Intellectual Capital, Foreign and Female Executives in the Profitability of Indonesia's Banks

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Abstract

In order to produce profits for Indonesian banking firms, this study is to investigate the qualities of the board of directors as leaders in business management and their capacity to handle intellectual capital. The observation period was in 2016-2020. The observed characteristic of the board of directors is the role of foreign directors and female directors. The results of the study show that foreign directors reduce Return on Assets. It seems that the domestic boards of banking companies in Indonesia have a better understanding and control of market conditions in Indonesia so that they are able to increase bank profitability. Similarly, female directors who excel at managing asset banks in Indonesia. Managerial banks in Indonesia, on the other hand, are able to manage their intellectual capital to maximize profits, both through asset and equity management. This study contributes to the validation of the upper-echelon theory, which demonstrates the function of top management teams in firm management.

Keywords: intellectual capital; foreign directors; female directors; profitability; bank.

Introduction

The purpose of this study is to investigate how intellectual capital, gender, and national origin of directors impacting the ability of banking companies in Indonesia to generate profits. Banking is critical to economic progress, particularly in managing a country's financial system. (Tan, 2016). A banking sector that is strong and well-capitalized will be able to weather disruptions and be able to maintain financial stability (Davis et al., 2022). In today's world, every firm must have intellectual capital in its operations, which must be carefully measured in order to determine the organization's future possibilities. According to one study, the value of intellectual capital is a key component for the long-term viability of businesses, whether large and small (Ousama et al., 2020). For the time being, more and more firms recognize the value of intellectual capital, because the objective is corporate sustainability in the face of more tough competition, prompting organizations to become more aware of the need to build their capital or intellectual assets (Olohunlana et al., 2021; Asare et al., 2021).

There are distinctions in how firms are evaluated back then and now. Previously, it was mainly concerned with historical numbers or inaccurate estimations, but today intellectual capital valuation can be quantified using the VAIC (Berzkalne and Zelgalve, 2014). Developed by Pulic in 2000, the Value Added Intellectual Coefficient (VAIC) is a measure of return on investment in knowledge capital that primarily consists of financial capital (both monetary and physical) and intellectual capital (both human and structural capital). (Castro et al., 2021). Therefore, many studies have investigated the impact of intellectual capital on firm performance through the VAIC model (Ozkan et al., 2017; Kamukama et al., 2010; Festa et al., 2021). As a result, intellectual capital efficiency can be expressed as the sum of human capital efficiency and structural capital efficiency (Castro et al., 2021). Relational capital, human capital, and structural capital are the three components of intellectual capital (Olarewaju and Msomi, 2021; Oppong and Pattanayak, 2019; McCracken et al., 2018; Chiu et al., 2019).

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For the basis, human capital is the main factor that motivates the choice in determining the strategic focus for the company's revenue model (Duho and Onumah, 2019; Feraru and Mironescu, 2012). Every human capital is believed to be a collective skill, knowledge to an intangible asset capable of creating economic value for individuals, employers and their communities (Noel and Finocchio, 2022). Even human capital is regarded as the most significant in the service business since it has an impact not only on service quality in the near term but also on various firm results in the long run (Githaiga, 2021). Especially in human capital which has an important role in the company, one of which is the board of directors. With various backgrounds on the board of directors as well as gender and nationality, it will certainly have direct and indirect influence on the decisions taken. Every board of directors has features that influence every decision made. Directors' traits might differ in various ways, such as their independence, experience, board size, gender composition, and more (Palaniappan, 2017).

According to Soewarno and Tjahjadi (2020), intellectual capital is classified as a superior intangible asset and can lead to superior performance for the company, if properly managed. So the company must be able to measure the influence of knowledge management efforts on their organizational performance. Such is the knowledge, information, and analysis of intellectual property that companies leverage to create wealth (Chizari et al., 2016). The wealth here refers to a company's profit or profitability, there are various studies that have been conducted to identify aspects of bank profitability (Shahriar et al., 2022). Return on Equity (ROE) and Return on Assets (ROA) are two indicators of the profitability of banking, which are fundamentally a consideration for investors choosing a stock (Abbas and Arizah, 2019; Zohra et al., 2022; Căpraru and Ihnatov, 2014). The importance of looking at banking performance in utilizing company assets can be seen by calculating ROA, while by calculating ROE banks can attract the interest of large numbers of shareholders (Rettab et al., 2010). In a paper made by Yadav et al. (2022), ROA calculation is based on net income divided by total assets, while for ROE calculation is net income divided by company equity. If a company can generate higher ROA and ROE for each of its total assets and total equity, it means that the company's condition is getting better. Increasing the value of ROA and ROE is, of course, a challenging task. Companies need thorough preparations and estimates from corporate managers who have various expertise. As a result, the primary goal of this study is to examine the major influence of human capital in terms of gender and nationality on subsequent profitability, both in terms of asset income and firm equity income.

