

Influence Of Intellectual Capital, Income Diversification on Firm Value Of Companies With Profitability Mediation: Indonesian Banking

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Abstract

This study aims to examine and analyze the effect of intellectual capital and income diversification on firm value mediated by profitability. This study uses secondary data from annual reports on banks listed on the Indonesia Stock Exchange in 2013-2018. There are 36 banks as a population, but only 30 banking samples in this study based on established criteria (purposive sampling) with 180 total observations. Data analysis using the WarpPLS 6.0 program. The results showed that intellectual capital had a positive effect on profitability and on firm value, income diversification had a negative effect on profitability, while it was found to have no effect on firm value, profitability had a positive effect on firm value, intellectual capital had an indirect effect on firm value mediated by profitability with partial mediation, while mediation is not supported by the indirect effect of Income Diversification on Firm Value. The results of this study can be used as material for consideration in investment decisions for investors, as well as to determine the amount of company value influenced by intellectual capital and income diversification so that it can define a competitive strategy for the company and serve as empirical evidence for further research development regarding intellectual capital, income diversification, profitability, and company value.

Keywords: *bank; intellectual capital; income diversification; profitability; firm value*

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INTRODUCTION

Banking has a considerable contribution to the country's income with its function as a Financial Intermediary institution, i.e. intermediaries between the users of funds and fund owners (Arief and Yahya, 2014). Based on the Indonesian economic report of 2018, about 70 per cent of economic financing was sourced from banking credit. Banking as a company certainly has the purpose of the operation that has been done. Theory of the firm implies that optimizing the wealth or firm value and the welfare of shareholders is the primary purpose of the company (Salvatore, 2005).

Firm value is the interpretation of the welfare of shareholders based on the company's share price. The higher amount of the share price of the book's value indicates that the higher protection of the holder, and vice versa, the lower amount of the share price of the book value

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shows the lower welfare of shareholders according to Handoko (Arief and Yahya, 2014). The price of banking stocks in Indonesia, one of which is reflected by the index of INFOBANK15. This index measures the performance of the stock price of 15 banking with high liquidity and good fundamental factors. The share price index of INFOBANK15 in 2017-2019 was increased. Still, in January and February, the year 2020 of the banking share price decreased about 27 rupiahs in January and around 44 rupiahs in February 2020 for the closing price of each stock sheet, where other price indexes also tended to decline.

Several factors can affect the effort to increase the firm value, namely: (a) good governance, (b) the ability to generate profit, (c) Investors generally avoid risk (Sudana, 2009). The strength of the company to make a profit can be seen from the profitability ratio. In improving profitability, the company's resources are optimized to generate profit, both through operational and investment activities with the creation of value-added.

The business process has undergone development, along with the development of technology and science. The business process that was based on energy (labour-based business) has also evolved into the market based on knowledge-based business so that the company based on knowledge to be the main characteristics of the company (Sawarjuwono and Kadir, 2003). According to Petty and Guthrie (Subkhan and Citraningrum, 2010), intellectual capital is one of the approaches in measuring and valuation of intangible assets. Intellectual capital is considered to be instrumental in improving the firm value and financial performance. The high amount of intellectual capital (VAICTM) shows the efficient use of the company's equity, thereby creating value-added for the company (Sunarsih, Made, and Mendra, 2012). The efficient use of intellectual capital will increase the company's market value (Hadiwijaya and Rohman, 2013). The hidden value derived from the difference between the share price and the value of the book is believed to be the intellectual capital that is appreciated and recognized by the market.

Then in increasing profitability can be done with a diversified strategy on the company's assets and revenues. Diversification is a corporate strategy to increase profitability by increasing sales volume through new product or market form (Sari, Wiratno, and Suyono, 2014). Income diversification is a bank strategy in obtaining revenues that are not only from a single source but some sources. Interest income is the main revenue of banking from the traditional activity of credit distribution, while in the diversification of banking income is looking for other new revenue sources that are expected to be more stable, i.e. non-interest income (non-interest income) (Widiasari and Pangestuti, 2015). In the last seven years (2013-2017) based on the banking statistics report, the banking revenue is still dominated by bank interest income, with an average of 73 per cent of total bank revenues.

