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The Role of Intellectual Capital in Creating Competitive Entrepreneurship in the Era of Society 5.0

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ABSTRACT
This study aims to examine the effect of intellectual capital on firm value and the role of interaction between competitive advantage and intellectual capital on firm value. This study used secondary data sourced from the IDX for the 2010-2019 period which was tested using Stata version 12 to answer the research results. This study found that intellectual capital has an effect on firm value because well-managed human capital can produce superior performance that enhances company growth. The test results also show that competitive advantage interacted with intellectual capital can encourage competitiveness which ultimately attracts investors to invest (reflected in stock prices). The research results can have implications for academics, practitioners and business people as a reference source that intellectual capital has a big role in winning the competition so the development of resources needs to be considered.

Keywords: Intellectual Capital, Entreprenership

INTRODUCTION

At this time, the world is faced with massive technological changes. The participation of information technology in Industry 4.0 has become a major topic in advancing the world economy. Information technology elements are key to running the business and everyday life. Even though the development of Industry 4.0 is considered immature, the transformation of Industry 5.0 has been anticipated (Saxena et al., 2020). Super smart society (Society 5.0) is considered to strengthen the integration between Industry 4.0 and Society 5.0 (Tavares et al., 2022). In this era, people are required to be able to master technological innovation by integrating cyberspace and physical space in carrying out their daily lives. The increasingly competitive economic situation makes every market player need to make more efforts to have added value in the eyes of stakeholders because only businesses that have the ability to compete can survive or win the competition. Intangible asset components can be used as a powerful weapon in addition to tangible assets in creating business growth (Hanafizadeh et al., 2015). The ability to adapt quickly, human capital management actions for rapid technological developments, implementing the right strategy, and planning for the future must be carried out in this challenging time.

Currently, there are rampant layoffs (PHK) by companies increasing the number of unemployed which makes the need for effective and efficient recruitment and prioritizing information technology skills becomes very important. Reskilling is also another strategy for dealing with challenges when pressure on costs is not directly proportional to business development. This workforce development activity is the impact of the transition to adjust to change. To maintain business continuity, companies must strive to develop an awareness of intellectual capital to create a competitive advantage by implementing a knowledge-based business management pattern system (Scherngell et al., 2014).

Barney (1991) develop the theory of Resource Based Theory (RBT) which concludes that resources that are valuable, rare, cannot be imitated and replaced are strategic assets to be able to create a competitive advantage. The application of intellectual capital through innovation activities both in products and technology is an effort to create a competitive advantage that can maintain business continuity for a long time (Krivorotov et al., 2020; Wernerfelt, 1984). The ability of this company provides benefits for the company to be able to create more value than what has been invested. The company value is illustrated by the market value which is reflected in the share price which will grow in line with the investor's perception of the company.

PSAK No. 19 concerning intangible assets made the phenomenon of intellectual capital begin to develop in Indonesia (Wahyuni et al., 2022). These non-monetary assets need to be reported as a form of communicating competitive advantage to gain added value. Financial reporting must be able to explain the value of the company which is reflected in intangible assets for decision-making for stakeholders. Therefore, it is necessary to measure intellectual capital using the Value Added Intellectual Coefficient (VAIC™) developed by Pulic (2000, 2004), which is a method that does not measure directly but looks at company resources due to limitations in measuring directly.

Companies that are oriented toward intellectual capital have different values from those that are oriented toward physical assets (Lin and Huang, 2011). Disclosure of intellectual capital is very important to do along with the increasing demand for transparency in the capital market which makes it easier for investors to assess the company's capabilities.

Findings Faza and Hidayah (2014) proved that intellectual capital transparency has an effect on firm value. However, different research results are shown by Santosa (2012); Solikhah (2010); Yuniasih et al. (2010). This inconsistency indicates that the subject matter of the study needs to be discussed because there may be other variable factors that were not controlled by previous studies. Based on this background, this research will examine the effect of intellectual capital on firm value with a competitive advantage as a moderating variable in companies listed on the IDX in 2010-2019.

Resource Based Theory states that resources can determine the success of a company (Barney, 1991). This is not without reason considering that if the company's resources have unique characteristics that are not owned by competitors and have high selling value, then the value of the company can grow. Findings Mutiasari and Rizki (2020); Pratama et al. (2021); Pratama and Innayah (2021) showed that intellectual capital has an effect on company performance which has an impact on company value. A high company value will prosper investors because the shares are of high value. Therefore, based on competitive resource capital, the company can develop superior performing capabilities that bring long-term benefits.H1 = intellectual capital has an effect on firm value

Competitive advantage is a special effort made by the company compared to competing companies. The Industry 4.0 business model can be used as a strategy for building a competitive advantage (Grabowska and Saniuk, 2022). Companies that can implement it are considered superior, unique, and beneficial to consumers. Therefore, companies with competitive advantages will be able to create value for the company with innovations that have an impact on improving company performance (Tan et al., 2007). Findings Widyaningdyah and Aryani (2013) in their research showed that intellectual capital has an effect on competitive advantage, whether it is purely human intellectual capital or the result of good management. Based on research results Tang and Liou (2010) and Kamukama et al. (2011) states that financial performance increases when the company has a competitive advantage.