Literature Review

Intellectual Capital Relationship with Profitability

There are many ways to improve business factors within a company, one of which is intellectual capital (IC) resources. Intellectual capital such as human capital and customer relations has become a factor in maintaining competitive advantage and creating corporate value (Hamdan, 2018; Al-Musali and, 2014). With intellectual capital, it is hoped that companies will be able to compete, especially because of competitive advantages that can improve the company's position (Lusmeida and Yvonne, 2022; Rehman et al., 2022). Progressively an industry recognizes the existence of intellectual capital as a component to achieve sustainable corporate competitiveness and finance (Xu and Wang, 2018). In several research achievements, it is stated that the main components of intellectual capital are human capital efficiency (HCE/Human Capital Efficiency), structural capital efficiency (SCE/Structural Capital Efficiency), and finally relational capital efficiency (RCE/Relational Capital Efficiency) (Rehman et al., 2022; Haris, et al., 2019; Nawaz, 2019). Santis et al. (2019) described human capital as a capability possessed by a person and included in intangible values, such as, knowledge and skills that can support company capacity building.

Human capital includes all parties in the company, from managers to employees and key managers who are most important in realizing innovation and the company's long-term success (Timothy, 2022). This was also revealed in research by Reynaldi and Wijaya (2022), which showed that intellectual capital, in addition to being a source of innovation and a crucial component of profitability, serves as both a major driver and a crucial resource in the value creation and long-term development of a business. Companies with large intellectual capital values will utilize knowledge obtained from various sources and will ultimately improve company reports (Nakyeyune et al., 2022). The banking business is basically a high-risk business. The strategies often used by banking companies include efficiency, stability, productivity, and finally profitability (Duho and Onumah, 2019). Bank Indonesia itself has explained about profitability in its regulations, which is to see and assess the health of a bank. In a book by Pandi (2012) there is a statement regarding the profitability ratios that can generate profits by measuring the effectiveness of the bank. Besides, it can also be used as a benchmark for the bank's financial health. In other words, the profitability ratio has an important role, considering that the maximum profit can be an improvement in the quality of the bank's capital sources. Therefore this study investigates a significant impact of intellectual capital on profitability in the banking sector in Indonesia.

Director's Characteristic Relationship to Profitability

Based on the theory of human capital, human resources are one of the most important aspects of a company. In terms of education, qualifications, up to one's experience is considered far more beneficial to the company, compared to material resources (Lu et al., 2022). So it is very natural, if the company's power holders really select every human resource who wants to work in their business, and one of them is a director. The highest decision in the company is the authority of a director. Decisions taken must be beneficial to the company, both in the long and short term. If there are errors or irregularities committed by the board of directors, it will have a negative impact on the company (Fariha et al., 2022). This was conveyed by Martikainen et al. (2022) which is that the characteristics of the board and audit committee can limit the tendency of managers to manage earnings. As stated by Palaniappan (2017), there are several aspects included in the characteristics of the board of directors / directors such as board size, board independence, board gender, and others. In order to produce profits for Indonesian banking firms, this study is to investigate the qualities of the board of directors as leaders in business management and their capacity to handle intellectual capital. Indirectly can also improve operational performance and company development (Al-Maliki et al., 2022). According to a number of earlier research, the company benefits from the charasteristics of the board of directors. The author still wishes to reevaluate the director's profitability traits, which are divided into two categories: gender and nationality. The author wants to prove the impact resulting from the characteristics of directors, especially in the field of banking business in Indonesia.

Gender Relationship to Profitability

Gender balance can enhance the decision-making process by broadening the views and experience of the governing body (Birindell et al., 2020). In addition, with variations that exist in the diversity of company boards such as expertise, age, education, gender, and others can allow for more efficient management results (Asare et al., 2021). It is said to be more efficient because there is a complementary framework so that it can encourage and strengthen corporate governance (Nicolo et al., 2022). There is some scientific evidence that female directors have an impact on firm success, particularly during critical times, although this is still uncommon (Rubino et al., 2021; Rossi et al., 2017; Gyapong et al., 2016). It was empirically proven in 2015, showing that the percentage of female councilors in Asian and African countries is still very low compared to Western countries. The male council has a percentage of 95%, while for the female council it is only 5% (Cicchiello et al., 2021). Even so, there are several studies explaining that female directors have advantages in terms of relationships and sensitivity to social, environmental and ethical issues as well as concern for stakeholders and co-workers (Nicolo et al., 2022; Zahid et al., 2020; Fernandez et al., 2019). The presence of female directors can positively improve the company's quality and ability to recognize stakeholders, so that the company's sustainability will be more guaranteed (Cicchiello et al., 2021). It can be said to have a positive or negative impact, if the company's report has a large Return on Equity (ROE) value because it can attract the interest of shareholders (Rettab et al., 2010). Several prior research have suggested that gender has a beneficial link with firm profitability. However, the authors would like to re-examine the gender link to profitability, particularly in the Indonesian banking industry. The author wants to see that the final result of the gender relationship with banking profitability in Indonesia still has a favorable or negative effect.