Empirically, Intellectual Capital (IC) has a positive effect on Return on Assets (ROA) in insurance companies in Iran (Alipour, 2012), Thai banking (Tran and Hong Vo, 2018) and Indonesian banking (Octavio and Soesetio, 2019). IC also has a positive effect on Return on Equity (ROE) in manufacturing companies listed on the IDX (Wijayani, 2017) as well as in the Gulf Cooperative Council (Buallay, 2019) state banking. Research on conventional banks and Islamic banks was also carried out with IC results affecting ROE only in Islamic banks. At the same time, IC has an influence on ROA and ROE in conventional banks (Buallay, 2019). Meanwhile, the results differ in research conducted by (Aida and Rahmawati, 2015) that intellectual capital does not affect ROE in publicly traded companies in Indonesia. Then research related to Intellectual Capital and Firm Value was also conducted previously by several researchers (Arief and Yahya, 2014; Putra, 2012) found that Intellectual Capital has a positive influence on Price to Book Value (PBV) in banks listed on the IDX and Indonesian financial institutions (Sudibya and Restuti, 2014). While the results of research on the go public company (Aida and Rahmawati, 2015; Werastuti, 2014) and Indonesian go public banking (Hadiwijaya and Rohman, 2013) Intellectual capital has no significant effect on firm value. (Lestari, 2017) research found that intellectual capital has a negative effect on PBV in manufacturing companies listed on the IDX.

(Sianipar, 2015) research found that income diversification has a positive effect on Return

on Assets (ROA) of banks listed on the IDX. Not only on asset returns, the effect of Income Diversification on two proxies of profitability, namely ROA and ROE, was found to have positive results (Luu et al., 2019; Setiawan and Pramika, 2019; Sharma and Anand, 2018) in different banks, namely state bank BRICS, commercial bank Vietnam and Indonesian Sharia Bank. In contrast to the research of (Hafidiyah and Trinugroho, 2016) the results show that income diversification has a negative effect on ROA in Indonesian banks and ROE in Turkish banks (Turkmen and Yigit, 2012).

Income diversification has a positive effect on firm value as proxied by Tobin's Q value in banking (Lukmawijaya and Suk, 2015). On the other hand, this study is not supported by the research of (Aprilia and Darmawan, 2019; Natalia et al., 2016; Sianipar, 2015) that income diversification does not have a significant effect on firm value in different objects, namely ASEAN +3 banking and Indonesian banking. Research by (Hasibuan, Ar, and Endang, 2016) on the property and real estate companies, infrastructure companies (Aprilia and Darmawan, 2019) and in the consumer goods industry (Simetris and Darmawan, 2019) found that ROE has a positive effect on firm value. However, in contrast to (Cahya and Riwoe, 2018) research results, ROE has a negative effect on firm value, yet Return on Assets (ROA) has a positive effect on firm value in LQ45. Meanwhile, ROE has no significant effect on firm value in banks listed on the IDX (Murni and Sabijono, 2018).

Several previous research results show the inconsistency of the results with different research objects, namely companies in the fields of manufacturing, infrastructure, consumer goods, insurance, property with the majority of which are carried out in banks listed on the IDX, both conventional and Islamic banking and banks outside the country of Indonesia such as Turkey, Thailand and so on. Therefore, it is necessary to carry out further research related to Intellectual Capital, Income Diversification, Profitability and Company Value which focuses on banks listed on the IDX. The banking industry was chosen because the proxy for income diversification in this study is a measurement for the banking industry.

