Research.

The Effect of Human Capital Efficiency, Structural Capital Efficiency, Relational Capital Efficiency, Capital Employed Efficiency & Rate of Growth of Intellectual Capital on Financial Performance

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Abstract. *The purpose of this research is to determine the effect of Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), Capital Employed Efficiency (CEE), and Rate of Growth of Intellectual Capital (ROGIC) on Financial Performance. A sample of 15 companies was collected and observed over five time periods. The research sample was determined according to the results of the purposive sampling method. A quantitative approach was used in this research. The data analysis method used in this research is panel data regression analysis and the data processing application is Eviews 12. The MVAIC approach is used to measure Intellectual Capital, while Return on Assets (ROA) is used as an indicator of financial performance. According to the findings of this research, HCE and CEE have a positive and significant effect on the financial performance of banking companies listed on the Indonesia Stock Exchange between 2018 and 2022. On the other hand, SCE, RCE, and ROGIC do not have a significant effect on the financial performance of banking companies. listed on the Indonesian Stock Exchange in 2018-2022. Meanwhile, the independent variables, namely HCE, SCE, RCE, CEE, and ROGIC simultaneously effect the dependent variable, namely financial performance (ROA).*

Keywords: *Capital Employed, Human Capital*, *Rate of Growth of Intellectual Capital*, *Relational Capital, Structural Capital*.

INTRODUCTION

Financial performance is the ability of an organization to achieve its financial goals (Yupitasari et al., 2022). Indonesia's financial performance has experienced an increasing trend in recent years. However, the COVID-19 pandemic has had a significant impact on the financial performance of Indonesian companies, including on the Indonesian Stock Exchange. Therefore, Indonesia's financial performance can be seen as a dynamic and continuously developing phenomenon. The Financial Services Authority (OJK) stated that the financial services sector, especially the Indonesian banking industry, remains resilient amidst high uncertainty in the global economy and financial markets, although risks need to be watched closely considering global uncertainty which causes a slowdown in economic growth, but banking conditions will remain healthy and support national economic growth. (https://rm.id).

Figure 1 data shows how the financial performance of conventional commercial banks fluctuates between 2018 and 2022, as indicated by increases and decreases in Return on Assets (ROA). A ratio of 2.55 was achieved in 2018, in 2019 the ratio decreased to 2.47. In 2020 there was another decline to 1.59. The bank's financial performance reached 1.85 in 2021. The bank's financial performance increased again to 2.45 in 2022. Figure 1 shows the financial performance of conventional commercial banks from 2018 to 2022.

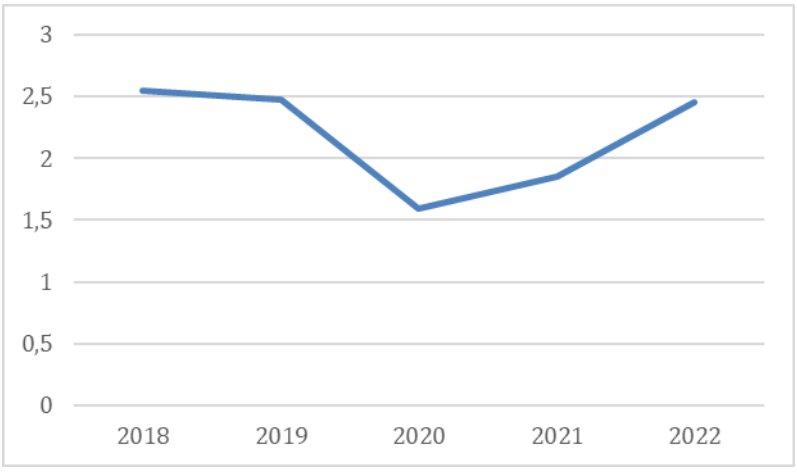

Figure 1 Financial Performance of Conventional Commercial Banks 2018-2022

Source: Central Bureau of Statistics, 2022

According to Figure 1, which shows that the financial performance of conventional commercial banks in 2018-2022 tends to experience fluctuations with decreases and increases. Because of this instability, banks must continuously improve their operations to achieve good financial performance results. Fluctuations in financial performance can reflect changes in the company's internal and external conditions. Thus, a more thorough understanding of company dynamics and the factors that effect financial performance can be achieved through adequate financial performance examination (Amir et al., 2022).