The Relationship of National Origin to Profitability

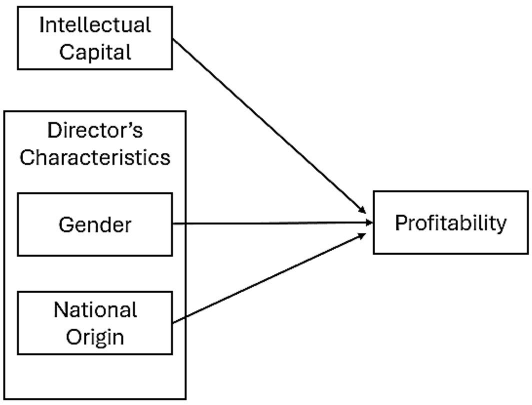

Figure 1. Research Model

There are several companies that make profitability a standard for the company's future welfare. This has similarities in the field of banking business, where profitability is the guarantor of the continuity of economic growth and system stability. Empirically, the factors that can affect bank profitability have been divided into 2: internal factors and external factors. In short, internal factors are still under the control of the bank's management and external factors are beyond the bank's control (Al-Harbi, 2019). To be able to compete with competitors, the company will tend to try to maximize internal factors. Every development or innovation has an important role in achieving company goals, employees, and company performance (Almutirat, 2022). In the development or innovation process, it must be well structured, otherwise there will be a chance that the company will not be able to return all the capital that has been used (Asare et al., 2021). In meta analysis Sierra-Moran et al. (2021) explained that there is a positive relationship between board diversity and company innovation. This diversity can enhance the company's capabilities as well as in making strategic decisions and innovation. An example of board diversity is involving a board of directors who have foreign citizenship. Certainly not without reason there is diversity in the placement of the board of directors. The board of directors itself has a role as an informant and monitor of everything related to the company (Makkonen, 2022). The variety of backgrounds represented on the board of directors ought to provide businesses a wide range of options when it comes to decision-making. However, there is still very little research that can prove empirically that foreign board of directors have a positive impact on company profitability, especially for the banking sector. As a result, the author wishes to demonstrate that the influence of citizenship origin on profitability has a strong positive tendency in

Indonesian banks. As a result, the authors want to test and investigate the following three hypotheses:

H_1 : Intellectual capital has a positive value on profitability.
H_2 : Gender has a positive value on profitability.
H_3 : Origin of citizenship has a positive value on profitability.

Methodology

Data

This study employs a quantitative method, including secondary data acquired from the Osiris and Bloomberg databases on the banking business in Indonesia from 2016 to 2020. This study uses the documentation method to collect data from all banks that have gone public (listed on the Indonesia Stock Exchange) which routinely present and publish complete (audited) financial reports (ending December 31) in 2016-2020. In this study, the population used is all banking companies located in Indonesia and registered on the IDX (Indonesian Stock Exchange) with annual reports for the period 2016 to 2020.

Independent Variable (X)

The independent variables used in this study consist of two aspects. The first independent variable is intellectual capital, which can be calculated using the Value Added Intellectual Coefficient (VAIC) proposed by (Pulic, 1998). A high VAIC value indicates a better efficient use of intellectual capital (Castro et al., 2021). As well as the higher the VAIC value, it indicates that management can make good use of the company's potential as well (Pulic, 2000). The second independent variable is the characteristics of the directors, where the characteristics of the directors are one of the keys in managing company profits (Martikainen et al., 2022). Although according to Virgandhie et al. (2017) innovation, creativity, and intellectual abilities are important factors in determining the value of a company. But characteristics are more important, based on research by Fariha et al. (2022) the company may experience destruction if the board of directors/directors commit deviations or violate existing rules. So for that, the researcher wants to prove the impact of the director's characteristics, which is focused on 2 aspects. The first aspect is gender, and the second aspect is citizenship. Researchers gathered information on the gender and nationality of the board of directors from all Indonesian banks between 2016 and 2020 in order to gather data sources on director characteristics. The researcher employs the female board computation, which divides the total number of female directors by the total number of directors in order to calculate gender. For the calculation of nationality origin, the researcher uses the foreign board calculation, where the total board of directors with a foreign national background is divided by the total board of directors as a whole.

Dependent Variable (Y)

The dependent variable used in this study is profitability, which is a ratio that measures a company's financial performance (Bansal et al., 2018; Ozkan et al., 2017). Most of the literature calculates profitability using Return On Assets (ROA) and Return On Equity (ROE). This is supported by the statement by Joshi et al. (2013), about (ROA) research is often used to measure bank profitability and represent the bank's financial performance. For ROE, there are significant factors that influence profitability with an independent variable, which is total equity to total assets (Ramlan and Adnan, 2016). The ROA value is obtained from the Earning Before Tax formula divided by the total assets for the 2016-2020 period, and the ROE value is obtained from the Earning Before Tax formula divided by the total equity for the 2016-2020 period. The results of the ROA calculation can determine the size of management's performance in managing company assets to generate profits (Muryanti and Subowo, 2017).

Control Variables

Firm Size

The firm size variable is a market value in the company (Hatane et al., 2021a). To calculate it with the natural logarithm of the company's total assets in the 2016-2020 reporting year (Castro et al. 2021).

Leverage

The leverage variable is calculated from total debt divided by the company's total assets in the 2016-2020 reporting year (Tran and Vo, 2022). The results of leverage can determine the proportion between total debt and total equity (Tantra, 2018).