Apart from the direct effect of intellectual capital on firm value, based on the research results (Arief and Yahya, 2014; Hadiwijaya and Rohman, 2013) The intellectual capital is indirectly affected by the firm value, namely with the ratio of profitability that is proscribed on Return on Assets (ROA) or Return on Equity (ROE) which is the second relationship (Sudibya and Restuti, 2014). Besides, income diversification can increase bank profitability (Sari et al., 2014) and diversification to create firm value according to Hitt et al. (Tatra and Wesnawati, 2017) while profitability is one of the factors that can increase firm value (Sudana, 2009). Some of the empirical results above show that income diversification has an effect on profitability or firm value and profitability has an effect on firm value. So this research will analyze intellectual capital and income diversification on firm values with profitability as an intervening variable which was not carried out in previous studies using the two proxies for measuring profitability, namely ROA and ROE. The purpose of this research is to analyze and acknowledge: (1) The effect of intellectual capital and income diversification to profitability, (2) Effect of intellectual capital and income diversification to firm value, (3) Profitability effect on firm value, (4) The effect of intellectual capital of the firm value with mediated by profitability, (5) The effect of income diversification on firm values with mediated by profitability. The results of the research can be used as a consideration in investment decisions for investors, as well as to know the magnitude of the firm value is influenced by intellectual capital and income diversification to determine the competing strategy for the company.

METHODS

This research is a quantitative study with hypothesis testing using the Warp PLS 6.0 software. The population in this study is the entire banking of the Indonesian Stock Exchange (IDX) in the period 2013-2018, amounting to 36 banking. While the sampling was carried out by using purposive sampling technique, namely banks that experienced profit or in other words had

positive profitability values during the study period so that 30 banks were obtained as the research sample. Data source in the form of secondary data collected from the company's annual report through IDX official website (www.idx.co.id), company website as well as the closing stock price through the website www.duniainvestasi.com/bei/. The variables used are intellectual capital and income diversification as independent variables, firm values as dependent variables as well as profitability as an intervening variable. To measure each variable using the ratio as follows:

Table 1. Variable Operational Definitions

Variable	Proxy	Indicator	Citation
DEPENDENT			
Firm Value	PBV	$PBV = \frac{\text{Close Price Stock}}{\text{Book Value}}$	(Tandelilin, 2010)
INDEPENDENT			
Intellectual Capital	VAIC TM	$VA = \text{OUT} - \text{IN}$	Pulic at (Ulum, 2009)
		$VACA = \frac{VA}{CE}$	
		$VAHU = \frac{VA}{HC}$	
		$STVA = \frac{SC}{VA}$	
		$SC = VA - HC$	
		$VAIC^{TM} = VACA + VAHU + STVA$	
Income Diversification	IDIV	$IDIV = 1 - \frac{\text{Net Interest Income} - \text{Other Operating Income}}{\text{Total Operating Income}}$	(Laeven and Levine, 2005)
INTERVENING			
Profitability	ROA	$ROA = \frac{\text{Earning After Tax}}{\text{Total Assets}} \times 100\%$	(Kasmir, 2016)
	ROE	$ROE = \frac{\text{Earning after tax}}{\text{Equity}} \times 100\%$	(Kasmir, 2016)

Notes:

PBV : Price to Book Value

VA (Value Added) : Total Operational Income (OUT) – Total Operational Cost besides Salaries and employee benefits (IN)

VACA (Value Added Capital Employed) : VACA shows the contribution made by each equity unit to value-added in the organization (Ulum, 2009).

VAHU (Value Added Human Capital) : VAHU shows how much VA can be generated by labour funds expended (Ulum, 2009).

STVA (Structural Capital Value Added) : STAVA is used to measure the amount of SC needed to generate 1 rupiah of Value Added and is an indication of the success of SC in value creation (Ulum, 2009).

CE (Capital Employee)	: Total Equity
HC (Human Capital)	: Salaries and employee benefits
SC	: Structural Capital
VAIC TM (Value Added Intellectual Coefficient)	: VAIC TM indicates the intellectual ability of an organization (Ulum, 2009).
IDIV	: Income Diverification
ROA	: Return on Assets
ROE	: Return on Equity

Analysis of data in this research conducted consist of descriptive statistical analysis, evaluation of the Measurement Model (outer model), evaluation of structural models (Goodness of Fit/inner model) as well as test mediation with the Path analysis tool (path analysis) using software Warp PLS 6.0. Path analysis to test the direct or indirect relationships of the free variables and the bound variables examined.

