoretical bases (such as agency, economic, and social) also support gender diversity. It shows that homogeneity on the board can lead to suboptimal decision-making. It has a negative impact on corporate governance and performance (Abdul et al, 2018; Malagila et al., 2020).

Despite the massive development of research related to gender diversity on company performance, the specific relationship between the two is still not convincing enough to draw a conclusive conclusion. Various recent studies use agency theory and resource dependency theory to provide evidence of a positive relationship between gender diversity on the board and firm performance

(Terjesen et al., 2016; Conyon & He, 2017; Ahmadi et al., 2018). ; Li & Chen, 2018; Moreno Gómez et al., 2018). On the other hand, some literatures reveal contradictory results where there is a negative relationship between gender diversity on firm performance (Boubaker et al., 2014; Shehata et al., 2017; Adusei et al., 2017; Pucheta-Martínez et al., 2018). Even the research of Sanan (2016) and Horvath & Spirollari (2012) failed to show a significant relationship between gender diversity on the board and company performance. Therefore, further exploration of this topic is needed.

The difference in the results of previous studies probably due to several factors. First, previous researchers did not consider differences in gender dominance in the industrial sector of the companies used as research samples. Research related to the effect of board gender diversity on the financial performance of companies is mostly carried out on all non-financial companies in a country (Ramadan & Hasan, 2021) or manufacturing and services (Abbadi et al, 2021), and banking (Jabari & Muhamad, 2020). The results show mixed relationships. Specific research on the male-dominated industry, namely the automotive sector in the construction sector, has been conducted only by Calabrese & Manello (2021) and Arena et al (2015).

The emergence of industrial sectors with certain gender preferences needs to be considered in analyzing the gender diversity of the board on the company's performance. This is because the perception of gender stereotypes and the problem of 'earning gaps' in certain industrial sectors can affect how the role of women on board in carrying out their work optimally. On a global scale, ILO data show that women are mostly involved in the service sector, while other sectors are dominated by men (databox, 2018). This pattern is common in many countries, including Indonesia. Therefore, this research tries to consider the aspect of gender dominance by dividing the industrial sector into two categories, namely female-dominated (service sector) and male-dominated (sector other than services).

Second, the difference in measurement proxies of financial performance can also be the reason for the mixed results in previous studies. To measure a company's financial performance, previous research

generally used two types of measures, namely, accounting-based and market-based performance measures. Accounting-based performance measurement using the proxies of return on assets (ROA), return on equity (ROE), return on capital (ROCE) as in the research of Kılıç & Kuzey (2016) and Ahmadi, Nakaa, & Bouri (2018) still shows mixed results. Other researchers use a market-based measure, namely Tobin's Q (Nguyen, Locke, & Reddy, 2015; Wiley & Monllor-Tormos, 2018) whose results have not yet provided a single vote. This research observes the effect of gender diversity by using the two available measurements carried out on two categories of gender dominance in the industry (female-dominated and male-dominated). Accounting-based financial performance measurements are used to show the company's performance in the short term (short-term) while market-based financial performance measures are used to show the long-run potential and value of the company (Kang et al, 2017).

Finally, this research also adds to the effect of the capability of women boards on the company's financial performance based on human capital theory. The theory explains that the educational background, experience, and skills possessed by individuals (Carter et al 2010) can be utilized to increase the ability to carry out their roles effectively. Hence, in the end, they can improve company performance. Each individual has a unique 'capital'. Thus, it is interesting to examine women 'capital' or capabilities will impact on company performance, especially in the male-dominated industrial sector.

This study aims to analyze the relationship between the presence and capability of women boards on the financial performance of companies listed on the IDX. This research contributes, namely expanding the literature on gender diversity and accounting by providing contexts for different gender dominance industry and human capital. The findings of this research are expected to have implications for the formulation of policies in companies, making regulations at the country level, and the creation of guidelines by international organizations regarding the structure of the board in companies. Aspects of gender diversity need to be considered and the composition adjusted to be able to maximize the company's financial

performance based on the industrial sector in which the company is based.

LITERATURE REVIEW

This research is based on three main theories which are agency theory, resource-based theory, and human capital theory. Agency theory is the most dominant theory used by previous researchers in building the relationship between board gender diversity and company performance (Kilic & Kuzey, 2016). Based on this theory, gender diversity can indicate an effective corporate governance structure, reduce potential agency costs, ensure the fulfillment of the best interests of stakeholders and ultimately improve company performance (Reguera-Alvarado et al., 2017).

Besides agency theory, resource dependence theory also supports claims of a relationship between gender diversity and performance. This theory states that gender diversity in the board structure can increase access to financial capital (Reguera-Alvarado et al, 2017), improve company relationship relationships (Shaukat et al., 2016), and be able to increase company legitimacy and positive image (Kilic & Kuzey, 2016).

The last theory that forms the basis of this research is the theory of human capital. This theory states that educational background provides relevant capital for the implementation of its role (Arena et al., 2015). Referring to the literature on board processes, Petrovic (2008) shows that the educational level of female directors has a particular influence on board dynamics, particularly concerning how women build credibility and legitimacy in male-dominated environments.