Spesification Model

Model specifications are detailed descriptions of the variables that will be utilized to test a research. The following specifications of the model employed in this study:

ROAi,t = β0 + β1 VAICi,t + β2 *Foreign Boardi*,t + β3 *Female Boardi*,t + β4 *Firm Sizei*,t + β5 *Leveragei*,t + *e*

ROEi,t = β0 + β1 VAICi,t + β2 *Foreign Boardi*,t + β3 *Female Boardi*,t + β4 *Firm Sizei*,t + β5 *Leveragei*,t + *e*

Keterangan:

ROAi,t	: ROA of company i in period t
ROEi,t	: ROE of company i in period t
VAICi,t	: VAIC of company i in period t
Foreign Boardi,t	: *Foreign Board* of company i in period t
Female Boardi,t	: *Female Board* of company i in period t
Firm Sizei,t	: *Firm Size* of company i in period t
Leveragei,t	: *Leverage* of company i in period t
β0	: Constant coefficient
β	: Regression coefficient
e	: Error

Data Analysis Method

Based on the panel test in Table 1, panel data regression using the Ordinary Least Squares technique is the data analysis method used in this study. Where the technique tests heteroscedasticity. In addition, there is an appropriate approach to the fixed effect and random effect approaches. Based on the table, the Chow Test conducted a test by comparing the fixed effect and ordinary least square approaches which have found that research must use Fixed Effects. This can be seen from the results of the ROA and ROE values on the Chow Test showing less than 5% which is classified as a fixed effect. The Random Effect Test compares the random effect and conventional least square techniques that have been discovered that research must employ Random Effects. It is evident in the Random Effect Test column, which reveals ROA and ROE values of less than 5%, indicating random effects. Likewise with the Hausman test which conducts tests by comparing fixed effects and random effects which have been found that research must use fixed effects. The results of the Hausman test table state that the ROA and ROE values are less than 5% which is classified as a fixed effect.

Table 1. Panel Effect and Heteroskedasticity Tests

Profitability Model	Chow Test	Random Effect Test	Hausman Test	Heterokedasticity
ROE	2.34E-39	4.91E-62	0.0117542	0.000047
ROA	2.84E-41	3.80E-58	0.0370243	0.000000

Analysis and Discussion

Table 2 described the calculation of the average, median, maximum, minimum and standard deviation of the independent variables, dependent variables and control variables. For the results of calculating the standard deviation and the average of all existing variables, it shows that the average value is relatively good. All because the standard deviation value is smaller than the existing average value. The average of the Female Board is 0.18672 and the Foreign Board is 0.082561 which means that the board of directors with a female background tend to be more than the board of directors with foreign citizenship, especially in the 2016-2020 period. The VAIC value has a minimum limit of 1.1994 and a maximum limit of 8.1816. Likewise for Firm Size which has scores in the range of 7.6632 to 11.059 and for Leverage in the range of 0.084182 to 0.94356.

Table 2. Descriptive Variables

Variables	Mean	Median	Minimum	Maximum	Standar Deviation
ROA	0.021429	0.017496	-0.002056	0.16753	0.020967
ROE	0.12535	0.11113	-0.014188	0.40317	0.087135
VAIC	3.0904	3.0597	1.1994	8.1816	1.1046
Foreign Board	0.082561	0	0	0.5	0.13452
Female Board	0.18672	0.16667	0	0.75	0.19187
Firm Size	9.3591	9.2901	7.6632	11.059	0.80607
Leverage	0.81353	0.84518	0.084182	0.94356	0.1246

Table 3 expresses the diversity of results obtained, as well as the positive coefficient value on the VAIC variable, where VAIC itself is an indicator of measuring intellectual capital for the total efficiency of the company. However, after researchers focused again on intellectual capital based on gender and nationality, the results obtained were different. Where it can be observed that the Foreign Board has a detrimental affect on ROA and ROE. This suggests that the board of directors with foreign nationality has little impact on banking performance in terms of asset usage and business equity use. Where it can be seen that there is a negative influence between the Foreign Board on ROA and also ROE. This means that the board of directors with foreign nationality does not have much influence on banking performance in the utilization of assets and also in the utilization of company equity.

Table 3. Regression Results

Variables	Profitability: ROE			Profitability: ROA		
	Coefficients	P-Values	VIF	Coefficients	P-Values	VIF
Const	-0.29033	8.91e-033***		0.02036	1.84e-011***	
VAIC	0.05959	1.64e-072***	1.476	0.01171	2.67e-125***	1.476
Foreign Board	-0.00162	0.8798	1.023	-0.01239	1.55e-010***	1.023
Female Board	0.01149	0.1972	1.035	0.00468	9.45e-07***	1.035
Firm Size	0.01021	0.0005***	1.972	-0.00023	0.4475	1.972
Leverage	0.15312	5.24e-013***	1.655	-0.04181	1.90e-025***	1.655
P-Value F-test		1.30E-119			8.10E-150	
Adjusted R-Squared		0.920991			0.958157	

Research by (Nimtrakoon, 2015; Castro et al., 2021) stated that VAIC as a measure of return on investment in the form of knowledge capital. VAIC can give information regarding the efficiency of tangible and intangible assets in creating value in a business. This is also consistent with the authors' estimates, which show that VAIC has a favorable influence on ROA. One way of looking at it is that intellectual capital in banking in Indonesia has a positive influence on the use of corporate assets, and this is something that can be seen in a favorable light. For foreign directors, this step is very much the object of research, but there is one study from (Sierra-Moran et al., 2021) which explained the positive relationship between board diversity and corporate innovation. The diversity in question is the diversity of backgrounds on the board of directors of the firm, which has a positive influence on corporate creativity. Indirect innovations will help the firm expand in a more positive approach. Foreign directors are one of the variations that take place within the scope of the board of directors. Foreign directors are directors with a background of citizenship from another country. This is believed to make the company more and more have many choices of considerations to make a decision. However, in this study it can be seen from the regression results which state that the board of directors has a negative impact on company profitability, both in terms of assets and equity. In other words, the presence of foreign directors does not have such a big impact on company profits. This is evident from the data that the author has collected, where the percentage of foreign directors involved in every bank in Indonesia is so low.