Pulic believes that the company's main assets, as stated by Ulum (2017), are capital employed and intellectual capital. According to the Resource Based View principle, which argues that a key component of competitive advantage is a company's ability to develop resource management techniques. Therefore, even though the COVID-19 pandemic has caused a number of difficulties for the banking industry, apart from the financial challenges posed by this epidemic, banks that are able to utilize their intellectual capital well will be able to face tougher challenges. Human Capital Efficiency, Structural Capital Efficiency, Relational Capital Efficiency, Capital Employed Efficiency and Rate of Growth of Intellectual Capital are several factors that effect financial performance according to a number of previous researches.

Rehman et al. (2022), Human Capital Efficiency is defined as the amount of value provided per rupiah spent on labor that results in the company's success. A research by Frikatani et al. (2022), shows that Human Capital Efficiency (HCE) has a positive effect on improving financial performance. Nugraha et al. (2021), states that HCE has a negative impact on improving financial performance. Thus, these findings contrast with the findings of research conducted by Frikatani et al al.

The percentage of added value that is taken into account by structural capital is known as Structural Capital Efficiency (Nawaz, 2017). According to a research by Akmala & Rohman (2021), Structural Capital Efficiency or SCE, has a positive effect on improving financial performance. However, research conducted by Frikatani et al. (2022) shows that SCE has no effect on financial performance.

Relational Capital Efficiency provides the necessary infrastructure and resources for HCE and SCE to utilize resources optimally and improve overall company performance (Widowati & Pardono, 2017). Rehman et al. (2021) in their research shows that Relational Capital Efficiency (RCE) financial performance is significantly improved through Relational Capital Efficiency or RCE. This is contrary to research by Raharja & Purwanto (2021) which found no relationship between RCE and financial performance.

The amount of added value from a company's financial and material assets is known as Capital Employed Efficiency, which functions as a measure of a company's effectiveness and efficiency (Ulum, 2017). Frikatani et al. (2022) in their research shows that Capital Employed Efficiency (CEE) has a positive effect on improving financial performance. has a positive effect on improving financial performance. In contrast to the research findings of Amalia & Rokhyadi (2020), their research shows a negative and significant impact of CEE on financial performance.

The difference between the value of intellectual capital in year t and the value in year t-1 is the Rate of Growth of Intellectual Capital (ROGIC) (Mutiasari & Rizki, 2020). According to research by Rahmayanti & Hidayat (2018), ROGIC effects financial performance positively and significantly. These results contradict the research conducted by Mutiasari and Rizki (2020), which failed to detect any effect between ROGIC and financial performance.

According to problem phenomena and previous research results that have not shown consistency, so they can be used as a basis and problems in research. The purpose of this research is to examine and analyze the effect of Human Capital Efficiency, Structural Capital Efficiency, Relational Capital Efficiency, Capital Employed Efficiency and Rate of Growth of Intellectual Capital on the financial performance of companies that use ROA as an indicator in banking companies listed on the Indonesia Stock Exchange with an observation period starting from 2018 to 2022.

Formulation of the Problem

1. Does Human Capital Efficiency (HCE) partially effect the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022?
2. Does Structural Capital Efficiency (SCE) partially effect the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022?
3. Does Relational Capital Efficiency (RCE) partially effect the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022?
4. Does Capital Employed Efficiency (CEE) partially effect the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022?
5. Does the Rate of Growth of Intellectual Capital (ROGIC) partially effect the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022?
6. Do HCE, SCE, RCE, CEE and ROGIC simultaneously effect the financial performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022?

LITERATURE REVIEW

Agency Theory

There are two different types of agency relationships, according to Jensen and Meckling (Irwansyah et al., 2020). These ties occur between managers and investors (shareholders), while other forms of agency relationships are between managers and creditors (bondholders). An agency relationship is said to exist, according to agency theory, when one party involves another party to conduct services, provide decisions and take authority (Sutisna et al., 2024). Managers (agents) have a personal interest in increasing the value of the company, which may conflict with the interests of the owner. Because managers often make decisions that benefit them personally, this may impact the financial success of the organization. Therefore, agency theory considers the dynamics of the manager-owner relationship and how it effects the company's financial performance.

Resource Based View Theory

"For companies, resources and products are two sides of a coin," Wernerfelt, in other words, a company's performance is effectd by its products and resources involved in the production process (Anwar et al., 2022). Companies that have resources can create barriers for competing companies, when the resources they own are managed in such a way that it is impossible for competitors to imitate these resources, either directly or indirectly. Everything that can be categorized as a company's strengths or weaknesses is included in the resources under consideration. So resource theory is very relevant as a basis for improving financial performance (Ulum, 2017).