Previous literature has shown that companies can relish competitive benefits when women are appointed to the company's board of directors (Ntim, 2015). It shows that the presence of women or the presence of gender diversity on the board has a positive effect on corporate governance. Female boards can provide new perspectives (de Cabo et al., 2011), thus there are more alternative solutions to making corporate decisions (Luckerath-Rovers, 2013). Women who are often considered conservative and risk-averse can limit excessive risk-taking in strategic decisions (Jianakoplos &

Bernasek, 1998) to increase control and prevent the expropriation of shareholders (Selby, 2000). Having women on board can increase a company's compliance with applicable standards of practice (Nekhili & Gatfaoui, 2012) because female directors tend to pay more attention to ethical issues (Rodriguez-Dominguez et al., 2009) and support good governance practices (Labelle et al., 2009).

On the other hand, opponents of the board's gender diversity draw the contrast conclusion. Some researchers argue that gender diversity can increase the likelihood of disagreements and generate conflict among boards (Arena et al., 2015). In this perspective, women on the board are considered to be able to limit board cohesion, hinder the decision-making process and reduce company performance (Adams and Ferreira, 2009). In addition, gender diversity is considered only as tokenism or a symbolic sign so that potential benefits of having a women on board may be limited (Abdullah, 2014). Empirical evidence on companies in the United States reports that the average effect of gender diversity on company performance is negative (Adams and Ferreira, 2009). Other studies have shown a negative relationship between the proportion of women on the board of directors and Tobin's Q, gross profit on sales, and market performance (Dale-Olsen et al., 2013; Ujunwa et al., 2012).

HYPOTHESIS DEVELOPMENT

Although the majority of studies suggest a positive relationship between gender diversity and a firm's financial performance, the relationship may depend on the sector where the firm operates. Abdadi et al (2021) analyzed manufacturing and service firms. They found that board gender diversity had a statistically significant positive impact on Tobin's Q. Calabrese and Manello (2021) demonstrated a strong positive effect of female representation on board members on the performance company, especially the profitability and risk of the company. In contrast, Simionescu et al. (2021) provided evidence of a negative effect of the percentage of female executives on return on assets (ROA).

In industry sectors dominated by men, such as construction, Chan (2013) highlighted that women's

involvement is still limited and generally women only occupy roles with low status and salaries. de Cabo et al. (2011) also empirically showed that the low proportion of female employees in technical industries (eg mining, energy, commodities, and construction industries) reduces the number of women on board. The under-representation of women in male-dominated sectors may be a consequence of the need for skills that women tend to lack. Although many researchers highlight the importance of women's presence on the board, the characteristics of work in a male-dominated environment (eg related to working hours, work location, work commitment) are considered to be less compatible with women's stigma.

Alternatively, sectors that are dominated by women (such as the service sector) have rule and corporate culture that usually adapted to the needs of women. This condition allows women to work productively and continue to develop their careers until they reach top management. The female-dominated sector also allows women's opinions to be considered in decision-making. Women who tend to be careful in making decisions, comply with applicable rules and ethical codes, can ultimately improve company performance.

H1a. Gender diversity on the board of directors has a negative relationship with the company's financial performance in male-dominated industries.

H1b. Gender diversity in the board of directors has a positive relationship with the company's financial performance in the female-dominated industry.

The literature on board capital claims that having the capacity (in the form of education and experience) relevant to the company's needs can be an additional capital for the board and is considered an asset by the company (Barroso et al., 2011). The academic background of the board can affect their cognitive abilities. Thus, it has implications for the implementation of management and supervisory roles. In addition, Certo (2003) explains that the education of board members also affects the prestige of the board, thereby increasing the legitimacy and credibility of the organization. In line with the effect of educational background, work experience in the same sector can provide a broader perspective and make it easier for the board to make strategic company decisions.

In the context of this research, the capacity of women on boards will strengthen their bargaining power that can make their opinions heard. Women's opinions tend to be considered if they have certain capital, one of which is by reaching a certain level of education, having an educational background related to finance/business, and having worked in the same industrial sector before. Women's on board with these capabilities show that they have the credibility and legitimacy to be considered equal to their colleagues. This will create a conducive and dynamic discussion process to provide maximum results in the company's strategic decision-making.

H2. There is a positive relationship between the

capacity of women on boards to the company's financial performance.

RESEARCH METHODS

This current empirical research on all non-financial companies listed on the Indonesia Stock Exchange (IDX) in 2019. Of the total 636 companies listed on the IDX in 2019, 106 financial service companies were excluded. In addition, 7 companies do not issued annual report, resulting in a final sample of 523 companies. Table 1 shows the industry categories used as samples in this research.

Table 1. Research sample by industry and its classification

No.	Industry	Classification*	Number	Percentage
1	Agriculture	Non-services	18	3%
2	Mining	Non-services	48	9%
3	Basic Industry And Chemicals	Non-services	74	14%
4	Miscellaneous Industry	Non-services	48	9%
5	Consumer Goods Industry	Non-services	55	11%
6	Property, Real Estate And Building Construction	Service	73	14%
7	Infrastructure, Utilities And Transportation	Service	72	14%
8	Trade, Services & Investment	Service	135	26%
Total			523	100%

* based on ILO's industry classification

The dependent variable in this research was the company's financial performance, namely, return on assets (ROA) and Tobin's Q. ROA as a proxy for profitability or accounting profit shows the company's performance in the short term that is relevant to company stakeholders. Tobin's Q as a market-based performance proxy shows how companies can create value for shareholders in the long term.