For female directors, it has been researched by (Cicchiello et al., 2021) which stated that the presence of female directors can positively improve the company's quality and ability to identify stakeholders, so that the company's sustainability will be more secure. Though, the outcome is different than Asaredan et al. (2021), which in his research emphasized that a board with a woman's dominance is unlikely to have good intellectual capital. With 2 existing studies and 2 different results, the authors also want to prove the accuracy of the results. And the final result is that the regression on female directors has a positive impact on assets and equity in banking companies in Indonesia. According to current findings, bank equity is more impacted by female directors than firm assets are.

Through research, Castro et al. (2021) believed that company size has been determined based on total assets in a particular reporting year. In other words, the size of a company is determined by the total assets it owns. However, this is inversely proportional to the results of the researchers, where the coefficient of company size on ROA has a negative impact. This may be due to the company's ability which is also classified as incapable of managing an asset. According to Tantra (2018), there should be a good proportion between total debt and total equity in a company. With good proportions, it will produce good asset management capabilities as well. It can be seen from the results of the researchers, that the coefficient of the company's ability is negative on ROA. However, the business is able to effectively manage its current equity, as evidenced by the research findings, which indicate a positive ROE. In this study, total equity has a greater indirect influence on firm size than competence to manage equity.

The Upper Echelons theory developed by Hambrick & Mason in (Makkonen, 2022; Xiong, 2016), elucidates how the company's success is directly attributable to the leadership's efforts. The most senior executives in a company have a significant impact on the processes that lead to the generation of value for the business. These processes include the formulation of business strategies, the preparation of financial reports, and the distribution of corporate resources. In playing this role, top managers are influenced by their knowledge and skills, beliefs, and individual characteristics. By studying the characteristics of management, managers can determine company performance that has an impact on profits (Bouaziz et al., 2020). The top manager referred to in this study is the board of directors. From the Upper Echelons theory, the authors understand that female boards have a more positive and significant impact than foreign boards. This could be because female boards have more diverse characteristics of directors/directors, including independence, experience, board size, and many more. (G., 2017).

There are fairly few banks in Indonesia with foreign personnel who become directors. According to research data sources, certain banks with foreign directors are not very profitable. In other words, the presence of a foreign director in a financial business has no impact. Meanwhile, banking companies benefit greatly from the presence of female directors. It can be seen from BRI that the youngest CEO was 22 years old in 2021, and the CEO is a woman. This can also happen because there is support from banking officials and also the government which supports gender equality in opportunities to get work. BRI contributes to this by giving a composition of 42.36% female workers and 57.64% male workers. Apart from BRI, there are two female directors of Bank BJB who have made it to the list of the Top 100 Most Outstanding Women in Banking 2022. Bank BJB also offers to help women advance their professions in the community. According to Bank BJB, women can be counted on to carry out their responsibilities as financial managers, which are also carried out in a conscientious and cautious manner.

Conclusions and Recommendations

Banking has an important role in economic growth, especially in managing a country's financial system. In the current era, every company must have intellectual capital in its business which must be measured precisely to measure the company's future capabilities. For now the assessment of intellectual capital can be measured using the VAIC. The VAIC assists businesses in calculating the return on investment in knowledge capital, taking into consideration both intellectual and financial capital. Especially in human capital which has an important role in the company, one of which is the board of directors. With various backgrounds/characteristics of the board of directors such as gender and nationality, it will certainly have direct and indirect influence on the decisions taken. As a result, the corporation must be able to quantify the impact of knowledge management activities on organizational performance. Such is the knowledge, information, and analysis of intellectual property that companies leverage to create wealth. Wealth in question is the profit or profitability of the company, there are various studies that have been conducted to identify aspects of bank profitability. ROA and ROE, which are important considerations for investors when selecting a firm, can illustrate the link between banking and profitability. It is critical to assess banking success in employing firm assets, which can be seen by calculating ROA, as well as the interest of a large number of shareholders, which can be observed by calculating ROE. Of course, increasing the value of ROA and ROE is not an easy task. Companies require meticulous planning and calculations from corporate employees with varied backgrounds.

Intellectual capital such as human capital and customer relations has become a factor in maintaining competitive advantage and creating corporate value. The banking business is basically a high-risk business. The strategies often used by banking companies include efficiency, stability, productivity, and finally profitability. Profitability ratios can generate profits by measuring the effectiveness of a bank and besides that it can also be used as a measure of a bank's financial health. A director has the ultimate decision-making power in the firm. Decisions taken must be beneficial to the company, both in the long and short term. The company's operations would suffer if the board of directors makes mistakes or acts irregularly. qualities of the board of directors/directors, such as the board's size, gender, independence, and other aspects. Gender balance can improve decision-making by diversifying the governing body's perspectives and experience. There is some scientific showing that female directors have an impact on firm success, particularly during critical times, although this is still uncommon. The presence of female directors can positively improve the company's quality and ability to identify stakeholders, so that the company's sustainability will be more guaranteed. When looking at the empirical evidence, we find that both internal and external factors can have an impact on a bank's profitability. The corporation will prioritize improving internal processes so it can better compete with rivals.

