

**Intellectual Capital and Future Financial Performance in Non-Cyclicals Consumer Companies Sector in Indonesia Stock Exchange****Musaroh**

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ABSTRACT

This study examined the effects of intellectual capital on the future financial performances of Consumer Non-Cyclicals companies in Indonesia. Using panel data of 60 observations for the period from 2019-2021. The sample was obtained using a purposive sampling method through some criteria. The result of the study shows that Capital Employed (VACE) affects positively and significantly the company's Future Financial Performance measured using revenue growth and employee productivity, Human Capital affects positively and significantly employee productivity, while STVA is not enough to affect the company's future financial performance. This study has several limitations, one of them is the quality of data that is still lacking, especially when the company's data is not detailed and often researchers have to drill down and make their conclusion about the data. Suggestions for further research are expected to use better data quality to ensure the robust best model to make a better conclusion that can be drawn about the effect of intellectual capital on the firm's financial performance.

KEYWORDS: Intellectual Capital; Financial Performances; Value Added Intellectual Capital TM; Growth in Revenue; Employee Productivity

1. Introduction

The company's performance in the future or future business prospects is the main concern of investors as well as the performance in the current year. Future performance is an important discussion for investors and potential investors in determining the value that is worthy to be given to the company. Intellectual capital is predicted to be a significant explanatory factor for the company's financial performance in the future. The components of intellectual capital that are predicted to have a significant effect on the company's future financial performance are Human Capital, Structural Capital, and Physical Capital. The main research variable is Future Financial Performance measured by using Growth in Revenue and Employee Productivity. Variables of Intellectual Capital are tested against the Future Performance of public companies on the Indonesia Stock Exchange by using the time to predict 1 year.

This study uses the Value Added Intellectual Coefficient Method (VAICTM) developed in 1997 where this method is designed to present information about the value creation efficiency of tangible assets and intangible assets owned by the company. VAICTM is an instrument to measure the company's Intellectual Capital performance. This approach is relatively easy and very possible to do because it is constructed from accounts in the company's financial statements such as the company's balance sheet and income statement. VAICTM method is measured using three indicators, VACE, or Value-Added Capital Employed, VAHU or Value-added Human Capital, and STVA, or Structural Capital Value Added.

The hypothesis that was put forward in the research on IC (Intellectual Capital) is that this variable can be used to predict the company's performance in the future. As we know that the IC indicator in the form of VACE shows the contributions made by each CE (Capital Employed) unit or available funds to the added value of the organization. The higher the VACE value, the higher

the investor's expectation of the company's value in the future. VACE has a positive effect on the prediction of the company's performance in the future. VAHU shows how much company-added value can be generated with funds spent on labor. This ratio shows the contribution made by each Rupiah invested in Human Capital to the value-added of the organization. The higher the VAHU value means the level of efficiency of the company can increase. The increased level of efficiency will foster great hope for investors in expect better profit growth, increased sales, and increased productivity in the future. VAHU positively influences the company's future performance. STVA measures the amount of structural capital needed to generate 1 Rupiah from the company's added value, which is an indication of how structural capital is successful in creating value. The more successful structural capital in creating value for the company, the greater the investor's expectations for the company's development in the future. The Structural Capital Value Added has a positive effect on the company's future performance.

Previous research that used the VAICTM method in measuring Intellectual Capital included Hatane (2018), Terblanche (2019), a study conducted by Tan (2007), and Ulum (2008). The study took the company's financial performance as the main variable, where the results showed varied findings. Some of these studies have not distinguished the application of the model of relations to different types of industries, where it is possible that in different types of industries, the conditions of Intellectual Capital also carry different variations in explaining variations in the company's Performance variables in the future.