The independent variables in this research were the presence of women on board and their capabilities. The presence of women was measured using the some proxies, namely BOARD_WOMEN_BINARY (equals to one if there is at least one woman on board in a company, otherwise zero), BOARD_WOMEN_NUMBER (number of woman on board), and BOARD_WOMEN_PERCENT (percentage of woman on board divided by the total number of boards in a company). In addition, this study also added a proxy for measuring gender diversity using the Blau index (BOARD_WOMEN_BLAU).

The women board capability variable was measured by four proxies. First, the educational

qualifications (BOARD_WOMEN_EDUC) in the form of the percentage of women board members with the educational qualifications of master and/or PhD divided by the total women board members. Second, the educational background of the women board (BOARD_WOMEN_ECO) which was the number of women board members who have an educational background related to economics/business/finance divided by the total women board members. Third, the experience of the women (BOARD_WOMEN_EXPERT) which was the percentage of the number of women s who had previous work experience in the relevant sector divided by the total number of women members. Fourth, BOARD_WOMEN_DUAL, which is the proportion of women board members who had concurrent positions in other companies.

This research used four control variables, namely board size (BOARD_SIZE) measured by the total number of board members in one company; company size (FIRM_SIZE) measured by the natural log of the company's total assets; Leverage (LEV) measured by total debt divided by total company assets and industry sector (SECTOR)

measured by the grouping of industrial sectors based on the IDX. Performance is measured by the ROA and Tobins' Q proxies. The presence of women on board is represented by the four proxies described previously. Board capacity is measured by the four proxies which have also been described above. The hypothesis testing in this study was carried out using the following equation model:

$$\text{Performance} = \beta_0 + \beta_1 \text{ Women Presence} + \beta_2 \text{ Women Capabilities} + \beta_3 \text{ Control} + \varepsilon$$

RESULT AND DISCUSSION

The samples used in this research were all non-financial companies listed on the Indonesia

Stock Exchange in 2019. The samples collected were 523 companies. To be able to pass all classical assumption tests, 76 observations were outliers. Thus, the final sample of this research of 447 companies. This research grouped 447 sample companies into two categories; female-dominated and male-dominated industries. The female-dominated industry is an industry where the majority of employees are women. According to the International Labor Organization (ILO) website, companies that enter the female-dominated industry are generally service providers. Other industries, such as agriculture, mining, manufacturing, fall into the male-dominated industry category.

Table 2. Descriptive Statistics

Variables	All sample					Female-dominated industry sample					Male-dominated industry sample				
	N	Minimum	Maximum	Mean	Std. Deviation	N	Minimum	Maximum	Mean	Std. Deviation	N	Minimum	Maximum	Mean	Std. Deviation
ROA	447	-0,1532	0,1859	0,0234	0,0555	236	-0,1446	0,1753	0,0208	0,0542	211	-0,1532	0,1859	0,0263	0,0568
TOBINSQ	447	0,2344	3,3231	1,2115	0,6282	236	0,2344	3,3231	1,2361	0,6713	211	0,2633	3,0814	1,1841	0,5765
BOARD_WOMEN_BINARY	447	0,0000	1,0000	0,6443	0,4793	236	0,0000	1,0000	0,7119	0,4539	211	0,0000	1,0000	0,5687	0,4964
BOARD_WOMEN_PERCENT	447	0,0000	0,7500	0,1432	0,1420	236	0,0000	0,7500	0,1699	0,1508	211	0,0000	0,6000	0,1132	0,1252
BOARD_WOMEN_BLAU	447	0,0000	0,5000	0,2051	0,1741	236	0,0000	0,5000	0,2368	0,1743	211	0,0000	0,5000	0,1696	0,1672
BOARD_WOMEN_EDUC	447	0,0000	1,0000	0,2078	0,3661	236	0,0000	1,0000	0,2211	0,3657	211	0,0000	1,0000	0,1930	0,3669
BOARD_WOMEN_ECO	447	0,0000	1,0000	0,3900	0,4455	236	0,0000	1,0000	0,4094	0,4364	211	0,0000	1,0000	0,3683	0,4554
BOARD_WOMEN_EXPERT	447	0,0000	1,0000	0,4118	0,4730	236	0,0000	1,0000	0,4299	0,4744	211	0,0000	1,0000	0,3917	0,4718
BOARD_WOMEN_DUAL	447	0,0000	1,0000	0,2808	0,4196	236	0,0000	1,0000	0,3222	0,4327	211	0,0000	1,0000	0,2344	0,3983
BOARD_SIZE	447	3,0000	22,0000	8,4889	3,3084	236	3,0000	21,0000	8,2203	3,1084	211	4,0000	22,0000	8,7915	3,5016
FIRM_SIZE	447	23,5873	34,3675	28,5752	1,6846	236	23,5873	33,0301	28,4498	1,7238	211	25,0488	34,3675	28,7155	1,6323
LEV	447	0,0161	1,0602	0,4587	0,2202	236	0,0161	1,0602	0,4336	0,2217	211	0,0665	1,0554	0,4987	0,2156
SECTOR	447	1,0000	9,0000	5,5794	2,5398	236	6,0000	9,0000	7,6610	1,3158	211	1,0000	8,0000	3,2512	1,2026