Calculation the standard deviation and the average of all variables which describe the average value as good. The VAIC calculation results show a positive impact on ROA, meaning that banking intellectual capital in Indonesia has a positive influence on the use of company assets. Meanwhile, the diversity of backgrounds/characteristics of the company's board of directors has a negative impact on company profitability, both in terms of assets and equity. That is to say, having foreign directors does not have a major effect on financial outcomes for businesses. The regression in female directors has a beneficial influence on assets and equity in Indonesian banking organizations. In terms of existing outcomes, female directors have a bigger influence on bank equity than firm assets. For equity users, Firm Size and Leverage have positive coefficient values, but not for asset users. The coefficient of company size on ROA has a negative impact, the reason is because the company's ability is classified as lacking in managing company assets. According to the authors' understanding of the Upper Echelons Theory, the Female Board has a more positive and important influence than the Foreign Board. This might be because female directors have a variety of director qualities. The engagement of foreign employees in director positions in Indonesia is quite limited. In the meanwhile, banking companies benefit greatly from the presence of female directors.

The researcher realizes that there are still many shortcomings in this study, so the suggestions for future research are to re-examine the impact of foreign boards on banking profitability. This is because researchers still cannot prove that foreign boards of directors have no effect on the profitability of banks in Indonesia. It is also possible that the next research can change the research period as a comparison of whether there is progress or not.

References

Abbas, A., & Arizah, A. (2019). Marketability, Profitability, and Profit-Loss Sharing: Evidence from Sharia Banking in Indonesia. *Asian Journal of Accounting*, 315-326.

Al-Harbi, A. (2019). The Determinants of Conventional Banks Profitability in Developing and Underdeveloped OIC Countries. *Journal of Economics, Finance and Administrative Science*, 4-28.

Al-Maliki, H., Salehi, M., & Kardan, B. (2022). The Relationship Between Board Characteristics and Social Responsibility with Firm Innovation. *European Journal of Management and Business Economics*, 2444-8451.

Al-Musali, M. A., & Ismail, K. N. (2014). Intellectual Capital and Its Effect on Financial Performance of Banks: Evidence from Saudi Arabia. *Procedia - Social and Behavioral Sciences*, 201 – 207.

Almutirat, H. A. (2022). The Impact of Intellectual Capital in Organizational Innovation: Case Study at Kuwait Petroleum Corporation (KPC). *Review of Economics and Political*, 34-55.

Asare, N., Laryea, M. M., Onumah, J. M., & Asamoah, M. E. (2021). Intellectual Capital and Asset Quality in An Emerging Banking Market. *Asian Journal of Accounting Research*, pp. 55-68.

Asare, N., Otchere, F. A., & Onumah, J. M. (2020). Corporate Board Structures and Intellectual Capital: Evidence from Banks in Africa. *Asian Journal of Economics and Banking*, 2615-9821.

Bank BJB. (2022, 24 Mei). *2 Direksi Wanita Bank BJB Masuk TOP 100 Most Outstanding Women 2022*. Diakses pada 24 Mei 2022, dari https://www.bankbjb.co.id/news/2-direksi-wanita-bank-bjb-masuk-top-100-most-oustanding-women-2022

Bansal, R., Singh, A., Kumar, S., & Gupta, R. (2018). Evaluating Factors of Profitability for Indian Banking Sector: A Panel Regression. *Asian Journal of Accounting*, 236-254.

Berzkalne, I., & Zelgalve, E. (2014). Intellectual Capital and Company Value. *Procedia - Social and Behavioral Sciences*, 887-896

Birindell, G., Chiappini , H., & Savioli, M. (2020). When Do Women on Board of Directors Reduce Bank Risk? *Corporate Governance*, 1307-1327.

Bouaziz, D., Salhi, B., & Jarboui, A. (2020). CEO Characteristics and Earnings Management: Empirical Evidence from France. *European Journal of Innovation Management*, 77-110.

Căpraru, B., & Ihnatov, I. (2014). Banks' Profitability in Selected Central and Eastern European Countries. *Procedia Economics and Finance*, 587 – 591.

Castro, J. P., Ramírez, D. F., & Escobar, J. (2021). The Relationship Between Intellectual Capital and Financial Performance in Colombian Listed Banking Entities. *Asia Pacific Management Review*, 237-247.

Chiu, J., Chen, C., Cheng, C., & Hung, S. (2019). Knowledge Capita;, CEO Power, and Firm Value: Evidence from the IT Industry. *Nort American Journal of Economics and Finance* , 101012.

Chizari, M. h., Mehrjardi, R. Z., Sadrabadi, M. M., & Mehrjardi, F. K. (2016). The Impact of Intellectual Capitals of Pharmaceutical Companies Listed in Tehran Stock Exchange on Their Market Performance. *Procedia Economics and Finance*, 291-300.

Cicchiello, A. F., Fellegara, A. M., Kazemikhasragh, A., & Monferrà, S. (2021). Gender Diversity on Corporate Boards: How Asian and African Women Contribute on Sustainability Reporting Activity. *Gender in Management: An International Journal*, 801-820.

CNBC Indonesia. (2021, 5 Oktober). *Perempuan Cantik Ini Jadi CEO BRI Termuda, Siapakah Dia*?. Diakses pada 5 Oktober 2021, dari https://www.cnbcindonesia.com/market/20211005165020-17-281652/perempuan-cantik-ini-jadi-ceo-bri-termuda-siapakah-d

Davis, E. P., Karim, D., & Noel, D. (2022). The Effects of Macroprudential Policy on Banks' Profitability. *International Review of Financial Analysis*, 101989.