Financial Performance

Setiawan et al. (2020), performance is a description of the level of achievement and policy actions that include goals, targets and other elements of the organization's strategic planning. The financial performance of a company is a picture of its financial health seen through financial

analysis tools, which reveals the ups and downs of the company's financial health related to employee output over a certain period of time. To maximize available resources in the face of environmental change, this is very important. (Anggraeni et al., 2020). Investors must know the financial situation of the business as shown in its financial reports (Zamzami & Afif, 2015). In line with agency theory (Jensen & Meckling) which considers the dynamics of the relationship between owners and managers and their impact on the company's financial performance (Aziz et al., 2023).

One way to show how well a business is performing financially is to look at financial reports and other accounting data. For the purpose of providing relevant data for investors in investing, financial reports are prepared. It is important to consider the company's historical, current and projected financial situation through financial ratios (Setiawan et al., 2021). Looking at profitability ratios is one way to evaluate the financial success of a company. The Return on Assets (ROA) ratio is used to evaluate the financial performance of this research. ROA provides an overview of how efficient a company is in generating profits from the assets it owns (Lutfiyanti et al., 2023).

Intellectual Capital

Silalahi (2021), Assets consisting of information and knowledge are collectively referred to as Intellectual Capital (IC). IC is an intangible asset that has the potential to improve company performance and provide competitive advantage. There are three main components that make up intellectual capital. These components include Human Capital, Structural Capital and Relational Capital. Because of its non-rival nature, ever-increasing profits, and non-additive qualities, intellectual capital is a critical resource for businesses seeking to gain and maintain a competitive advantage in their respective industries. As a result, the company's superior intellectual capital performance is thought to have an impact on financial performance (profitability).

Intellectual capital performance in this research was measured using the MVAIC approach. Modified VAIC (MVAIC) is the name of a model built according to Pulic's VAICTM model to measure Intellectual Capital (IC) performance. The three components that make up MVAIC are (Human capital, Structural capital and Relational capital) and the physical component of IC capital (Capital employed), (Nimtrakoon, 2015). As a measure of intellectual capital performance, MVAIC consists of four components, namely Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), and Capital Employed Efficiency (CEE).

Hypothesis Development

The Effect of Human Capital Efficiency (HCE) on Financial Performance

The individual knowledge that each person has in a business is reflected in the Human Capital (HC) they have. Organizations can maintain their competitive advantage by implementing Human Capital Efficiency (HCE), which is an important aspect of Intellectual Capital (IC) Efficiency (Rehman et al., 2021). A business's financial performance can be positively impacted and added value can be increased through the effective use of human resources. According to research conducted by Frikatani et al. (2022); Raharja & Purwanto (2021); and Amalia & Rokhyadi (2020), financial performance is positively effectd by Human Capital Efficiency (HCE).

H1: Human Capital Efficiency (HCE) effects financial performance

The Effect of Structural Capital Efficiency (SCE) on Financial Performance

Everything an organization owns other than humans is considered Structural Capital (SC). SCE is an abbreviation for Structural Capital Efficiency, namely the knowledge that a business maintains even when someone leaves the business (Poh et al., 2018). If companies invest more in their hierarchies and structures in a way that increases innovation and development, this will play an important role in increasing company profitability. The research results of Rehman et al. (2021); Akmala & Rohman (2021), stated that Structural Capital Efficiency (SCE) has a significant positive effect on financial performance.

H2: *Structural Capital Efficiency (SCE) effects financial performance*

The Effect of Relational Capital Efficiency (RCE) on Financial Performance

One of the key elements of intellectual capital that characterizes an organization's wealth from the perspective of its customers is Relational Capital or RC. To maximize the use of resources

and improve overall company performance, Relational Capital Efficiency (RCE) provides a means for HCE and SCE to achieve this (Widowati & Pradono, 2017). Good interpersonal relationships between the business and external parties will effect how much trust these parties have in the business, which will provide various benefits, including customer loyalty, positive reputation, and the ability to bargain to obtain the highest profits. According to research findings by Rehman et al. (2021), financial performance increases significantly through Relational Capital Efficiency, or RCE.