Source: processed secondary data

Table 2 shows descriptive statistical result consisting of the minimum, maximum, average, and standard deviation values of each variable in the equation model used in this research. These descriptive statistics were also categorized into three columns, namely the all sample column, the female-dominated industry sample (consist of 236 service companies), and the male-dominated industry (consist of 211 non-service companies). The table shows that, in general, the average percentage of women board involvement in all sample companies (BOARD_WOMEN_PERCENT) was only around 14%, with a maximum value of 75%. This result was still very low for Indonesia. It has echoed gender diversity in recent years. In the column for female and male-dominated industries, the difference in the average percentage of women board involvement was quite clear where female-dominated industries had an average of 17%, while female and male-dominated were only 11%. The ability of women boards which can be seen from

the variables of educational qualification (BOARD_WOMEN_EDUC), education in economics, (BOARD_WOMEN_ECO), work experience in the same sector (BOARD_WOMEN_EXPERT), and concurrent status in another company (BOARD_WOMEN_DUAL) also looks quite different between the two groups.

Table 3 describes the relationship between variables that would be used in this research using Pearson's correlation. From the table above, it can be seen that the dependent variable ROA had a significant correlation with three of the four control variables. Yet, it only had a significant positive correlation with the capability of women's related to education in the economic field. The women on board proxied, namely the percentage and Blau index, were negatively correlated in the entire sample group and the female-dominated sample. The same proxy had a positive correlation in the male-dominated sample group. In addition, the board capability variable generally had a positive

correlation with the ROA variable. However, in the male-dominated group, the variables of educational qualification and multiple positions were negatively correlated with ROA. Across the sample groups, duality or multiple positions on

women boards members is negatively correlated with the dependent variable Tobins'Q. This indicated that the market may have a negative perception of female boards who had multiple positions in other companies.

Tabel 3. Pearson Correlation

Sample	Variables	ROA	TOBINSQ	BOARD_WOMEN_BINARY	BOARD_WOMEN_PERCENT	BOARD_WOMEN_BLAU	BOARD_WOMEN_EDUC	BOARD_WOMEN_ECO	BOARD_WOMEN_EXPERT	BOARD_WOMEN_DUAL	BOARD_SIZE	SECTOR	FIRM_SIZE	LEV
All	ROA	1												
	TOBINSQ	.283**	1											
	BOARD WOMEN BINARY	0,033	0,043	1										
	BOARD WOMEN PERCENT	-0,017	0,074	.750**	1									
	BOARD WOMEN BLAU	-0,017	0,027	.877**	.950**	1								
	BOARD WOMEN EDUC	0,024	-0,039	.422**	.219**	.293**	1							
	BOARD WOMEN ECO	.093	0,012	.651**	.480**	.569**	.397**	1						
	BOARD WOMEN EXPERT	0,084	0,031	.648**	.488**	.570**	.363**	.540**	1					
	BOARD WOMEN DUAL	0,026	-0,042	.489**	.348**	.422**	.312**	.374**	.394**	1				
	BOARD SIZE	.107	-0,003	0,013	-.121	-.114	-.193	-0,010	-.102	0,086	1			
	SECTOR	0,014	.136**	.179**	.226**	.226**	0,041	0,046	0,063	0,033	-.131**	1		
	FIRM SIZE	.121	-.096	-.108	-.244**	-.226**	.127	-0,062	-0,002	0,043	.561**	-.188**	1	
	LEV	-.356**	-0,040	-0,076	-.123**	-.101	-0,001	-0,052	-0,048	-0,086	0,073	-.113	.258**	1
Female	ROA	1												
	TOBINSQ	.239**	1											
	BOARD WOMEN BINARY	0,010	0,049	1										
	BOARD WOMEN PERCENT	-0,027	0,032	.719**	1									
	BOARD WOMEN BLAU	-0,032	0,077	.866**	.936**	1								
	BOARD WOMEN EDUC	0,062	0,019	.385**	.208**	.282**	1							
	BOARD WOMEN ECO	0,077	0,044	.598**	.436**	.531**	.406**	1						
	BOARD WOMEN EXPERT	0,031	0,049	.578**	.481**	.547**	.290**	.434**	1					
	BOARD WOMEN DUAL	0,073	-0,039	.475**	.306**	.391**	.268**	.345**	.336**	1				
	BOARD SIZE	0,112	0,033	0,063	-0,031	-0,034	.208**	0,043	.151	0,067	1			
	SECTOR	0,094	.260**	0,014	-0,010	0,000	0,022	-0,033	-0,002	-.162	-0,114	1		
	FIRM SIZE	.142	-.136**	-0,026	-.176**	-.133	.137	0,011	0,108	0,071	.598**	-.226**	1	
	LEV	-.300**	-0,039	-0,044	-0,126	-0,092	0,000	-0,032	0,012	-0,094	.135	0,043	.308**	1
Male	ROA	1												
	TOBINSQ	.346**	1											
	BOARD WOMEN BINARY	0,073	0,024	1										
	BOARD WOMEN PERCENT	0,017	0,091	.789**	1									
	BOARD WOMEN BLAU	0,023	0,086	.826**	.972**	1								
	BOARD WOMEN EDUC	-0,012	-0,119	.459**	.236**	.303**	1							
	BOARD WOMEN ECO	0,114	-0,032	.706**	.545**	.618**	.324**	1						
	BOARD WOMEN EXPERT	.146	0,003	.725**	.510**	.604**	.453**	.653**	1					
	BOARD WOMEN DUAL	-0,017	-0,072	.514**	.381**	.432**	.375**	.405**	.461**	1				
	BOARD SIZE	0,094	-0,042	-0,008	-.174	-.169	.192	-0,033	0,061	0,122	1			
	SECTOR	.132	0,112	.198**	.286**	.275**	0,010	0,092	0,130	-0,039	-0,114	1		
	FIRM SIZE	0,024	-0,033	-.176**	-.317**	-.316**	0,123	-.139	-0,120	0,032	.520**	-.237**	1	
	LEV	-.427**	-0,029	-0,033	-0,070	-0,039	0,009	-0,084	-0,097	-0,031	-0,006	-0,081	.187**	1

