

THE EFFECT OF INTELLECTUAL CAPITAL AND FIRM SIZE TO PROFITABILITY IN THE BANKING SECTOR LISTED ON IDX

Maria Virginia Lim
virginia.lim11@gmail.com

Delfi Panjaitan
delfi@ukmc.ac.id

ABSTRACT

This study aims to determine the effect of intellectual capital and firm size on profitability in the banking sector listed on the IDX. The data used is secondary data, with a population of banking sector companies listed on the IDX for the 2016-2020 period. The sampling technique used a purposive sampling method and obtained 27 companies with a total sample of 135. Hypothesis testing in this study was carried out by multiple regression analysis. The results showed that Value Added Capital Employed (VACA) had no effect on profitability, Value Added Human Capital (VAHU) had no effect on profitability, Structural Capital Value Added (STVA) had no effect on profitability, and firm size had an effect on profitability.

Keywords: Intellectual Capital, VACA, VAHU, STVA, Firm Size, Profitability

ABSTRAKSI

Penelitian ini bertujuan untuk mengetahui pengaruh intellectual capital dan firm size terhadap profitabilitas pada sektor perbankan yang terdaftar di BEI. Data yang digunakan adalah data sekunder, dengan populasi perusahaan sektor perbankan yang terdaftar di BEI periode 2016-2020. Teknik pengambilan sampel menggunakan metode purposive sampling dan diperoleh 27 perusahaan dengan total 135 sampel. Pengujian hipotesis dalam penelitian ini dilakukan dengan analisis regresi berganda. Hasil penelitian menunjukkan bahwa Value Added Capital Employed (VACA) tidak berpengaruh terhadap profitabilitas, Value Added Human Capital (VAHU) tidak berpengaruh terhadap profitabilitas, Structural Capital Value Added (STVA) berpengaruh terhadap profitabilitas, dan firm size berpengaruh terhadap profitabilitas.

Kata kunci: Intellectual Capital, VACA, VAHU, STVA, Firm Size, Profitabilitas

INTRODUCTION

Globalization has a broad impact on all fields, especially in the fields of technology and science in business. With increasing technology and

science, companies must have good and effective business strategies in facing business competition. Moreover, the Covid-19 pandemic that has occurred throughout the world, including Indonesia, has forced all activities to be carried out with social distancing. Companies are required to build a business pattern that is not only based on labor, but based on knowledge (knowledge based business), where knowledge is the main focus.

Sawarjuwono & Kadir (2003) stated that, along with the changing characteristics of the economy which is now based on science and the application of knowledge management, the ability to create and utilize this knowledge will be the key to prosperity in the company. Knowledge-based business pattern is expected to create a competitive advantage and provide profitability for the company. In addition, knowledge-based businesses can manage the hidden value contained in intangible assets so as to create added value for the company.

The profitability of a company can be seen from the company's ability to generate profits. To see this, several ratios can be used to measure it, one of which is Return On Assets (ROA). High profitability indicates that the company has made a profit from the assets owned by a company running its business activities. ROA is a ratio that reflects the company's ability to earn a profit from the assets used. Based on previous research, profitability can be influenced by intellectual capital and firm size. Intellectual capital is included in intangible assets. Intangible assets in Indonesia have been regulated in PSAK 19 (Revised 2010). Donald E Kieso (2002:113) quoted from Aprilya et al., (2020) states that the most important intangible asset is knowledge, namely a company's intellectual capital. One form of intellectual capital is business activities based on technology and science.

The sector that is aggressively transforming from conventional to technology and science in its business activities is the banking sector. Conventional banks are starting to turn into digital banks and develop digital banking services or often known as digital banking such as SMS banking, mobile banking, internet banking, and so on. In order to increase their profitability, banks compete to meet the needs of transactions that are more practical for customers. The competition of banks to become digital banks is starting to be seen. Initially, it started with Bank BTPN which launched a digital banking application called Jenius. After that, a year later, DBS Indonesia launched Digibank (CNBC Indonesia). News from Bisnis.com stated that five banks have declared themselves as digital banks, namely Jenius from Bank BTPN, Wokee from Bank Bukopin, Digibank from Bank DBS, TMRW from Bank UOB, and Jago from Bank Jago. In addition, there are seven banks that are in the process of going digital. Digital banking services allow customers to access banking features via smartphones or tablets. This certainly makes it easier for customers who want to make money transactions because they don't need to be physically present at the bank. Transactions can be carried out

independently, simply through an application owned by the customer on a smartphone. This form of digital services carried out by banks can be referred to as a form of intellectual capital development.