H3: Relational Capital Efficiency (RCE) effects financial performance

The Effect of Capital Employed Efficiency (CEE) on Financial Performance

Capital Employed (CE) is calculated from total assets minus total debt, or the book value of all assets. The amount of added value from a company's financial and physical assets is known as Capital Employed Efficiency (CEE), and functions as a measure of a company's effectiveness and efficiency (Chandra & Agnes, 2021). Companies that have made the best use of their physical assets can increase added value which has an impact on their financial success. According to research by Frikatani et al. (2022); Raharja & Purwanto (2021); and Nugraha et al. (2021), Capital Employed Efficiency (CEE) significantly and positively effects an organization's financial performance.

H4: Capital Employed Efficiency (CEE) effects financial performance

The Effect of the Rate of Growth of Intellectual Capital (ROGIC) on Financial Performance

Rate of Growth of Intellectual Capital is the average rate of increase in intellectual capital. Increasing intellectual capital is a key component in determining financial success. A company's performance will increase if it is able to manage and build the Rate of Growth of Intellectual Capital (ROGIC) effectively (Wahyuni et al., 2023). According to research findings by Rahmayanti & Hidayat (2018) and Pramitasari (2016), ROGIC significantly improves financial performance.

H5: Rate of Growth of Intellectual Capital (ROGIC) effects financial performance

The Effect of HCE, SCE, RCE, CEE, & ROGIC on Financial Performance

Intellectual material that has been modified, recorded, and applied to create assets of greater value is known as Intellectual Capital (IC). Every organization uses data, information, knowledge, explicit and implicit viewpoints and capacities, assets and resources, and perhaps policies as a form of intellectual material (Ulum, 2017). Meanwhile, the difference between the value of intellectual capital in the current year and the value in the previous year is called the Rate of Growth of Intellectual Capital (ROGIC). According to research by Rahmayanti & Hidayat (2018) and Pramitasari (2016), IC and ROGIC efficiency have a big effect on financial performance.

H6: HCE, SCE, RCE, CEE and ROGIC effect Financial Performance

Research Model

The relationship between research factors can be observed in the research model shown in Figure 2, which is according to a literature analysis research and the development of the hypotheses that have been provided.

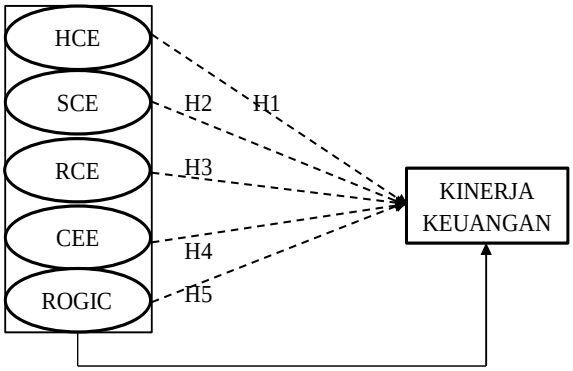

Figure 2 Research Model
Source: Processed by researchers, 2023

Description:

- - - - - ▶ = Partial effect
——— ▶ = Simultaneous effect

RESEARCH METHODOLOGY

In this research, the objects of research are banking business actors registered on the Indonesia Stock Exchange (BEI). In conducting this research, researchers chose the time period 2018-2022. A quantitative research design was used for this research design. Quantitative research methods can be understood as research methods that are according to the concept of positivism. These methods include scientific methods because they meet scientific criteria in a concrete or empirical way, objectively, measurably, logically and methodically (Sugiyono, 2019). The type of data used in this research is quantitative data. The data used in this research is secondary data. The Indonesian Stock Exchange website and the official website of each company are the sources for collecting data. This research uses data whose indicators are obtained from annual reports and financial reports of banking companies listed on the Indonesia Stock Exchange for the 2018-2022 period. This research data processing was conducted with Eviews 12, and the research used a data analysis method with panel data regression analysis.

The research population consisted of 44 companies, and a sample of 15 companies that met the following criteria was taken using a purposive sampling approach.

1. Banks listed between 2018 and 2022 on the Indonesia Stock Exchange
2. The business entity is a national scale conventional private bank.
3. All sample company financial data from 2018 to 2022 is available and published.
4. The company has positive net profit during 2018-2022

This research considers the following factors as independent variables: Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), Capital Employed Efficiency (CEE) and Rate of Growth of Intellectual Capital (ROGIC). Financial performance as measured by Return on Assets (ROA) is the dependent variable in this research. The operations of each variable are shown in Table 1.