Hypothesis

The research hypothesis predicts the relationship between intellectual capital and income diversification to the firm value mediated by profitability. Based on Signalling Theory, profitability is one of the information that can be a signal for outside parties, including investors listed on the company's annual report to be used in consideration of investment decisions. Stakeholder Theory is centred on the welfare of the stakeholders through the creation of Value Added that can increase the company's profit. Profitability is the result of investments made in the intellectual capital, which gives a significant usage signal (Amalia and Annisa, 2018). In this case, it is intended that when the intellectual capital owned by the company is well managed in, both in the operation of the company and in the form of investment, it will increase the profitability of the company also because the profitability is the result of intellectual capital use signal. The precipitation of the research supports it; namely, study (Alipour, 2012; Octavio and Soesetio, 2019; Tran and Hong Vo, 2018) found that intellectual capital has a positive effect on Return on Assets (ROA). (Buallay, 2019; Wijayani, 2017) also found that the intellectual capital (IC) has a positive impact on Return on Assets (ROA) and Return on Equity (ROE). Research on two types of banks, namely conventional banks and Sharia banks is also done with the result of the impact IC on the ROE only on sharia banks, while IC has an influence on ROA and ROE on conventional banks (Buallay, 2019).

H1a: Intellectual capital has a positive effect on profitability

Income diversification is a bank strategy in obtaining income that are not only from a single source but some sources. Interest income is the primary revenue of banking from the traditional activity of credit distribution, while in the diversification of banking income is looking for other new revenue sources that are expected to be more stable, i.e. non-interest income (Widiasari and Pangestuti, 2015). When the bank only focuses on the interest income from the credit distribution while the credit risk is not managed correctly, it can lower the profitability (Widiasari and Pangestuti, 2015). Some previous studies also support it. Research (Sianipar, 2015) found that income diversification has a positive effect on Return on Assets (ROA). Not only on the return of assets, but the influence of income diversification against two profitability proxies namely ROA and ROE was also found to have positive results (Luu et al., 2019; Setiawan and Pramika, 2019; Sharma and Anand, 2018). Diversification benefits the state-owned and foreign banks and more prominently on the bank more experience in the market, while the adverse influence on the financial performance of other domestic and non-governmental banks (Luu et al. 2019).

H1b: Income diversification has a positive effect on profitability

Stakeholder theory mentions that stakeholders have the authority to influence management in the management of resources and the potential of the company's own for the sake of creating

value (value creation) that can increase benefits as well for the stakeholders. Intellectual Capital is a knowledge and information that can be used to create value for the company (Purnomosidhi, 2006). The management of intellectual capital well by the company will improve the financial performance that can be a positive signal for investors so that investors are interested in investing in the company according of Putri in the journal (Amalia and Annisa, 2018). Improving the company's ability in the long term can be achieved by increasing mobilization of the company's inherent potential, mainly intangible and investing in intellectual resources, especially in human capital which is a significant factor in creating value in modern Business (Ulum, 2009: 84). Research (Arief and Yahya, 2014; Putra, 2012; Sudibya and Restuti, 2014) The result is that the intellectual capital has a positive influence on Price to Book Value (PBV). The intellectual capital component of Value Added Human Capital (VAHC), Value Added Employed (VACE) has a positive influence, while the Value Added Structural Capital (VASC) component has a negative effect on PBV (Arief and Yahya, 2014).

H2a: Intellectual capital has a positive effect on firm values

According to Hitt et al., in the article (Tatra and Wesnawati, 2017) diversification is a corporate strategy carried out at the corporate level to gain competitive advantage, or the ability to create firm value above the average competitor, through the selection and management of some different business units or businesses competing in some industries, or the product market that the research conducted by (Lukmawijaya and Suk, 2015) the result that the income diversification has a positive influence on the value of the company being proscribed with the amount of Tobin's Q Gain competitive advantage so that it will increase the value of the company compared with competitor companies.