The increase in digital transactions certainly brings benefits not only for customers who make transactions easier, but also for banking companies. This is also evidenced by a statement from Raymon Yonarto, Corporate Secretary of BCA, that internet banking and mobile banking transactions have contributed 73% to the frequency of BCA transactions. In addition, seen from the total transaction value, it has also contributed 42% (Kontan.co.id). Apart from BCA, PT Bank Negara Indonesia Tbk (BBNI) said that during the Covid-19 pandemic, digital transactions experienced a significant increase. The volume of transactions carried out digitally increased by 80.4 percent on an annual basis until the end of September 2020. In the 3rd quarter of 2020 it increased by 48.1%, namely 211 million transactions, which was originally only 142 million in the 3rd quarter of 2019. In the plan Going forward, BNI will also focus on digital-based development, both in services to the public and internally by the company in carrying out business processes. This is done to further increase the productivity and efficiency of the company's performance (CNBC Indonesia).

In addition to digital services, science and technology are also reflected in the superior and competitive capabilities of human resources in the company. Training, learning programs, and training are needed to train employees' competencies and soft-skills in order to increase their intellectual capital from the perspective of human capital. Profitability is also influenced by one of the other variables used in this study, namely firm size.

*In this study, the population that will be used is the banking sector companies listed on the Indonesia Stock Exchange (IDX). The reason the researcher chooses the banking sector as the population of this study is because the banking sector makes a real contribution to the use of intellectual capital. The proliferation of digital banks that provide digital banking services today is clear evidence that the banking sector is currently a population that utilizes its intellectual capital. With the phenomena and research results described above, related to the inconsistency of intellectual capital and firm size variables in influencing firm profitability, the researcher wants to examine and examine the effect of intellectual capital and firm size on profitability. Therefore, this research is entitled **“THE EFFECT OF INTELLECTUAL CAPITAL AND FIRM SIZE TO PROFITABILITY IN THE BANKING SECTOR LISTED ON IDX”***

Resource Based Theory, was first presented by Wernerfelt (1984). This theory explains that the resources owned by the company and the ability to process them will determine whether a success will be obtained or not. In addition, this theory also emphasizes looking at the resources owned by the company rather than looking at the products produced by

the company. So, these resources must be owned, controlled, and processed with a strategy. A company that has resources can achieve competitive advantage through its resources.

Intellectual Capital. Pulic (2000) states that intellectual capital can be measured using the Value Added Intellectual Coefficient (VAICTM) indicator. To get VAICTM, 3 components of added value are needed, namely by adding up VACA, VAHU, and STVA. Value Added Capital Employed (VACA), is the division of value added (value added) with the company's physical capital. VACA is a form of the company's ability to manage its resources in the form of capital assets. Value Added Human Capital (VAHU), is the influence between the increase in capital and human capital which shows the effect of human capital in adding value to the company. Human capital refers to the factors of ability, attitude, knowledge, and skills possessed by company employees. Structural Capital Value Added (STVA), is the ability of an organization or company to assist the company's routine processes and structures that support employee efforts. The work environment and structure created by the company can be useful to produce optimal intellectual performance as a whole so that business performance is achieved.

Firm Size, the company size category according to the National Standardization Agency quoted from Krisnandi et al., (2019), firm size is divided into 3 types, namely large, medium, and small companies. According to Kartikasari & Merianti (2016), the bigger a company, the easier it is to get capital from outside (external). The bigger the capital, the bigger the company, and so on. Companies with large sizes are believed to be able to further improve company performance.

Profitability is a measure used to see a company in generating income by considering the capital owned by the company. Profitability can be measured by several ratios, including Return On Assets, Gross Profit Margin, Net Profit Margin, Return On Equity. In this study, the ratio used to measure profitability is Return On Assets (ROA).

VACA relates to the company's ability to manage capital assets. The company's performance is seen from how much added value is generated on the basis of the use of physical assets used by the company. The VACA variable has relevance to resource based theory, because in an effort to increase profitability, assets are needed that can support the company's operational activities. The assets owned by the company are not for sale but are used for company activities in an effort to create profit. With the involvement of each physical capital to add value (value added) in a company which ultimately affects profitability. The company's profitability will increase if the company can manage VACA properly.

H1: Value Added Capital Employed (VACA) has an effect on profitability.

Value Added Human Capital (VAHU) is one of the indicators used to measure intellectual capital. According to Kazhimi & Sulasmiyati (2019), human capital also reflects the company's collective ability to produce the

best solutions for the company based on the thoughts and knowledge of the people in the company. Human capital is an asset that refers to the factors of ability, attitude, knowledge, and skills possessed by employees in the company.