Based on the description of the problem background, this research objective set is: (1), this research tries to know the influence of IC (Intellectual Capital) which is measured by VACE or Value Added Capital Employed, VAHU or Value added Human Capital, and STVA or Structural Capital Value Added to Future Performance variable with Growth in Revenue;



(2) this research tries to know the influence of variable of IC (Intellectual Capital) which is measured with VACE or Value Added Capital Employed, VAHU or Value added Human Capital, and STVA or Structural Capital Value Added to Future Performance variable with Employee Productivity. The expected benefit of this research is that investors increasingly pay attention to the importance of IC (Intellectual Capital) in the process of value creation of a company. In addition, the results of this study are expected to further explain the IC theory of measurement methods and approaches that emphasize financial and nonfinancial indicators specifically for individual companies. In the end, this research is expected to help measure and predict the company's performance in the future.

Several findings in companies listed on the Indonesia Stock Exchange show that the attention of business people in understanding the importance of IC (Intellectual Capital) for the creation of corporate value is not yet adequate. Other findings indicate that there are not many investors who pay attention to the factor of the size of the knowledgeable workers and the productivity of human resources in determining the value of the company that will be the choice of investing. Future performance should be an important discussion of investors and potential investors in determining the value that is worthy to be given to the company. Some of the results of previous research indicate that there are variations in the results of research, which requires alternative research to test the theory of Intellectual Capital with different objects and times as well as classifying the object of research based on the similarity of the type of industry. Based on the description of the identification of the problem, the problems that will be answered in this study are (1) how is the influence of IC (Intellectual Capital) variables measured by VACE or value added capital employed on future performance variables with the proxy growth in revenue; (2) how is the influence of IC (Intellectual Capital) variables measured by VAHU or value-added human capital on future performance variables with the proxy of revenue growth; (3) how is the influence of IC (Intellectual Capital) variables measured by STVA or Structural Capital Value Added. against Future Performance variables with the proxy Growth in Revenue; (4) how is the influence of IC (Intellectual Capital) variables measured by VACE or value

added capital employed on future performance variables with employee productivity proxies; (5) how is the influence of IC (Intellectual Capital) variables measured by VAHU or value-added human capital on future performance variables with the employee productivity proxy; and (6) how is the influence of IC (Intellectual Capital) variables measured by STVA or structural capital value added on future performance variables with employee productivity proxies.

2. Related Works and Literature Review

2.1. Intellectual Capital Phenomenon (Intellectual Capital).

The current attention to management practices regarding intangible assets currently has increased significantly. An approaches-used for the measurement of intangible assets is Intellectual Capital (IC), which has become the focus of attention in various fields such as management, information technology, sociology, and accounting. One of the problems that attracted the researcher's attention is the benefit of Intellectual Capital as an instrument to determine company value. So far, the distinction between intangible assets and IC has been disguised in the intangible sense, both of which are referred to in Goodwill terms. This can be traced in the notes and a general understanding of the intangible value, which is usually named Goodwill (IFA, 1998).

Research on intellectual capital has been carried out by academics from various countries, and its development has led to many frameworks for classifying and measuring the concept of intellectual capital. Petrash (1996) developed a classification model known as the Value Platform Model. This model classifies intellectual capital as an accumulation of human capital, organizational capital, and customer capital. Edvinsson and Malone (1997) developed the Skandia Value Scheme, which classifies intellectual capital into structural capital and human capital. Stewart (1997) classifies intellectual capital into three basic formats, namely (1) human capital, (2) Structural capital, and ((3) Customer Capital. According to Tan (2007) methods of measuring intellectual capital can be grouped into two categories (1) categories that do not use monetary measurements and (2) categories that use monetary measures. The framework for classifying intellectual capital can be explained in Table 1 as follows:

Table 1
The framework for Classifying Intellectual Capital

Framework	Classification
Balanced Scorecard, developed by Kaplan and Norton (1992)	Internal Process Perspectives Customer Perspectives Learning and Growth Perspectives Financial Perspectives
Classification of Resources, developed by Haanes and Lowendahl (1997)	Competence Relational
Classification of Resources, developed by Lowendahl (1997)	Competence Relational
Intangible Asset Monitor, developed by Sveiby (1997)	Internal Structure External Structure Competence of Personnel
Skandia Value Scheme, developed by Edvinsson and Malone (1997)	Human Capital Customer Capital Organizational Capital
Three Categories of Knowledge, developed by Danish Confederation of Trade Unions (1999)	People System Market
VAIC™, developed by Pulic (1999)	Efficiency of Human Capital Structural Capital Efficiency Capital Employed Efficiency



2.2. Intellectual Capital (IC) and Corporate Performance.

In the context of the relationship between IC (intellectual capital) and financial performance, stakeholder theory is more appropriately used as the main basis to explain the relationship between IC and company performance. According to stakeholder theory, companies have stakeholders, not just shareholders. Stakeholder groups include shareholders, employees, customers, suppliers, creditors, government, and society. A growing consensus in the context of stakeholder theory is about how earnings would be given to shareholders, while the value added is an accurate measure created by the stakeholders, and then distributed to stakeholders alike.

Value added would have higher accuracy which is associated with returns, considered as a measure for shareholders so that both values added and return can explain about power of stakeholder theory about organizational performance measurement. Globalization, technological innovation, and business competition have forced companies to change the way they do business. For the company continues to survive, companies must quickly change its strategy from a business that is based on the workforce to a knowledge-based business where the main characteristics of the company are science-based companies. In line with the paradigm of managing a knowledge-based economy, the prosperity of a company will depend on the creation of transformation and capitalization of knowledge itself. New economic development is controlled by information and knowledge. It will bring our attention to intellectual capital.

The domain of concern of academics and practitioners is the benefits of intellectual capital as a tool to determine company value. Research on intellectual capital is a challenge that deserves to be developed. Therefore, some authors suggest not forming a management and reporting system that will reduce the relevance of the system because the system cannot provide important information guidance in the process of managing the company based on intangible knowledge and resources. The difference between intangible assets and intellectual capital is not clear because intellectual capital is perceived to be the same as goodwill, even though they are different. This fact can be traced back to the early 1980s when the general idea of the value of intangible assets was always named goodwill since business and accounting practices were applied. However, traditional financial practices do not reveal the identification and measurement of these intangible assets in organizations, particularly knowledge-based organizations. New intangible assets such as staff competency, customer relations, simulation models, computer systems, and administration do not gain recognition in traditional financial models and management reporting. This is very interesting because traditional intangible assets such as brand capital, patents, and goodwill are rarely reported in financial statements.

IAS (International Accounting Standard) 38 about intangible assets prohibits brand recognition that is made internally such as publishing titles and customer lists. Intellectual capital is still not widely known in Indonesia. Until now, companies in Indonesia tend to use conventional bases in

building their businesses so the products they produce are still poor in technology content. In addition, these companies have not given more attention to human capital, structural capital, and customer capital. All of this is a building element of the company's intellectual capital. This conclusion can be taken because of the lack of information about intellectual capital in Indonesia. Companies in Indonesia will be able to compete if they use competitive advantages obtained through creative innovations produced by the company's intellectual capital. This will encourage the creation of products that are increasingly popular with consumers.

Intellectual capital has become a very valuable asset in the modern business world. This poses a challenge for financial practitioners to identify measure and disclose it in financial statements. In addition, research on intellectual capital can help the Indonesian Financial Services Authority to create better standards for the disclosure of intellectual capital. Traditional financial reports are perceived as failing to present this important information. Companies, whose assets are mostly in the form of intellectual capital such as public consultancy institutions, do not disclose this information in their financial statements. This will be misleading because it can affect company policy. Therefore, the financial statements must be able to reflect the existence of intangible assets and the value that can be recognized.