H2b: Income Diversification has a positive effect on Firm value

Signalling theory is closely related to the provision of information for outside parties, including investors as signals that can be used in consideration in investment decisions. Profitability and the firm value are also the Inforrice of the company's annual report and financial statement. The profitability of Return on Equity (ROE) is considered a representation of the wealth owned by the shareholder or firm value (Mardiyanto, 2008: 63). Several factors can affect the effort to increase the firm value, namely: (a) good governance, (b) the ability to generate profit, (c) Investors generally avoid risk (Sudana, 2009). Research (Aprilia and Darmawan, 2019; Hasibuan et al., 2016; Simetris and Darmawan, 2019) found that Return on Equity (ROE) positively affects the firm value. However, different with the research results (Cahya and Riwoe, 2018) The ROE has a negative effect on the firm value, but Return on Assets (ROA) positively affects the firm value.

H3: Profitability has a positive effect on firm values

When the intellectual capital is managed by the company well to generate Value Added and competitive advantage so that it can increase the profitability of the company, the better profitability level reflects the prospects of the company also well. Hence, it becomes a positive signal for investors to be then able to increase the value of the company. Based on the research results (Arief and Yahya, 2014; Hadiwijaya and Rohman, 2013) The intellectual capital is indirectly affected by the firm value, namely through the ratio of profitability which is proscribed by Return on Assets (ROA) or Return on Equity (ROE) (Sudibya and Restuti, 2014). However, its influence is not more reliable than its immediate impact.

H4: Profitability mediates the relationship between Intellectual Capital and Firm Value

Income diversification is done with the goal of the company not only focus on traditional income derived from credit distribution but looking for other income that comes from non-interest income so it will be expected to increase the company's revenue source and look for a

more stable data. Expanding the company's revenue source with a fixed burden increases the profitability of the company. With increased profitability reflects a positive signal for the market to increase later the value of shares and firm value. Research (Luu et al., 2019; Setiawan and Pramika, 2019; Sharma and Anand, 2018) found that the income diversification is positively influential towards the company ROA and ROE. Then research (Aprilia and Darmawan, 2019; Hasibuan et al., 2016; Simetris and Darmawan, 2019) found that ROE positively affects the firm value.

H5: Profitability mediates the relationship between Income Diversification and Firm Value

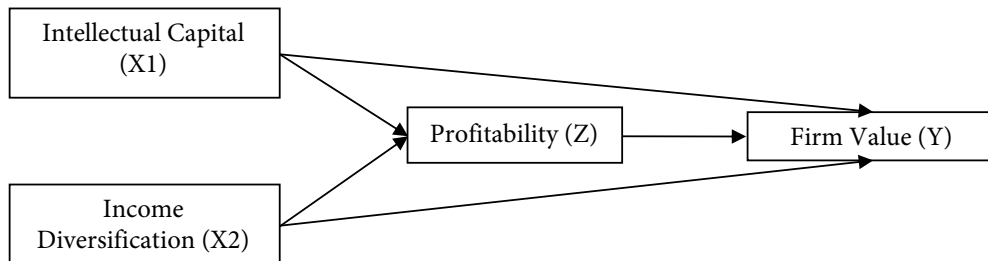


Figure 1. Research Model

RESULTS AND DISCUSSION

Analysis of the variables in this study began with the descriptive analysis shown in Table 2. Table 2 shows that in this study, there were a total of 180 observations, namely at 30 banking which was listed on the IDX with a period of 2013-2018 (6 years). The minimum intellectual capital value in DNAR in 2018 amounted to 0.996. At the same time, the maximum value is 8.903 on the SDRA 2014 with an intellectual capital average value of 2.992. Intellectual capital reflects the ability to manage existing potentials in creating Valu added. The minimum amount of the variable income diversification on MAYA 2016 is 0.034, and the maximum value is 1.163 on the BSIM 2016 with an average value of 0.368. Variable income diversification demonstrates the strategy that banking is doing in earning revenues, whether with a focus on interest income or a more significant source of non-interest income that reflects the diversification of income.