The VAHU variable has relevance to the theory used in this study, namely resource based theory. Human capital is the foundation of intellectual capital, because companies with good quality human resources will provide added value for the company. The added value will create a competitive advantage for the company which has an impact on increasing the company's financial performance, namely profitability.

H2: Value Added Human Capital (VAHU) has an effect on profitability.

According to Sawarjuwono & Kadir (2003), structural capital is the company's ability to fulfill routine processes and structures that support employee efforts to produce optimal performance and increase company value. The structural capital in question is for example the company's operational system, organizational culture, management philosophy, and all forms of intellectual property (brands, copyrights, patents) owned by the company. Employees can have a high intellectual level, but if it is not supported by good working conditions and environment or in other words the company has bad systems and procedures, then it will be in vain. If the company has and is able to utilize structural capital that can support the performance of employees and other assets, this will certainly increase the company's performance. If the company's performance increases, it indicates the company will also earn higher profits which means profitability will also increase.

H3: Structural Capital Value Added (STVA) has an effect on profitability.

In this study, firm size is reflected in the total assets owned by the company. The assets owned by the company are used to carry out the company's operational activities. Efficient and effective use of assets can lead to increased company profitability. Firm size is related to resource based theory, because the larger the size of a company, the greater the resources it has. By utilizing these resources, the company's profitability will certainly increase.

H4: Firm size has an effect on profitability.

The VACA variable (X1) has a minimum value of 0.05273. This value is owned by PT Bank Ina Perdana Tbk (BINA). The maximum value for the VACA variable is 0.39390 which is owned by PT Bank Syariah Indonesia Tbk (BRIS). The average value of VACA is 0.1934167 or 19.3%. This means that a company that generates added value with its capital assets < 19.3% means that the company has not utilized its capital assets properly. The standard deviation value of 0.07543885 which is smaller than the mean indicates that the data distribution is homogeneous or even.

The variable VAHU (X2) has a minimum value of 0.81575 which is owned by PT Bank Syariah Indonesia Tbk (BRIS). The maximum value of 3.83236 is owned by PT Bank Mandiri (Persero) Tbk (BMRI). The

average value (mean) on the VAHU variable is 2.1945079. This shows that companies that have utilized their human capital are companies that generate added value > 2.1945079 . The VAHU standard deviation value of 0.75182550 indicates that the data is evenly distributed or in other words there is no high difference between one data and another because it is smaller than the mean.

The STVA variable (X3) has a minimum value of -0.22587 which is owned by PT Bank Syariah Indonesia Tbk (BRIS). While the maximum value of 0.73906 is owned by PT Bank Mandiri (Persero) Tbk. The average value of STVA in this research sample is 0.4833339, meaning that companies that generate added value with structural capital $> 48.3\%$ can be said to have made good use of their structural capital. The standard deviation value of 0.19252843 indicates that the data distribution is evenly distributed, because the standard deviation value is lower than the average value.

The firm size variable (X4) has a minimum value of 28.48930. This value is owned by PT Bank Ina Perdana Tbk (BINA). The maximum value owned by PT Bank Rakyat Indonesia (Persero) Tbk is 34,95208. The average firm size value is 31.8179774 with a standard deviation of 1.69181385. The standard deviation value which is lower than the average value indicates that the data distribution for the firm size variable is evenly distributed.

The ROA (Y) variable has a minimum value of 0.00018 is owned by PT Bank Sinarmas Tbk (BSIM). While the maximum value on the ROA variable is owned by PT Bank Central Asia Tbk of 0.03134. For the average ROA value of 0.0120444 or 1.20%. That is, every rupiah of the assets owned by the company to carry out its business activities can generate a profit of Rp. 0.0120444 The standard deviation obtained is 0.00775300 indicating that the data distribution is homogeneous because the standard deviation value is below the average value.

Based on the results of the Kolmogorov-Smirnov Z test, it can be seen that the significance value is 0.041. This value does not meet the assumption of normality or in other words the data is not normally distributed.

It can be seen that the Asymp indigo. Sig (2-tailed) is 0.200. This value has been greater than the value of 0.05. This means that the results of the normality test on the transformed data have been normally distributed.

VAHU and STVA variables, tolerance values are 0.071 and 0.072 with VIF values of 14,138 and 13,828. So, it can be said that in the regression model multicollinearity symptoms occur.

The significance result is 0.070 which means it is greater than 0.05. So, it can be concluded that there is no autocorrelation in the research regression model because the significance value is above 0.05.