H2 = competitive advantage moderates the relationship between intellectual capital and firm value

METHOD

This type of research is quantitative with secondary data sources in the form of financial report data from www.idx.com. This study attempts to test the hypothesis and analyze the effect of intellectual capital on firm value with a competitive advantage as a moderating variable. The research population is companies listed on the IDX for the 2010-2019 period. The sample of this research was 3,942 companies which were obtained using a non-probability method using a purposive sampling technique or using several criteria, namely:

1. The company is listed on the IDX until 2019.
2. Non-financial and insurance companies
3. Companies that publish financial reports for 2010-2019.

Competitive advantage is a special effort made by the company compared to competing companies. Companies that have a competitive advantage are considered superior, unique, and beneficial to consumers. Thus, companies with competitive advantages will be able to create value for the company with innovations that have an impact on improving company performance. Competitive advantage is measured using the Premium Price Capability indicator (Lynn, 1994).

Companies that can generate increased sales, assets, and share capital are said to be profitable companies (Isa and Deviana, 2018). Superior human resources are considered people who must be used as managers in making practical decisions for every condition of the company. In this study, high corporate value is due to being able to manage resources optimally, measured by Price to Book Value. This ratio is calculated by comparing the market value of the stock to the company's book value.

Companies that have added value are companies that have prospects in the future or can survive in the long term. Each company will try to maximize the value of the company which has an impact on increasing share prices in the market. The value of the company does not depend on its ability to generate cash flow, but also on its operational characteristics or wealth management. Intellectual capital is the result of a combination of intellectual and human creativity which plays a very important and strategic role in the progress of the company. These resources must be utilized and developed so that their use can create added value in innovating or creating creativity that is different from competitors. This study measures intellectual capital through three components, namely VACA, VAHU, and STVA (Pulic, 2000, 2004). In testing the hypothesis, this study uses multiple linear regression. The hypothesis testing tool uses Stata version 12. The multiple linear regression equation can be formulated as follows:

$PBV = \alpha + \beta_1 IC + \beta_2 ROA + \beta_3 SIZE + \beta_4 LV + e_1$......................1)

$PBV = \alpha + \beta_1 IC + \beta_2 KK + \beta_3 IC*KK + \beta_4 ROA + \beta_5 SIZE + \beta_5 LV + e_2$..........2)

Notes:

α	= Constant
β_1 - β_5	= Variable coefficient
e_1 e_2	= Error or coefficient of influence of other variables
IC	= *Intellectual Capital*
KK	= Competitive advantage
PBV	= Firm value
ROA	= Profitability
SIZE	= Company size
LV	= Leverage

RESULT AND DISCUSSION

Table 1. Descriptive Statistics

Variable	N	Min	Max	Mean
Intellectual Capital (IC)	3,942	0.206	14.594	5.008
Competitive Advantage (KK)	3,942	0.056	0.848	0.374
Firm Value (PBV)	3,942	0.139	7.827	1.976
Profitability (ROA)	3,942	-10.5	19.47	3.762
Company Size (SIZE)	3,942	18.653	24.181	21.446
Leverage (LV)	3,942	0.126	0.937	0.491
Valid N (listwise)				

Source: Research Data, 2023

Descriptive statistical tests showing the minimum, maximum, average (mean) and standard deviation of the research variables are presented in Table 1. The independent variable in this study is intellectual capital (IC), while the moderating variable is a competitive advantage (KK) and the dependent variable is the firm value (PBV). The company value proxied through PBV has an average of 1.976 with a standard deviation of 2.005. This shows that the company recorded an average company value of 197.6%. Intellectual capital has an average of 5.008 with a standard deviation of 3.556. This shows that the average company has an intellectual capital value of 500.8%. Competitive advantage shows an average of 0.374 with a standard deviation of 0.230. This means that the company's average competitive advantage is 37.4%.

Table 2. Pearson Correlation Test Results

	PBV	IC	KK	ROA	SIZE	LV
PBV	1.000					
IC	0.0597***	1.000				
	0.0002					
KK	0.1190***	0.0667***	1.000			
	0.0000	0.0000				
ROA	0.2810***	0.1162***	0.1788***	1.000		
	0.0000	0.0000	0.0000			
SIZE	0.0134	0.0399**	0.0805***	0.1644***	1.000	
	0.3995	0.0122	0.0000	0.0000		
LV	0.0115	0.0186	0.2181***	0.3330***	0.0979***	1.000
	0.4706	0.2436	0.0000	0.0000	0.0000	

Source: Research Data, 2023

Table 2. shows the correlation coefficient of proxies for firm value, competitive advantage, intellectual capital and control variables. Intellectual capital grows along with increasing firm value (positive correlation between Intellectual capital and PBV measurements). Competitive advantage has a significant relationship with firm value. ROA, SIZE, LV have a direct relationship with PBV. All coefficients show numbers below ± 0.8, meaning that this study is free from multicollinearity between variables.