Table 2. Statistic Descriptive

Variabel	Obs	Min	Max	Mean	Std. Dev
Intellectual Capital (IC)	180	0,996	8,903	2,992	1,135
Income Diversification (ID)	180	0,034	1,163	0,368	0,242
ROA	180	0,001	0,054	0,019	0,011
ROE	180	0,010	0,341	0,112	0,071
Firm Value	180	0,142	9,809	1,557	1,137

Source: The Processed Secondary Data (2020)

Profitability on the ROA proxy has a minimum value of 0.001 on BBKP year 2017 and a maximum amount of 0.054 at BBMD 2013 with an average value of 0.019. Meanwhile, the profitability measured by the ROE proxy has a minimum value at BINA 2018 of 0.010, a maximum amount of 0.341 at the BBRI in 2013 with an average ROE value of 0.112. Profitability reflects the ability to generate profit derived from assets and equity owned. The minimum value of the firm value variable measured by PBV amounted to 0.142 in the BJBR year 2018, the maximum value of the BBRI in 2016 amounted to 9.809 with an average value of 1.557. The value of the firm can describe the magnitude of the market valuation of the company where the stock price compared to the value of the company's stock book.

Table 3. Outer Model Result

Variable	P-value	Comp. Reliab. and Cronbach's alpha
IC	< 0,001	1,000
ID	< 0,001	1,000
Profitability	< 0,001	1,000
PBV	< 0,001	1,000

Source: The Processed Secondary Data (2020)

Table 3 shows the evaluation of the Measurement Model (outer model), where the review is done by looking at the validity and reliability of variables and indicators. According to (Sholihin and Ratmono, 2013: 65) There is a requirement of Convergent Validity for the reflective construction, i.e. the value p significance $p < 0.05$. As for the results above shows the value of P-value for each variable is worth < 0.001 so that Convergent Validity is met and is said to be valid. The amount of composite reliability and Cronbach's alpha > 0.70 than can be reported reliable (Sholihin and Ratmono, 2013:73). The table above shows the value of composite reliability and Cronbach's alpha for each variable amounting to 1.000; hence it is said to be reliable.

Table 4. Model Fit

Indeks		P value
Average path coefficient (APC)	0,275	< 0,001
Average R-squared (ARS)	0,354	< 0,001
AVIF	1,170	

Source: The Processed Secondary Data (2020)

The model match test is used to determine if a model is matched with data with 3 test indexes, the Average Path Coefficient (APC), Average R-squared (ARS) where it is accepted with the requirements of the P-value of < 0.05 and Average Variance Factor (AVIF) smaller than 5. Table 4 shows APC and ARS having a < 0.001 p-value, and an AVIF value of 1.170 was less than five so that all three indexes are accepted.

Table 5. Path Analysis Result

	β	P-value	R-Square	Results
IC \rightarrow PROFIT	0,728	< 0,001	0,513	Positive Significant
ID \rightarrow PROFIT	-0,128	0,040		Negative Significant
IC \rightarrow PBV	0,365	<0,001	0,195	Positive Significant
ID \rightarrow PBV	0,020	0,393		Not Significant
PROFIT \rightarrow PBV	0,289	<0,001		Positive Significant
IC \rightarrow PROFIT \rightarrow PBV	0,227	<0,001		Partial Mediation
ID \rightarrow PROFIT \rightarrow PBV	-0,002	0,487		Mediation is not supported

Source: The Processed Secondary Data (2020)

Table 5 shows the test results of the relationship between the variables examined. The intellectual capital (IC) and profitability have a P-value value of < 0.001 with a beta of 0.728 then statistically seen that IC positively affects profitability, so H1a is accepted. The next relationship between income diversification (ID) and statistical profitability shows the beta-0.128 and P-value of 0.040, which is the income diversification negatively affect profitability, so H1b is rejected. The R-square IC and ID value of the profitability of 51.3% showed big or strong influence.

The influence of intellectual capital on the firm value statistically shows the 0.365 beta value with a P-value of < 0.001 showing positive impact, so that H2A is accepted. Meanwhile, statistically, the relationship diversification of income and firm value has a value of P-value 0.393

with Beta 0.020 indicating the absence of influence because the amount of significance is more than 0.05 so that H2b rejected. Statistically based on table 5 relations between profitability and the firm value shows a beta value of 0.289 with a P-value of < 0.001 wherein other words the profitability has a positive influence on the firm value, so the H3 is acceptable.