*,** indicate a significance level of 0.5 and 0.01

Source: processed secondary data

This research conducted 24 regressions using SPSS Statistics 25 Software to analyze the effect of the presence of women boards members and their capabilities on company performance, both accounting performance, and market performance. This much regression was carried out to analyze the effect of the presence of a women on board using four different proxies in each sample group (i.e.

overall, female-dominated, and male-dominated). The researcher also separated the effect of women boards members on accounting performance (short term) and market-based performance (long term), whereas in market-based performance accounting performance variable is included as a control variable.

Tabel 4. Hypothesis Testing using ROA as Dependent Variables

Variables	ALL				PERUMILE				RWALE			
	1	2	3	4	5	6	7	8	9	10	11	12
ROA	-0,0055				-0,0094				0,00151			
WOM		-0,0525				-0,0251				-0,0309		
BLAU			-0,0341**				-0,02634				-0,02526	
DIV				-0,0019				-0,0016				-0,0009
EDUC	-0,0097	-0,0075	-0,0068	-0,0071	0,00055	-0,00079	-0,00013	-0,0006	-0,0179	-0,01778	-0,0175	-0,0177
FIN	0,01575***	0,01521**	0,01651**	0,01341**	0,01147	0,010087	0,012537	0,0091	0,01471	0,01771**	0,01791**	0,01353
EXP	0,00759	0,00313	0,01023	0,00743	-0,001	-0,00153	0,000879	-0,0024	0,01614	0,01811**	0,01771**	0,01687
BLAU	-0,0079	-0,007	-0,0061	-0,003	0,00973	0,00519	0,006832	0,00494	-0,0164	-0,01414	-0,01403	-0,0137
DIV	0,00029	0,00025	0,00013	0,00043	0,00009	0,00006	0,000027	0,00051	0,00021	0,00015	0,00019	0,00026
EDUC	0,00763*	0,00724*	0,00713*	0,00759*	0,0061	0,0031*	0,00306*	0,00264*	0,00343*	0,0031	0,00304*	0,00283*
FIN	-0,1045*	-0,1049*	-0,1043*	-0,1047*	-0,0961*	-0,0971*	-0,09693*	-0,0971*	-0,121*	-0,12053*	-0,12022*	-0,1211*
EXP	0,00023	0,00046	0,00035	0,00002	0,007799*	0,007878*	0,00796*	0,00561**	0,00631**	0,006251**	0,00631**	0,00631**
N	447	447	447	447	239	239	239	256	211	211	211	211
Adj. R ²	0,17289	0,1771	0,178209165	0,1754	0,136230228	0,139151047	0,1404091305	0,13744	0,244775296	0,247591076	0,246899635	0,24402

*, **, *** indicate a significance level of 0.01, 0.05, and 0.1

Source: processed secondary data

Based on the test results in table 4, the presence of a women board had a negative but not significant effect on financial performance as proxied by ROA in the three sample groups. Of the four proxies used - namely by binary (presence or absence of women boards), percentage of women boards, diversity of boards with the Blau index, and several women boards - only the proxies of board diversity had a significant effect on the all-sample group. This showed that the diversity of the board had a negative impact on the company's performance in general. In other words, the more diverse the board in the company, the more it will improve the company's accounting performance.

Regarding the capabilities variable for women on board, of the four proxies, used, only education proxies in economics, business, or finance had a significant positive effect on both the entire sample group and the male-dominated sample group. This indicated that women boards with educational backgrounds in economics, business, or finance were able to make a positive contribution to the company. In addition, the women work experience proxy also had a significant positive in the male-dominated

sample group. Thus, it can be considered that the greater the percentage of women board members with economic/business/finance education and women board members who have relevant work experience, the higher the accounting performance, especially in the male-dominated industry.