The large difference between the market value and the reported value will make financial statements useless for decision-making. The concept of intellectual capital has received great attention from various groups, especially financial practitioners and academics. This phenomenon requires them to seek more detailed information regarding matters relating to the management of intellectual capital. Starting from, how to identify measure up to reveal intellectual capital in the company's financial statements. The technique of measuring intellectual capital is still growing and many studies are trying to apply the concept of competitive advantage.

The classification and measurement model conducted in this study uses Pulic's model. Bontis (1998), states that intellectual capital is very important in improving organizational capabilities and the research aims to develop models and measurements of intellectual capital. The study also used questionnaires in data collection. Bontis (2000) also states that intellectual capital has a positive effect on the performance of companies in Malaysia without regard to the type of industry. Companies in Indonesia pay little attention to intellectual capital because they cannot see the benefits of thinking in their investment services. The company's intangible assets are related to the company's strategy and in the form of intellectual capital in the company.

Petty (2000), states the importance of empirical theories and contributions related to the measurement and reporting of the company's intellectual capital. Intellectual capital is used to reduce employee work demands and improve employee capabilities. Another theory states that the method of measuring intellectual capital is grouped into two groups, namely monetary measurements and nonmonetary measurements. Based on the



measurement model developed, each has advantages and disadvantages so that to choose the model that is most appropriate to use is inappropriate because the measurement is only a tool that can be applied to the situation and conditions of the company with certain specifications.

The results show that human capital will have a stronger relationship with structural capital if the relationship is direct. In addition, the research also shows that customer capital and structural capital can function as intervening variables in the relationship between human capital and business performance, while structural capital can be used to mediate customer capital and business performance relationships. Other research results

show that the practice of intellectual capital disclosure in the annual report based on the results of content analysis on the annual report can be concluded that the average number of intellectual capital attributes expressed in the annual report is 14 attributes (56 percent). The practice of disclosing intellectual capital between companies varies greatly. This percentage illustrates that publicly listed companies already have an awareness of the importance of intellectual capital for improving corporate performance in 150 companies listed on the Singapore Stock Exchange. The results of previous studies discussing the relationship between intellectual capital and company performance are presented in Table 2 below.

Table 2

Research Results on the Relationship between Company Performance and Intellectual Capital

Information about research	Research result
Wendy Terblanche, C. d. V. (2019), The purpose of this paper is to examine whether preparing an integrated report and/or whether cross-listing is associated with more IC disclosure.	The findings show that companies preparing an integrated report disclose more IC information, and that companies exposed to international capital markets through cross-listing do not disclose more IC information.
Hatane (2018), exploring the quality of Intellectual Capital Disclosure (ICD) in the modern economic era. Using the data from both agricultural sector and resources sector listed in The Stock Exchange of Thailand.	Market Share has a significant influence on the quality of Human Capital Disclosure and Intellectual capital disclosure. Firm Size has an influence on all aspects of ICD (Human capital disclosure, Internal Capital Disclosure, and External Capital Disclosure).
Bontis, who conducted research in 1998, in Canada. The method used is the Questionnaire, and uses the partial least square method.	The results show that human capital is related to structural capital and customer capital. Customer capital is related to structural capital. Another finding is that industry performance is related to structural capital and customer capital.
Bontis, who conducted research in 2000, in Malaysia. The method used is a questionnaire with partial least square analysis technique.	The results show that human capital is related to structural capital and customer capital. Customer capital is related to structural capital. Other findings are structural capital related to industrial performance.
Riahi and Belkaoui in 2003 conducted research in the USA, using the regression method with the data used is the company's annual report data.	The results show that intellectual capital is significantly related to the performance of multinational companies in the USA.
Research conducted by Firer and Williams in 2003 in South Africa. The method used is VAICTM with linear regression analysis technique.	The results show that VAICTM relates to the company's performance as measured by using the rate of return on total assets, total asset turnover, and the ratio of market value to the book value of the company.
Research conducted by Astuti and Sabeni in 2005, located in Indonesia. This study was carried out using Structural Equation Modeling and Amos data questionnaires and data analysis techniques.	The results show that human capital is related to structural capital and customer capital. Customer capital and structural capital are related to industrial performance.
Research conducted by Mavridis in 2004 conducted in Japan. This research was conducted using the VAICTM method and regression analysis techniques.	The result of the research that has been done is that the VAICTM method can be used to rank or provide an assessment of banking companies in Japan based on the performance of intellectual capital.
Research conducted by Abdolmohammadi in 2005 in the USA. The method used is content analysis.	The results showed that the frequency of disclosure of elements of intellectual capital increased from year to year. The new industry group reveals more information on intellectual capital than the old industry.