Duho, K. C., & Onumah, J. M. (2019). Bank Diversification Strategy and Intellectual Capital in Ghana: An Empirical Analysis. *Asian Journal of Accounting*, 246-259.

Fariha, R., Hossain, M., & Ghosh, R. (2022). Board Characteristics, Audit Committee Attributes and Firm Performance: Empirical Evidence from Emerging Economy. *Asian Journal of Accounting*, 84-96.

Feraru, A., & Mironescu, R. (2012). The Intellectual Capital and the Learning Organization. *Journal of International Scientific Publication*, 30-40.

Fernandez, W., Burnett, M., & Gomez, C. (2019). Women in the Boardroom and Corporate Social Performance: Negotiating the Double Bind. *Management Decision*, 2201-2222.

Festa, G., Rossi, M., Kolte, A., & Marinelli, L. (2021). The Contribution of Intellectual Capital to Financial Stability in Indian Pharmaceutical Companies. *Journal of Intellectual Capital*, 337-359.

Githaiga, P. N. (2021). Human Capital, Income Diversification and Bank Performance–An Empirical Study of East African Banks. *Asian Journal of Accounting*, 95-108.

Gyapong, E., Monem, R., & Hu, F. (2016). Do Women and Ethnic Minority Directors Influence Firm Value? Evidence from Post-Apartheid South Africa. *Journal of Business Finance and Accounting*, 370-413.

Hamdan, A. (2018). Intellectual Capital and Firm Performance: Differentiating Between Accounting-Based and Market-Based Performance. *International Journal of Islamic and Middle Eastern Finance and Management*, 139-151.

Haris, M., Yao, H., Tariq, G., Malik, A., & Javaid, H. M. (2019). Intellectual Capital Performance and Profitability of Banks: Evidence from Pakistan. *Journal of Risk and Financial Management*, 56-69.

Hatane, S., Diandra, J., Tarigan, J., & Jie, F. (2021a). Voluntary Intellectual Capital Disclosure and Earnings Forecast in Indonesia-Malaysia-Thailand Growth Triangle's Pharmaceuticals Sector. *International Journal of Emerging Markets*.

Joshi, M., Cahill, D., Sidhu, J., & Kansal, M. (2013). Intellectual Capital and Financial Performance: An Evaluation of the Australian Financial Sector. *Journal of Intellectual Capital*, 264-285.

Kamukama, N., Ahiauzu, A., & Ntayi, J. M. (2010). Intellectual Capital and Performance: Testing Interaction Effects. *Journal of Intellectual Capital*, 554-574.

Lu, Y., Ntim, C., Zhang, Q., & Li, P. (2022). Board of Directors' Attributes and Corporate Outcomes: A Systematic Literature Review and Future Research Agenda. *International Review of Financial Analysis*, 102424.

Makkonen, T. (2022). Board Diversity and Firm Innovation: A Meta-Analysis. *European Journal of Innovation Msnsgement*, 941-960.

Martikainen, M., Miihkinen, A., & Watson, L. (2022). Board Characteristics and Negative Disclosure Tone. *Journal of Accounting Literature*, 737-4607.

McCracken, M., McIvor, R., Treacy, R., & Wall, T. (2018). A Study of Human Capital Reporting in the United Kingdom. *Accounting Forum 42*, 130-141.

Muryanti, Y. D., & Subowo. (2017). The Effect of Intelectual Capital Performance, Profitability, Leverage, Managerial Ownership, Institutional Ownership, and Independent Commissioner on The Disclosure of Intelectual Capital. *Accounting Analysis Journal*, 2252-6765.

Nakyeyune, G. K., Bananuka, J., Tumwebaze, Z., & Kezaabu, S. (2022). Knowledge Management Practices and Sustainability Reporting: The Mediating Role of Intellectual Capital. *Journal of Money and Business*, 2634-2596.

Nawaz, T. (2019). Exploring the Nexus Between Human Capital, Corporate Governance and Performance: Evidence from Islamic Banks. *Journal of Business Ethics*, 567-587.

Nicolo, G., Zampone, G., Sannino, G., & Iorio, S. (2022). Sustainable Corporate Governance and Non-Financial Disclosure in Europe: Does the Gender Diversity Matter? *Journal of Applied Accounting*, 967-5426.

Nimtrakoon, S. (2015). The Relationship Between Intellectual Capital, Firms' Market Value and Financial Performance. *Journal of Intellectual Capital*, 587-618.

Noel, T. K., & Finocchio, B. (2022). Using Theories of Human, Social, Structural, and Positive Psychological Capital to Explore the Attrition of Former Public School Practitioners. *International Journal of Educational Research Open*, 100112.

Olarewaju, O. M., & Msomi, T. S. (2021). Intellectual Capital and Financial Performance of South African Development Community's General Insurance Companies. *Heliyon*, e06712.

Olohunlana, A. O., Odeleye, A., & Isola, W. (2021). Determinants of the Intellectual Capital Efficiency of Listed Banks in Nigeria: A DEA Approach. *Journal of Business and Socioeconomic Development*, 2635-1374.