Table 5 shows 12 regression equations related to the effect of the presence and capacity of women boards on the performance of market-based companies with the dependent variable being Tobins'Q. The presence of women has a significant positive effect on the overall sample using the Blau index proxy. In line with these results, the presence of women on board appeared to have a significant positive effect on the male-dominated industry sample group which is proxied by the Blau index and the percentage of women on board. From these results, it can be concluded that market performance in the male-dominated industry is not only affected by gender diversity (from the blau index) but also by the percentage of women board members. The higher the percentage of women boards, the better the market perception of the company's performance.

Tabel 5. Hypothesis Testing using TobinsQ as Dependent Variables

Variables	ALL				PERUMILE				RWALE			
	1	2	3	4	5	6	7	8	9	10	11	12
ROA	0,70320				0,62575				0,13421			
WOM		0,25092				0,02061				0,33776**		
BLAU			0,48812**				0,5127				0,763**	
DIV				0,02831				0,00214				0,04396
EDUC	-0,78493	-0,0331	-0,0946	-0,06156	-0,0574	-0,0544	-0,04	-0,0254	-0,1363	-0,1512	-0,1401	-0,1545
FIN	-0,38991	-0,0325	-0,0322	-0,04105	0,04303	0,04963	0,01614	0,04905	-0,1695	-0,1789	-0,1975**	-0,1568
EXP	0,19093	0,0003	-0,013	0,01817	0,03293	0,03032	0,01842	0,0321	-0,0074	-0,00601	-0,0228	0,02386
BLAU	-1,01543	-0,0797	-0,0829	-0,07426	-0,0365	-0,0393	-0,0745	-0,0359	-0,0521	-0,0491	-0,0655	-0,0228
DIV	1,23822	0,01496	0,01381	0,01123	0,02651*	0,02651*	0,03982**	0,03982**	-0,003	-0,0032	-0,0014	-0,0073
EDUC	-3,1249*	-0,0695*	-0,0626*	-0,06709*	-0,0903*	-0,0903*	-0,0905*	-0,0909*	-0,0305	-0,0144	-0,0124	-0,0206
FIN	2,9496*	0,4006*	0,39797*	0,3996*	0,26293	0,26625	0,27577	0,267	0,4575**	0,47831**	0,46621**	0,47193**
EXP	2,5262**	0,02768**	0,02696**	0,02790**	0,00638*	0,00638*	0,00969*	0,00969*	0,021	0,01035	0,00991	0,01392
BLAU	6,9839*	3,94697*	4,01014*	3,93093*	3,90901*	3,91233*	3,97767*	3,90966*	4,33194*	4,43337*	4,43194*	4,34786*
N	447	447	447	447	239	239	239	256	211	211	211	211
Adj. R ²	0,112153934	0,114745302	0,119912399	0,115110483	0,117283513	0,117424401	0,120315035	0,117396196	0,150994267	0,145423097	0,14699314	0,128475313

*, **, *** indicate a significance level of 0.01, 0.05, dan 0.1

Source: processed secondary data

The test results for the women board member capabilities variable (i.e. educational qualifications, economic/business/financial educational background, and work experience) on the company's market performance showed mostly negative results but were not significant in the overall sample and the male-dominated sample. On the other hand, in the female-dominated sample, the three proxies had a positive but not significant impact. The same result was seen in the proxy for duality or multiple positions on the women board that gave consistent results in the three sample groups of companies. There was a unique finding in the male-dominated industry sample where the economic/business/finance education proxies had a significant negative impact at the level of 10% on the company's market performance. This can be considered that women boards with economic/business/finance education had no effect on the long-term performance of the company from the point of view of market participants.

CONCLUSION

This research aims to analyze the relationship between the presence and capability of women boards on the financial performance of companies listed on the IDX. The sample used in this research is all non-financial companies listed on the Indonesia Stock Exchange in 2019. The final sample of this research is 447 companies. This research groups the sample companies into two categories, namely female-dominated and male-dominated industries based on information from the International Labor Organization (ILO). The female-dominated

industry is an industry where the majority of employees are women, namely in companies engaged in services. Other industries, such as agriculture, mining, manufacturing, fall into the male-dominated industry category. In general, the results of this research indicated that the presence of women boards in companies in Indonesia, both in the female and male-dominated industry groups, does not have a significant impact on the company's financial performance.

The findings of this research showed the uniqueness in which the presence of a women board has a significant positive impact on the company's financial performance as measured on a market basis (i.e. Tobin's Q). Therefore, hypothesis 1a and hypothesis 1b are not proven. In addition, the capability of women boards is seen to have a significant positive impact on the company's accounting performance by using a proxy for women boards with a background in economics/business/finance education and relevant work experience on women boards. These results are seen mainly in the entire sample group and the male-dominated sample group. Thus, H2 is proven. The findings of this research can contribute both theoretically and practically, namely by showing that the presence of women boards is not enough to improve company performance. In the male-dominated industry, additional capabilities on women boards are needed such as education in economics, business, or finance, as well as previous work experience in the same sector so that the role of women boards can have a positive impact on the company's accounting performance.