Outliers are data that do not follow the general pattern or the overall data pattern. Outliers indicate the presence of data that is not typical with

some data or data that are extreme. The data can be deleted provided that the amount of data deleted is not more than 10% of the total research sample. The sample in this study was 135 data, so only 14 data were allowed to be deleted. After the outliers, the researcher retested the classical assumptions. The total sample in this study after the outliers were carried out was 121 data.

The outlier method combined with data transformation has been carried out by researchers to become a solution so that the research model can meet the classical assumption test. However, it can be seen that the outlier method still cannot be an alternative solution. After performing outliers, the research model still cannot meet the classical assumption test, especially in the multicollinearity test and autocorrelation test. So, the researchers changed the parametric method to be non-parametric (bootstrapping).

It can be interpreted that the variables VACA, VAHU, STVA, and firm size together have an effect on profitability as measured by Return On Assets (ROA). VACA has a significance value of 0.189 so that VACA has no effect on profitability. So, the first hypothesis is rejected. VAHU has a significance value of 0.071 so that VAHU has no effect on profitability. So, the second hypothesis is rejected. STVA has a significance value of 0.001 so that the STVA variable has an influence on profitability. So, the third hypothesis is accepted. Firm size has a significance value of 0.00 so that the firm size variable has an influence on profitability. So, the fourth hypothesis is accepted.

The value in Adjusted R Square shows a value of 0.360. That is, the variables VACA, VAHU, STVA, and firm size can explain the relationship to profitability by 36%. Meanwhile, the remaining 64% is influenced by other variables besides the variables used in this research model.

Based on the results of hypothesis testing in the t-test, the VACA variable has a significance value of 0.189. So, the first hypothesis is rejected. The results of the study are not in line with the theory used, namely resource based theory, which states that the company will utilize its resources, in this case capital employed, to provide added value and improve company performance which has an impact on increasing profitability. Companies that have large physical and financial capital may not necessarily be able to manage it efficiently so that the added value generated is not comparable to the capital assets that are owned to be used. So, the size of the total capital assets owned by the company does not fully guarantee that it will increase the company's profitability.

Based on the results of hypothesis testing in the t-test, the VAHU variable obtained a significance value of 0.071. So, the second hypothesis is rejected. Companies that budget for high employee expenses should also get high value added from their employees. However, the results of this study cannot show the effect of VAHU on profitability as measured by ROA. This means that the provision of training, training, salaries, and benefits to employees is not directly proportional to the increase in

employee productivity. Thus, employees cannot create added value for the company which has an impact on increasing company profitability. This also shows that the banking companies used in this research sample still have unproductive employees so that they do not contribute to providing profits for the company. In addition, the company has not fully utilized and developed the potential of employees as an effort to increase company profitability. The results of this study are in line with the results of research conducted by Febrianty & Jovan (2018).

Based on the results of hypothesis testing in the t-test, the significance value for the STVA variable was 0.001. So, the third hypothesis is accepted. The company's structural capital helps and supports employees to produce optimal performance. Without the support of facilities, infrastructure, procedures, and a supportive work environment, employees cannot work productively. Structural capital has a close relationship with human capital. In the calculation, structural capital is calculated by subtracting value added and human capital. Thus, the smaller the value of human capital, the greater the contribution of a company's intellectual capital provided through structural capital. The results of this study are in line with the resource-based theory and hypotheses developed, which show that the company has been able to utilize resources, in this case structural capital, in an effort to create added value which results in increased company profitability. The results of this study are in line with research conducted by Muzakki (2020) which states that STVA has an effect on profitability.

Based on the results of hypothesis testing in the t test, the significance value for the firm size variable is 0.001. Thus, the fourth hypothesis is accepted. The size of a company can be reflected in the total assets listed in the company's financial statements. The results of this study are in line with the resource based theory and hypotheses developed. The larger the size of a company, the greater the resources it has. This will certainly affect the company in its ability to increase profitability. This is because companies with large sizes tend to be able to obtain agreements in terms of financial assistance from various sources. The acquisition of these funds can make the company more developed and able to carry out business activities on a larger scale. The results of this study are in line with research conducted by Adawiyah & Suprihhadi (2017) that firm size affects profitability.

CLOSING

Based on the results of the analysis described in the previous chapter, the conclusions that can be drawn from this research are the intellectual capital variable is proxied using Value Added Capital Employed (VACA), Value Added Human Capital (VAHU), Structural Capital Value Added (STVA) variables. VACA and VAHU variables have no effect on profitability. STVA variable has an effect on profitability. Firm size variable has an effect on profitability.

For further researchers are expected to use populations and samples from different sectors, for example in the manufacturing sector to obtain results that better describe the actual situation.

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