Table 1 Operational Variables

Variable	Indicators and Measurements
Financial Performance	ROA= $\frac{\text{Net profit}}{\text{Total assets}}$ (Lutfiyanti et al., 2023)
Human Capital Efficiency	HCE = $\frac{\text{VA}}{\text{HC}}$ (Ulum, 2017)
Structural Capital Efficiency	SCE = $\frac{\text{SC}}{\text{VA}}$ (Ulum, 2017)
Relational Capital Efficiency	RCE = $\frac{\text{RC}}{\text{VA}}$ (Ulum, 2017)
Capital Employed Efficiency	CEE = $\frac{\text{VA}}{\text{CE}}$ (Ulum, 2017)
Rate of Growth of Intellectual Capital	ROGIC = $MVAICt - MVAICt_{-1}$ (Mutiasari & Rizki, 2020)

Source: Processed by researchers, 2023

Description:
VA : *operating profit + depreciation + salary expenses and employee benefits*
HC : *Human Capital*; total employee load, including training
SC : *Structural Capital*; VA - HC

RC : *Relational Capital*; marketing costs
CE : *Capital Employed*; book value of total assets
MVAIC : ICE + CEE
ICE : HCE + SCE + RCE

The panel data regression research model is used for hypothesis testing with the following regression equation:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + + \beta_4 X_{4it} + + \beta_5 X_{5it} + \varepsilon_{it}$$

Description:
Y = Financial Performance measured by ROA
α = Constant
X_1 = *Human Capital Efficiency* (HCE)
X_2 = *Structural Capital Efficiency* (SCE)
X_3 = *Relational Capital Efficiency* (RCE)
X_4 = *Capital Employed Efficiency* (CEE)
X_5 = *Rate of Growth of Intellectual Capital* (ROGIC)
β_1- β_5 = Regression coefficient
ε = Standardization error
i = Company
t = time

RESULTS AND DISCUSSION

Data Analysis Results

1. Descriptive Statistical Analysis

Gozali (2018), the four main metrics included in descriptive statistics are average (mean), minimum (min), maximum (max), and standard deviation (SD). These metrics are used in the data analysis process to categorize and provide an overview of the data. The results of the descriptive statistical tests conducted in this research are presented in Table 2.

Table 2 Results of Descriptive Statistical Analysis

	ROA	HCE	SCE	RCE	CEE	ROGIC
Mean	0.011415	2.401077	0.508751	0.024667	0.179917	0.084152
Maximum	0.031300	5.521900	0.818900	0.085300	0.341300	1.233300
Minimum	0.000200	1.223100	0.182400	0.001800	0.066200	-1.018300
Std. Dev.	0.008361	1.040586	0.167096	0.017930	0.064136	0.444531
Observations	75	75	75	75	75	75

Source: Data Processing Output with Eviews 12, 2024

The average financial performance variable (ROA) as shown in descriptive statistics in Table 2 is 0.011415, meaning that each unit of asset invested produces a profit of 1.1415% of the asset value. Companies that invest in employee salaries and benefits will have an added value of 2.401077 which is shown in accordance with the mean value of the HCE variable, which is 2.401079. A score of 0.508751 for the Structural Capital Efficiency (SCE) variable shows that the company has a strong understanding of management, organizational culture, operational systems and manufacturing methods, among other things. According to the Relational Capital Efficiency (RCE) variable which has an average value of 0.024667, banks can improve their financial performance by 2.4667% by utilizing their business relationships. According to the average Capital Employed Efficiency (CEE) variable of 0.179917, the company's added value originating from the capital it uses can reach 0.179917 times. The average increase in the company's intellectual capital was 8.4152%, as shown by the average Rate of Growth of Intellectual Capital (ROGIC) variable of 0.084152.

2. Panel Data Regression Model Analysis

According to the results of the estimation model selection test conducted, it was determined that the Random Effect Model (REM) was the most effective estimation approach used in this research. Random Effect Model (REM) is a model used to estimate panel data in situations where disturbance factors may be interrelated over time and between people (Basuki, 2021). In connection with this, the results of panel data regression analysis conducted using the random effect model approach are presented in Table 3.