In this study also conducted mediation test with pathway analysis (Path Analysis) by using line C coefficient (in this case, the beta value). Line C is viewed from both relationships, namely (1) the direct link between the independent variables against the dependent (direct effect) and (2) indirect effect involving the mediation variables (Baron and Kenny, 1986). When the coefficient of line C of the second estimative result remains significant and unchanged ($c = C'$), The mediation hypothesis is not supported. When the coefficient of line C' value drops ($c' < C$) but remains significant, the form of mediation is partial mediation. When the coefficient of path C' The result decreases ($C' < C$) and changes to insignificant, the type of intervention is full mediation.

Based on the results in table 5 the indirect relationship between the intellectual capital of the firm value indicates the coefficient of line C in the direct effect more excellent than the indirect effect with a significant P-value value of < 0.001 . Thus, the influence of intellectual capital on the firm value through profitability is partial mediation, so H4 is accepted. Besides, the indirect influence of the income diversification to the firm value in table 5 shows the amount of line coefficient C in the direct effect more significant than the indirect effect with the P-value value of 0.487 remains insignificant so that mediation is not supported and H5 is rejected. As for the amount of R-Square intellectual capital contact and income diversification to the firm value through the profitability of 19.5%.

The test results show that intellectual capital has a positive effect on profitability. The result indicates that when the intellectual capital rises, followed by increased profitability and vice versa. This result is consistent with the description of intellectual capital according to (Stewart, 1997: 1) where intellectuality, knowledge, utilization of information and experience possessed by human resources in the company can be a competitive aspect. Human resources as actors in the running of the company play an essential role in achieving company goals. The management process, the company's operational activities, to decision making and policymaking are carried out by human resources. With knowledge, intelligence and experience possessed by human resources can become competitive aspects that can add value and make it different from competing companies. These results are consistent with the research results (Alipour, 2012; Buallay, 2019; Octavio and Soesetio, 2019; Tran and Hong Vo, 2018; Wijayani, 2017). Profitability is the result of investing in intellectual capital (Amalia and Annisa, 2018). The potential of the company, both in the form of human capital and structural capital that can well manage so that creating value-added for the company can increase the company's profit, so that profitability increases.

The test results show that income diversification has a negative effect on profitability. The results supported the research (Hafidiyah and Trinugroho, 2016; Turkmen and Yigit, 2012) where income diversification in the company increases, followed by decreased profitability and vice versa. This can be due to the profit gained from non-interest business activities can not close the expenditure incurred from the declining bank interest rate (Lepetit et al., 2008). This condition is seen in banks listed on the IDX during the study period. In the following three banks that have the highest average income diversification value in the 2013-2018 period, namely BSIM (1,136), BVIC (0.736) and MEGA (0.697), it shows that the income obtained by banks on non-interest income can cover interest expenses only at the two banks with the highest income diversification. Meanwhile, the non-interest income at MEGA bank was unable to cover the interest expense. Thus, banks that have a diversification value below it may experience the same condition, namely that interest expense cannot be covered by non-interest income.

When the diversification rate increases, it leads to an increase in costs incurred and perhaps diversification may not be attributed to higher returns in each circumstance (Turkmen and Yigit, 2012). Income Diversification on top banking is reflected in high non-interest income. These revenues can be obtained from commissions and investments. In contrast, investments do not

always promise high returns than the costs that have been incurred so that it may decrease the profitability of the company.

The test results show that Intellectual Capital has a positive effect on Firm Value. These results are consistent with the research (Arief and Yahya, 2014; Putra, 2012; Sudibya and Restuti, 2014) where increased intellectual capital is followed by increasing the firm value and vice versa. Increasing the company's capacity in the long term can be achieved by investing in intellectual resources (especially in human capital, which is a crucial factor in value creation in modern businesses) and increasing the mobilization of the company's inherent potential, especially intangibles (Ulum, 2009: 84). In line with Putri in the Journal (Amalia and Annisa, 2018), which states that companies that can manage intellectual capital properly will improve financial performance. Improved financial performance is a positive signal for investors so that investors will be interested in investing more in the company. Then (Hadiwijaya and Rohman, 2013) states that companies that can use their intellectual capital efficiently will increase their market value. The hidden value that comes from the difference between the share price and the book value is believed to be intellectual capital that is valued and recognized by the market. Management of potential well-owned or in other words of high intellectual capital can increase the value-added to be a positive signal for investors who can create value creation for the company.