REFERENCE

- Abbadi, S., Abuaddous, M., & Alwashah, A. (2021). Impact of board gender diversity on the financial performance of the manufacturing and service companies listed on the Amman Stock Exchange. *Corporate Governance and Organizational Behavior Review*, 5(2), 8–16.
- Abdul W. N. S., Ntim, C. G., Adnan, M. M. M., & Tye, W. L. (2018). Top management team heterogeneity, governance changes and book-tax differences. *Journal of International Accounting, Auditing and Taxation*, 32, 30–46.
- Abdullah, S. N. (2004). Board composition, CEO duality and performance among Malaysian listed companies. *Corporate Governance: The international journal of business in society*.
- Abdullah, S.N. (2014). The causes of gender diversity in Malaysian large firms. *Journal of Management & Governance*, 18(4), 1137-1159.
- Adams, R.B. and Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309.
- Ahmadi, A., Nakaa, N., & Bouri, A. (2018). Chief Executive Officer attributes, board structures, gender diversity and firm performance among French CAC 40 listed firms. *Research in International Business and Finance*, 44, 218-226.
- Akpan, E. O., & Amran, N. A. (2014). Board characteristics and company performance: Evidence from Nigeria. *Journal of Finance and Accounting*, 2(3), 81-89.
- Arena, C., Cirillo, A., Mussolino, D., Pulcinelli, I., Saggese, S., & Sarto, F. (2015). Women on board: evidence from a masculine industry. *Corporate governance*, 15(3), 339-356.
- Barroso, C., Villegas, M.M. and Pérez-Calero, L. (2011). Board influence on a firm's internationalization. *Corporate Governance*, 19(4) 351-367.
- Boubaker, S., Dang, R., & Nguyen, D. K. (2014). Does board gender diversity improve the performance of French listed firms?. *Gestion*, 31(1), 259-269.
- Brick, I.E. and Chidambaran, N.K. (2010). Board meetings, committee structure, and firm value. *Journal of Corporate Finance*, 16 (4), 533-553.
- Calabrese, G.G. and Manello, A. (2021). Board diversity and performance in a masculine, aged and glocal supply chain: new empirical evidence. *Corporate Governance*, 21 (7),1440-1459.
- Carter, D. A., D'Souza, F., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance*, 18(5), 396-414.
- Certo, S. (2003). Influencing initial public offering investors with prestige: signaling with board structures. *Academy of Management Review*, 28 (3), 432-446.
- Chan, P.W. (2013). Queer eye on a 'straight' life: deconstructing masculinities in construction. *Construction Management and Economics*, 31 (8), 816-831.
- Conyon, M. J., & He, L. (2017). Firm performance and boardroom gender diversity: A quantile regression approach. *Journal of Business Research*, 79, 198-211.
- Dale-Olsen, H., Schone, P. and Verner, M. (2013). Diversity among Norwegian boards of directors: does a quota for women improve performance. *Feminist Economics*, 19(4), 110-135.
- de Cabo, R.M., Gimeno, R. and Escot, L. (2011). Disentangling discrimination on Spanish boards of directors. *Corporate Governance*, 9 (1), 77-95.
- Deloitte (2017). Women in the boardroom: A global perspective (5th ed.). *Deloitte Global Center for Corporate Governance*.
- Erkut, S., Konrad, V.W. and Kramer, A.M. (2008). Critical mass: does the number of women on a corporate board make a difference. *Women on Corporate Boards of Directors: International Research and Practice*,

222-232.

- 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.
- Horváth, R., & Spirollari, P. (2012). Do the board of directors' characteristics influence firm's performance? The US evidence. *Prague economic papers*, 4, 470-486.
- Jabari, H.N. and Muhamad, R. (2021). Gender diversity and financial performance of Islamic banks. *Journal of Financial Reporting and Accounting*, 19 (3), 412-433.
- Jianakoplos, N.A. and Bernasek, A. (1998). Are women more risk averse? *Economic Inquiry*, 36.
- Jiraporn, P., Chintrakarn, P. and Liu, Y. (2011). Capital structure, CEO dominance, and corporate performance. *Journal of Financial Services Research*, 42 (3), 139-158.
- Joeks, J., Pull, K. and Vetter, K. (2012). Gender diversity in the boardroom and firm performance: what exactly constitutes a 'critical mass?'. *Journal of Business Ethics*, 118 (1), 61-72.
- Kang, H.C., Anderson, R.M., Eom, K.S., & Kang, S.K. (2017). Controlling shareholders' value, long-run firm value and short-term performance. *Journal of Corporate Finance*, 43, 340-353
- Kanter, R. (1987). Men and women of the corporation revisited. *Management Review*, 76(3), 14-16.
- Kilic, M. (2015). The effect of board diversity on the performance of banks: Evidence from Turkey. *International Journal of Business and Management*, 10(9), 182-192.
- Kilic, M., & Kuzey, C. (2016). The effect of board gender diversity on firm performance: evidence from Turkey. *Gender in Management: An International Journal*, 31(7), 434-455.
- Labelle, R., Makni Gargouri, R. and Francoeur, C. (2009). Ethics, diversity management, and financial reporting quality. *Journal of Business Ethics*, 93, 335-353
- Li, H., & Chen, P. (2018). Board gender diversity and firm performance: The moderating role of firm size. *Business Ethics: A European Review*, 27(4), 294-308.
- Luckerath-Rovers, M. (2013). Women on boards and firm performance. *Journal of Management and Governance*, 17, 491-509.
- Malagila, J. K., Zalata, A. M., Ntim, C. G., & Elamer, A. A. (2020). Corporate governance and performance in sports organisations: The case of UK premier leagues. *International Journal of Finance and Economics*.
- Moreno-Gómez, J., Lafuente, E., & Vaillant, Y. (2018). Gender diversity in the board, women's leadership and business performance. *Gender in Management: An International Journal*, 33(2), 104-122
- Nekhili, M. and Gatfaoui, H. (2012). Are demographic attributes and firm characteristics drivers of gender diversity? Investigating women's positions on French boards of directors. *Journal of Business Ethics*, 118 (2), 227-249.
- Nguyen, T.H.H., Ntim, C.G., & Malagila J.K. (2020). Women on corporate boards and corporate financial and non-financial performance: A systematic literature review and future research agenda. *International Review of Financial Analysis*, 71, 1-24.
- Nguyen, Tuan, Stuart, Locke, Krishna, Reddy. (2015). Does boardroom gender diversity matter? Evidence from a transitional economy. *International Review of Economics and Finance* 37, 184-202.
- Ntim, C.G. (2015). Board diversity and organizational valuation: unravelling the effects of ethnicity and gender. *Journal of Management & Governance*, 19 (1).
- Petrovic, J. (2008). Unlocking the role of a board director: a review of the literature. *Management Decision*, 46 (9), 1373-1392.
- Pucheta-Martínez, M. C., Bel-Oms, I., & Olcina-Sempere, G. (2018). The association between board gender diversity and financial reporting quality, corporate performance and corporate social responsibility disclosure. *Academia Revista Latinoamericana de Administración*, 31(1), 177-194.