Table 3 Random Effect Regression Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HCE	0.003555	0.000981	3.622497	0.0006
SCE	0.002833	0.005145	0.550585	0.5837
RCE	0.002151	0.022812	0.094293	0.9251
CEE	0.054598	0.009362	5.831902	0.0000
ROGIC	-0.000526	0.000783	-0.671732	0.5040
C	-0.008394	0.002489	-3.371895	0.0012
Effects Specification				
			S.D.	Rho
Cross-section random			0.003353	0.6818
Idiosyncratic random			0.002291	0.3182
Weighted Statistics				
R-squared	0.660251	Mean dependent var		0.003335
Adjusted R-squared	0.635631	S.D. dependent var		0.003805
S.E. of regression	0.002297	Sum squared resid		0.000364
F-statistic	26.81819	Durbin-Watson stat		1.668603
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.790559	Mean dependent var		0.011415
Sum squared resid	0.001083	Durbin-Watson stat		0.560468

Source: Data Processing Output with Eviews 12, 2024

Table 3 shows the panel data regression model equation is as follows:

$$ROA = -0{,}008394 + 0{,}003555_{it} + 0{,}002833_{it} + 0{,}002151_{it} + 0{,}054598_{it} - 0{,}000526_{it} + \varepsilon$$

3. Classic Assumption Test

According to the results of the model estimation test, the model obtained is the Random Effect Model. Therefore, the classical assumption test was not conducted in this research. The Generalized Least Square (GLS) estimation method is used in the Random Effect model. The GLS methodology is estimated to be able to overcome autocorrelation in time series and correlation between observations (cross sections). The GLS technique produces estimators that meet the requirements of the Best Linear Unbiased Estimation (BLUE) approach, which is a treatment method used to overcome violations of homoscedasticity and autocorrelation assumptions (Kosmaryati et al., 2019).

4. Hypothesis Test

Adjusted R Squared (R2) Test

The Adjusted R-squared value shows the extent to which an independent variable effects the dependent variable. Sarwono (2016) stated that this test is used to determine the suitability value or goodness of fit of the model. The closer the value is to 1, the more accurate the model. Table 4 displays the results of the Adjusted R Squared test of this research.

Table 4 Adjusted R Squared (R2) Test Results

Weighted Statistics			
R-squared	0.660251	Mean dependent var	0.003335
Adjusted R-squared	0.635631	S.D. dependent var	0.003805
S.E. of regression	0.002297	Sum squared resid	0.000364
F-statistic	26.81819	Durbin-Watson stat	1.668603
Prob(F-statistic)	0.000000		

Source: Data Processing Output with Eviews 12, 2024

According to Table 4, the variables Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), Capital Employed Efficiency (CEE), and Rate of Growth of Intellectual Capital (ROGIC) explain 63.5% of the variation on the financial performance variable (ROA), while variables not explored in this research have an effect of 36.5%.

F Test

The purpose of the f statistic is to find out whether all independent factors have an effect on the dependent variable simultaneously (Nani, 2022). With a probability value below 0.05, it can be concluded that the independent variables simultaneously effect the dependent variable. The f statistical test was conducted for this research, and the results are shown in Table 5.

Table 5 F test Simultan

Weighted Statistics			
R-squared	0.660251	Mean dependent var	0.003335
Adjusted R-squared	0.635631	S.D. dependent var	0.003805
S.E. of regression	0.002297	Sum squared resid	0.000364
F-statistic	26.81819	Durbin-Watson stat	1.668603
Prob(F-statistic)	0.000000		

Source: Data Processing Output with Eviews 12, 2024

According to Table 5, the probability value obtained is 0.000000, which means it is smaller than 0.05 (0.000000 < 0.05). From these criteria it can be concluded that Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), Capital Employed Efficiency (CEE), and Rate of Growth of Intellectual Capital (ROGIC) simultaneously effect Financial Performance. banking companies listed on the Indonesian Stock Exchange in 2018-2022.

t Partial Test

The purpose of this test is to determine whether or not there is an effect of each independent variable on the dependent variable being tested (Nani, 2022). If the probability value is less than 0.05 or if the t-Statistics is greater than the t-Table (or if the t-Statistics is smaller than -t-Table vice versa), then the independent variable has a significant effect on the dependent variable.

The $T_{statistic}$ value obtained is 1.66724 using a confidence level of 95% and degrees of freedom (df) = n-k, which can be expressed as (df) = (75 – 6 = 69). The findings of the statistical analysis conducted in this research are detailed in Table 6.