Oppong, G. K., & Pattanayak, J. (2019). Does Investing in Intellectual Capital Improve Productivity? Panel Evidence from Commercial Banks in India. *Borsa _Istanbul Review*, 219-227.
Ousama, A., Hammami, H., & Abdulkarim, M. (2020). The Association Between Intellectual Capital and Financial Performance in the Islamic Banking Industry An Analysis of the GCC Banks. *International Journal of Islamic and Middle Eastern Finance and Management*, 75-93.
Ozkan, N., Cakan, S., & Kayacan , M. (2017). Intellectual Capital and Financial Performance: A study of the Turkish Banking Sector. *Borsa Istanbul Review*, 190-198.
Palaniappan, G. (2017). Determinants of Corporate Financial Performance Relating to Board Characteristics of Corporate Governance in Indian Manufacturing Industry. *European Journal of Management and Business Economics*, 67-85.
Pandi, F. (2012). *Manajemen Dana dan Kesehatan Bank.* Jakarta: Rineka Cipta.
Pulic, A. (2000). VAICTM An Accounting Tool for IC Management. *International Journal of Technology Management*, 702-714.
Pulic, A. (1998). *Measuring the Performance of Intellectual Potential in Knowledge Economy. Paper presented at the 2nd McMaster Word Congress on Measuring and Managing Intellectual Capital by the Austrian Team for Intellectual Potential.*
Ramlan, H., & Adnan, M. S. (2016). The Profitability of Islamic and Conventional Bank: Case study in Malaysia. *Procedia Economics and Finance*, 359-367.
Rehman, A. U., Aslam, E., & Iqbal, A. (2022). Intellectual Capital Efficiency and Bank Performance: Evidence from Islamic Banks. *Borsa _Istanbul Review*, 113-121.
Rettab, B., Kashani, H., Obay, L., & Rao, A. (2010). Impact of Market Power and Efficiency on Performance of Banks in the Gulf Cooperation Council Countries. *International Research Journal of Finance and Economics*, 1450-2887.
Reynaldi, D., & Wijaya, C. (2022). The Influence of Intellectual Capital and Innovation on the Performance of SOEs in the Banking Sector in Indonesia. *Technium Social Sciences Journal*, 2668-7798.
Rossi, F., Hu, C., & Foley, M. (2017). Women in the Boardroom and Corporate Decisions of Italian Listed Companies Does The 'Critical Mass' Matter? *Management Decision*, 1578-1595.
Rubino, F. E., Tenuta, P., & Cambrea, D. R. (2021). Five Shades of Women: Evidence from Italian Listed Firms. *Meditari Accountancy Research*, 54-47.
Santis, S., Bianchi, M., Incollingo, A., & Bisogno, M. (2019). Disclosure of Intellectual Capital Components in Integrated Reporting: An Empirical Analysis. *sustainability*, 62.
Shahriar, S. M., Hoque, M. N., Wanke, P., & Azad, M. A. (2022). The Effect of Capital Structure, Operating Efficiency and Non-Interest Income on Bank Profitability: New Evidence from Asia. *Asian Journal of Economics and Banking*, 2615-9821.
Sierra-Moran, J., Cabeza-Garcıa, L., Gonzalez-Alvarez, N., & Botella, J. (2021). The Board of Directors and Firm Innovation. *Business Research Quarterly*.
Soewarno, N., & Tjahjadi, B. (2020). Measures That Matter: An Empirical Investigation of Intellectual Capital and Financial Performance of Banking Firms In Indonesia. *Journal of Intellectual Capital*, 1085-1106.
Tan, Y. (2016). The Impacts of Risk and Competition on Bank Profitability in China. *Journal of International Financial Market, Institutions & Money*, 85-110.
Tantra, A. (2018). Factors Affecting Intellectual Capital Disclosure and Company Value. *Journal of Business Management and Accounting*, 1-14.
Timothy, V. (2022). The Effect of Top Managers' Human Capital on SME Productivity: The Mediating Role of Innovation. *Heliyon*, e09330.
Tran, N. P., & Vo, D. H. (2022). Do Banks Accumulate A Higher Level of Intellectual Capital? Evidence from An Emerging Market. *Journal of intellectual capital*, 439-457.
Virgandhie, A., Rizkia, H., Rijanto, A., & Yuliati, R. (2017). Pengaruh Modal Intelektual terhadap Kinerja Perusahaan pada Perusahaan yang Terdaftar di Bursa Efek Indonesia. *Jurnal Ekonomi, Manajemen dan Perbankan*, 67-79.
Xiong, J. (2016). Chairman Characteristics and Earnings Management: Evidence from Chinese Listed Firms. *Open Journal of Accounting*, 82-94.
Xu, J., & Wang, B. (2018). Intellectual Capital, Financial Performance and Companies' Sustainable Growth: Evidence from the Korean Manufacturing Industry. *Sustainability*, 46-51.
Yadav, I. S., Pahi, D., & Gangakhedkar, R. (2022). The Nexus Between Firm Size, Growth and Profitability: New Panel Data Evidence from Asia–Pacific Markets. *European Journal of Management and Business Economics*, 115-140.
Zahid, M., Rahman, H., Ali, W., Khan, M., & Alhart. (2020). Boardroom Gender Diversity: Implications for Corporate Sustainability Disclosures in Malaysia. *Journal of Cleaner Production*, 118683.
Zohra, K. F., Abbassia, R., & Zohra, D. F. (2022). The Effects of Coronavirus on The Profitability of the Banks Operating in Jordan: An Empirical Study. *Technium Social Sciences Journal*, 2668-7798.