Table 3. Hypothesis 1 Regression Test Results

Variable	Coefficient	P-Value
IC	0.002	0.084
ROA	0.089	0.000
SIZE	0.065	0.001
LV	0.903	0.000
Cons	2.572	0.000
R-squared = 0.0896 Adj R-squared = 0.0886		

Source: Research Data, 2023

From Table 3. it can be seen that the coefficient of determination (R Square) of the study is 0.0896. This means that there is 8.96% variability of the independent variable (intellectual capital) on the dependent variable (firm value). While the Adjusted R Square value is 0.0886, which means that the independent variable can explain the dependent variable at 8.86% while the rest is influenced by other factors.

Intellectual capital (IC) regression coefficient of 0.002. This means that if intellectual capital increases, then the value of the company will increase by 0.002. The p-value is 0.084 (< α = 0.10) meaning that H0 is not accepted so that the hypothesis (H1) is accepted, then intellectual capital has a positive effect on firm value.

Table 4. Hypothesis 2 Regression Test Results

Variable	Coefficient	P-Value
IC	0.003	0.027
KK	0.838	0.000
IC*KK	0.003	0.054
ROA	0.086	0.000
SIZE	0.074	0.000
LV	1.075	0.000
Cons	2.387	0.000
R-squared = 0.0984 Adj R-squared = 0.0970		

Source: Research Data, 2023

Table 4. above shows that the IC*KK regression coefficient value is 0.003. This means that if the competitive advantage that moderates intellectual capital increases, then the company's value will also increase by 0.003. The P-value is 0.054 (< α = 0.10) meaning that H0 is not accepted so that the hypothesis (H2) is accepted, then competitive advantage moderates the effect of intellectual capital on firm value.

DISCUSSION

Explanation of Discussion 1

Based on the results of the hypothesis 1 test presented in Table 3 above, shows that intellectual capital has a significant effect on firm value in a positive direction (Hypothesis 1 is supported). Society 5.0 was first introduced in 2015 in an article written by Michael Rada (Yavari and Pilevari, 2020). Success can be achieved when all the resources owned by the company are optimized in achieving goals or objectives. Intellectual capital is the result of a combination of intellectual and human creativity which plays a very important and strategic role in the progress of the company. These resources must be utilized and developed so that their use can create added value for the company in innovating or creating creativity that is different from competitors. This is supported by the research results Faza and Hidayah (2014) and Mutiasari and Rizki (2020).

Explanation of Discussion 2

The results of the hypothesis 2 test are presented in Table 4 above shows that competitive advantage moderates the relationship between intellectual capital and firm value in a positive direction (Hypothesis 2 is supported). Intellectual capital that is well managed by the company will create a competitive advantage that can increase the value of the company (Barney, 1991). Increasing the value of the company has an impact on increasing profits. Thus, the effective and economical application of intellectual capital is expected to increase the demand for shares. Competition in the business world will be won by companies that can create advantages, so consumers will prefer their products over others.

Competitive advantage is influenced by good management of intellectual capital. Thus, the higher the intellectual capital, the higher the company's ability to grow and develop in creating a competitive advantage which has an impact on the profit generated by the company which is reflected in the quick ratio. According to study results Faza and Hidayah (2014) showed that intellectual capital has an influence on profitability. These findings indicate that the company's efforts to get good value from investors are influenced by high intellectual capital.

IMPLICATIONS

This research is expected to have implications for literacy for academics and practitioners regarding intellectual capital, competitive advantage and corporate value. The results of this study can also play a role in assisting entrepreneurs in facing the era of Society 5.0 which is expected to be highly competitive by integrating technology to support their business processes in the framework of value creation.

CONCLUSION

Based on the results of the regression test that has been done, it shows that intellectual capital can be a driving force for the success of a company. The results of this study prove that intellectual capital has a significant effect on firm value. The research results also prove that the interaction between competitive advantage and intellectual property has a significant effect on firm value.

Human capital can strengthen the company's structure so that it can improve performance which is an attraction for investors to invest. High investor interest can certainly increase the market value of shares. The interaction between intellectual capital and competitive advantage can also grow company value. Companies that have competitiveness because they are unique and not easy to imitate, accompanied by high consumer interest can strengthen sales lines. High revenue figures compared to competitors can certainly improve the company's image. Therefore, attention to human resources must not be overlooked because it can advance the company.

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