Table 6 Results of the t Statistic test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HCE	0.003555	0.000981	3.622497	0.0006
SCE	0.002833	0.005145	0.550585	0.5837
RCE	0.002151	0.022812	0.094293	0.9251
CEE	0.054598	0.009362	5.831902	0.0000
ROGIC	-0.000526	0.000783	-0.671732	0.5040
C	-0.008394	0.002489	-3.371895	0.0012

Source: Data Processing Output with Eviews 12, 2024

According to table 6, the results of the t statistical test can be concluded as follows:

Human Capital Efficiency **(HCE)**
The probability of the HCE variable is 0.0006 which indicates less than 0.05 (0.0006 < 0.05). Apart from that, the T statistic which has a positive direction of 3.622497 shows that it exceeds the T table of 1.66724 (3.622497 > 1.66724). According to these two criteria, it can be concluded that the Human Capital Efficiency (HCE) variable has a significant positive effect on the Financial Performance of banking companies listed on the Indonesia Stock Exchange for the 2018-2022 period.

Structural Capital Efficiency **(SCE)**
The probability of the SCE variable is 0.5837 which indicates more than 0.05. Apart from that, the T-statistic has a positive direction of 0.550585, which means it is smaller than the T-table value of 1.66724 (0.550585 < 1.66724). It can be concluded that the Structural Capital Efficiency (SCE) variable does not have a significant effect on the Financial Performance of banking companies listed on the Indonesia Stock Exchange for the 2018-2022 period according to these two criteria.

Relational Capital Efficiency **(RCE)**
The RCE variable has a probability of 0.9251 which is greater than 0.05 (0.09251 > 0.05). It should also be noted that the T statistic has a positive direction of 0.094293, which means the RCE variable is smaller than the T table value of 1.66724 (0.094293 < 1.66724). From these two measurements, the Relational Capital Efficiency (RCE) variable does not have a significant effect on the financial performance of banking companies listed on the Indonesia Stock Exchange between 2018 and 2022.

Capital Employed Efficiency **(CEE)**
The probability of the CEE variable of 0.0000 indicates less than 0.05 (0.0000 < 0.05), and the T statistic has a positive direction of 5.831902 indicating it is greater than T table 1.66724 (5.831902 > 1.66724). According to these two criteria, it can be concluded that between 2018 and 2022, there is a positive and significant effect between the Capital Employed Efficiency (CEE) variable and the financial performance of banking companies listed on the Indonesia Stock Exchange.

Rate of Growth of Intellectual Capital **(ROGIC)**
The ROGIC variable has a probability of 0.5040, greater than 0.05 (0.5040 > 0.05). Additionally, the fact that the T statistic is negative (-0.671732 is smaller than 1.66724) indicates that this number is smaller than the number found in the T table of 1.66724. According to these two criteria, it can be concluded that the Rate of Growth of Intellectual Capital (ROGIC) variable does not have a significant effect on the financial performance of banking companies listed on the Indonesia Stock Exchange during the 2018-2022 period.

DISCUSSION

The Effect of Human Capital Efficiency (HCE) on Financial Performance

According to the t statistical test, the human capital efficiency coefficient value is 0.003555 and the probability is 0.0006 < 0.05, so the test results support H1. According to these results, it is clear that companies with strong human resources (HR) practices have employees who are better suited to meeting the needs of their customers. By doing this, banks can increase revenue and provide better service to their customers. This is in line with resource theory (Wernerfelt), which states that increasing productivity, creativity and customer service will immediately improve financial performance. HCE assesses how well a business uses its human resources. Research by Frikatani et al. (2022); Raharja & Purwanto (2021); Gupta et al. (2020); Amalia & Rokhyadi (2020); and Putri & Nurfauziah (2019) Consistent with the results of this research, this shows that the quality of human resources significantly effects profit results. The results of this research contradict the results of Nugraha et al. (2021) and Rehman et al. (2021), who found an inverse correlation between HCE and financial performance.

The Effect of Structural Capital Efficiency (SCE) on Financial Performance

With a probability value of 0.5837 > 0.05 and a structural capital efficiency coefficient value of 0.002833, the test results do not support H2. Banking companies are very dependent on the expertise and skills of employees as well as the technology used, so even though structural capital

efficiency is important in knowledge management and operational efficiency, this does not always have a big impact on the financial performance of banking institutions. These findings support the findings of Frikatani et al. (2022), Chandra & Agnes (2021), Gupta et al. (2020), and Wijaya & Wiksuana (2018), who did not find a real relationship between structural capital efficiency and financial performance. Meanwhile, structural capital efficiency has a positive and significant impact on financial performance, according to research by Rehman et al. (2021).