The test results show that income diversification has no effect on firm value. The results of this study supported research (Aprilia and Darmawan, 2019; Murni and Sabijono, 2018; Natalia et al., 2016; Sianipar, 2015) which can be caused because the bank is increasingly diversified at risk and Indonesian banks benefited by a high-interest margin (Hafidiyah and Trinugroho, 2016). Income Diversification requires a higher cost with the possibility of obtaining a high yield or otherwise no higher than the cost incurred to have a risk, which according to (Sudana, 2009) to increase the firm value, one of the factors that can affect that the investor generally avoids the risk. Increasing income diversification in banking is done by increasing non-interest income. However, interest income is the primary income for banks from lending activities where the bank functions as an intermediary institution. The average IDIV value of banks listed on the IDX in 2013-2018 was around 0.368 which indicates that non-interest income is still a small proportion of interest income in the research object so that banks listed on the IDX can be said to be more focused on interest income than diversification. The small amount of the diversification value may not affect the firm's value.

The test results show that Profitability has a positive effect on Firm Value. This result is consistent with the research results (Aprilia and Darmawan, 2019; Hasibuan et al., 2016; Simetris and Darmawan, 2019). Profitability becomes one of the factors influencing in the effort to increase the firm value (Sudana, 2009). This reflects that profitability in banking can be a good signal for the market to provide a high market valuation to increase the firm value.

The results of the path analysis for the mediation test show that profitability can partially mediate the relationship between Intellectual Capital and Firm Value (Partial Mediation). Partial mediation shows that intellectual capital can directly or indirectly influence firm value, namely through profitability. These results supported the study (Arief and Yahya, 2014; Hadiwijaya and Rohman, 2013; Sudibya and Restuti, 2014) where profitability can imposition the relationship between intellectual capital relations and corporate values. The potential resources owned by the company, namely human capital and structural capital, can be managed to create added value that can improve financial performance and firm value for the company.

The results of the path analysis for the mediation test show that profitability is not able to mediate the relationship between income diversification and firm value, or in other words, mediation is not supported. This indicates that income diversification affects firm value through profitability. The results of the previous hypothesis show that the results of income diversification have a negative effect on profitability, but income diversification does not affect firm value. This indicates that profitability is not capable of the relationship between the income diversification and Firm value.

CONCLUSIONS

Profitability is influenced by intellectual capital and income diversification on banking in Indonesia. Intellectual capital has a positive influence on profitability, where the intellectual capital increases, followed by the rise in the profitability of banks and vice versa. Meanwhile, the income diversification negatively affects the profitability of banking. This can happen because the yield gained from the diversification process is not capable of covering the costs that have been incurred. Intellectual capital has a positive effect on the firm value, where an increase follows increased intellectual capital in firm value. Then the income diversification found no impact on the firm value in this study. High-income diversification is more at risk, and generally, investors avoid risk. The firm value is also influenced by profitability. Increased profitability is capable of being a positive signal for the market to increase firm value then. In addition to direct influence, it was found that profitability was able to mediate the relationship between intellectual capital and the firm value with partial mediation. At the same time, profitability has not been able to process the relationship between income diversification and corporate value in banking.

This research was conducted on 30 banks listed on the IDX in the period 2013-2018. The limitation of this research is the result of the relationship between variables in all banking which become samples without being grouped by bank type, so it is not known in detail the influence between variables in different bank types and this research the profitability is only proxied with two proxies. Then for researchers can then group the banks in clusters so that they can be known relationship between variables on each of the different clusters, or can add variables or a measurement proxy by existing empirical theories and proofs. The results of this study can be used as material for consideration in investment decisions for investors, as well as to determine the amount of company value influenced by intellectual capital and income diversification so that it can define a competitive strategy for the company and serve as empirical evidence for further research development regarding intellectual capital, income diversification, profitability, and company value.

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