- Reguera-Alvarado, N., de Fuentes, P., & Laffarga, J. (2017). Does board gender diversity influence financial performance? Evidence from Spain. *Journal of Business Ethics*, 141(2), 337-350.
- Rodriguez-Dominguez, L., Gallego-Alvarez, I. and Garcia-Sanchez, I.M. (2009). Corporate governance and codes of ethics. *Journal of Business Ethics*, 90, 187-202.
- Sanan, N. K. (2016). Board gender diversity, financial and social performance of Indian firms. *Vision*, 20(4), 361-367.
- Seierstad, C. (2016). Beyond the business case: The need for both utility and justice rationales for increasing the share of women on boards. *Corporate Governance: An International Review*, 24(4), 390-405.
- Selby, C.C. (2000), Women on Corporate Boards of Directors. *International Challenges and Opportunities, Women on Corporate Boards of Directors*, Springer.
- Shahab, Y., Ntim, C. G., Ullah, F., Yugang, C., & Ye, Z. (2020). CEO power and stock price crash risk in China: Do female directors' critical mass and ownership structure matter? *International Review of Financial Analysis*, 68.
- Shamsul Nahar, Abdullah, Ku Ismail, Ku Nor Izah, Nachum, Lilac, 2016. Does having women on boards create value? The impact of societal perceptions and corporate governance in emerging markets. *Strategic Management Journal* 37 (3), 466-476.
- Shaukat, A., Qiu, Y., & Trojanowski, G. (2016). Board attributes, corporate social responsibility strategy, and corporate environmental and social performance. *Journal of Business Ethics*, 135(3), 569-585.
- Shehata, N., Salhin, A., & El-Helaly, M. (2017). Board diversity and firm performance: evidence from the UK SMEs. *Applied Economics*, 49(48), 4817-4832.
- Simionescu, L.N., Gherghina, S.C., Tawil, H. & Sheikha. (2021). Does board gender diversity affect firm performance? Empirical evidence from Standard & Poor's 500 Information Technology Sector. *Financial Innovation*, 7(52).
- Singh, V., Terjesen, S. and Vinnicombe, S. (2008). Newly appointed directors in the boardroom: how do women and men differ?. *European Management Journal*, 26 (1), 48-58.
- Terjesen, S., Couto, E. B., & Francisco, P. M. (2016). Does the presence of independent and female directors impact firm performance? A multi-country study of board diversity. *Journal of Management & Governance*, 20(3), 447-483
- Terjesen, S., Sealy, R. & Singh, V. 2009. Women directors on corporate boards: a review and research agenda. *Corporate Governance: An International Review*, 17 (3), 320-337.
- Torchia, M., Calabrò, A. and Huse, M. (2011). Women directors on corporate boards: from tokenism to critical mass. *Journal of Business Ethics*, 102 (2), 299-317.
- Ujunwa, A., Okoyeuzu, C. and Nwakoby, I. (2012). Corporate board diversity and firm performance: evidence from Nigeria. *Review of International Comparative Management*, 13 (4), 605-620.
- Wellalage, N. H., & Locke, S. (2013). Women on board, firm financial performance and agency costs. *Asian Journal of Business Ethics*, 2(2), 113-127.
- Wiley, C., & Monllor-Tormos, M. (2018). Board gender diversity in the STEM&F sectors: the critical mass required to drive firm performance. *Journal of Leadership & Organizational Studies*, 25(3), 290-308