The Effect of Relational Capital Efficiency (RCE) on Financial Performance

The test results of this research do not support H3, because relational capital efficiency has a coefficient value of 0.002151 with a probability value of 0.9251 > 0.05. Even though relational capital efficiency has important value in building long-term relationships and expanding market share, banking companies tend to focus more on financial transactions and services provided to customers than on long-term relationships with other parties outside the company. These results support the findings of Raharja & Purwanto (2021), who did not find a real relationship between relational capital efficiency and financial performance. Meanwhile Rehman et al. (2021) found that financial performance is positively and significantly effectd by relational capital efficiency.

The Effect of Capital Employed Efficiency (CEE) on Financial Performance

Capital employed efficiency has a coefficient value of 0.054598 and a probability value of 0.0000 <0.05, so the test results are in accordance with H4. These results indicate that banks can use their capital effectively to achieve greater rates of return, which in turn improves the company's financial performance. This is in line with agency theory (Jensen & Meckling) where management has an interest in maximizing company value to meet the interests of shareholders. Management can improve the company's financial performance and provide higher profits to shareholders by making the best use of capital value. These results are in line with research by Frikatani et al. (2022); Raharja & Purwanto (2021); Nugraha et al. (2021); Gupta et al. (2020) and Putri & Nurfauziah (2019), who found that financial performance increased significantly with capital employed efficiency. However, Amalia & Rokhyadi's research in 2020 shows that financial performance is negatively effectd by capital employed efficiency.

The Effect of the Rate of Growth of Intellectual Capital (ROGIC) on Financial Performance

The ROGIC coefficient value is -0.000526 and the probability is 0.5040 > 0.05, so the test results refute H5. These results imply that although investments in intellectual capital may provide returns in the long term through greater productivity, innovation, or product differentiation, the financial performance of banking firms may not directly reflect such benefits. This finding supports the findings of Mutiasari & Rizki (2020); Putri & Nurfauziah (2019), who found no real relationship between ROGIC and financial performance. Meanwhile, according to research by Rahmayanti & Hidayat (2018), ROGIC significantly improved financial performance.

The Effect of HCE, SCE, RCE, CEE & ROGIC on Financial Performance

According to the results of simultaneous testing, it can be concluded that Human Capital Efficiency (HCE), Structural Capital Efficiency (SCE), Relational Capital Efficiency (RCE), Capital Employed Efficiency (CEE) and Rate of Growth of Intellectual Capital (ROGIC) simultaneously effect Performance. Finances of banking companies listed on the Indonesian Stock Exchange 2018-2022. It can be seen that HCE, SCE, RCE, CEE, and ROGIC account for 63.5% of the variance in financial performance, while the remaining 36.5% is explained by other factors. This means that there are other factors besides the HCE, SCE, RCE, CEE & ROGIC variables. These factors include: operational efficiency (BOPO), credit risk (NPL), market risk (NIM), capital (CAR), liquidity (LDR) and other factors that have an effect on financial performance. With this hypothesis 6 is accepted. The results of this research are in line with research conducted by Rahmayanti & Hidayat (2018); Pramitasari (2016) in his research shows that the efficiency of Intellectual Capital (IC) and ROGIC has a significant effect on financial performance.

CONCLUSIONS AND SUGGESTIONS

Conclusions

According to the results of the analysis and discussion that have been presented, the following conclusions can be drawn:

1) Human Capital Efficiency (HCE) has a significant positive effect on the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022.
2) Structural Capital Efficiency (SCE) has no significant effect on the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022.
3) Relational Capital Efficiency (SCE) has no significant effect on the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022.
4) Capital Employed Efficiency (CEE) has a significant positive effect on the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022.
5) Rate of Growth of Intellectual Capital (ROGIC) has no significant effect on the Financial Performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022.
6) Simultaneously HCE, SCE, RCE, CEE and ROGIC effect the financial performance of banking companies listed on the Indonesia Stock Exchange in 2018-2022.

Suggestions

According to the findings of this research, a number of recommendations can be given to business actors so that they are more aware of the importance of intellectual capital as a tool for improving financial performance. This will allow them to continue to compete in the market. Investors can consider the findings of this research when making a decision whether or not to invest in a company.

In the future, it is hoped that researchers can add research objects to High-IC and Low-IC companies in the same industrial sector, as well as extend the research time period. After that, researchers can consider the possibility of using a way to measure intellectual capital that is not the MVAIC method. This is because the MVAIC method can only be assessed using financial report data, so several researches using this approach still provide conflicting findings. Apart from that, the use of dependent variables can also involve the use of additional proxies, such as Return on Investment (ROI), Asset Turnover (ATO), and Price Book Value (PBV) are examples of indicators that can be used to evaluate the success of a company.

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