Intellectual capital can be explained through several assumptions. These assumptions are intellectual capital about the company, the assumptions of intellectual capital about strategies, the assumptions of intellectual capital about the organization or management, and the assumptions of intellectual capital about indicators. Based on the assumption of intellectual capital about the company from the point of view of business development, it can be explained that intellectual capital emphasizes the competency perspective because intellectual capital focuses on internal growth drivers. These internal growth determinants are in the form of resources, capabilities, and competencies, which are expressions of experience and collective decision-making

capabilities that have historically been formed and attached to the company. Production potential is more important than the market. Based on the point of view of the company's situation, it can be explained that intellectual capital sees companies as a series of capabilities or competencies and knowledge resources, which are incorporated through the complementary nature and linkages of these resources. These resources are mutually dependent on each other. Competitiveness in the concept of intellectual capital is the ability to continuously build capabilities and competencies, which have a historical flow and are therefore able to create unexpected new products and products.



Based on the assumption of intellectual capital about strategy, it can be explained that the basic idea of the strategy of intellectual capital is a competency-based strategy. The strategic process is (1) management determines a narrative that shows the company's identity and ambition; (2) determination of characteristics, competency capabilities, and desired linkages; (3) objectives and activity plans are prepared to achieve these objectives. The purpose of strategy in intellectual capital is the narrative of the desired future identity. Strategic agents in intellectual capital are management in arranging future metaphors and narratives, innovation, capabilities, and employee competencies.

The assumption of intellectual capital regarding organization and management can be seen from several main parts, namely the main tasks of strategic management, management work, competence, competency development, management, and organizational effects. Intellectual capital builds organizations that can develop products and meet consumer needs that have never been realized before. Management controls the company by supporting creativity and motivating itself or employees and building collective assets that are combined and made to cooperate. Competence in intellectual capital is the strength of an organization that will appear in every combination of markets and consumers. Competency development is needed to strengthen the realization of the ambitions listed in the knowledge narrative. Management determines excellence in terms of knowledge, capabilities, and competencies to be achieved in the future. Implementation in practice will involve a large group of employees. The rationality of the indicator model in intellectual capital is to find complementary relationships between knowledge resources and competencies to realize the company's narrative in knowledge management. The relationship between indicators and practice in intellectual capital is that intellectual capital seeks to create serious behavior in organizational work that combines various types of wealth such as human and technology.

2.3. Intellectual Value-Added Coefficient (Value Added Intellectual Coefficient) or VAIC™

An indicator is an object of measurement, such as customer satisfaction, customer loyalty, and employee productivity. The difficulty in measuring intellectual capital is because intellectual capital cannot be quantified in units of numbers. Bornemann (2008) identifies three categories of intellectual capital, namely, (1) human capital, which includes knowledge, skills, motivation, and team relations; (2) stakeholder and customer relationship capital; and (3) structural capital which includes database, organizational structure, and superior procedures; (4) image or reputation capital, where this category affects other indicators. Recent business developments show that business logic is based on achieving successful growth and value creation in the long run. The fundamental problem is that traditional indicators of business success, such as increased income, cash flow, profits, market share, and technological leadership are unable to provide information about whether the company has created value for the owner of the company or shareholders or not. Only when a company can produce

something more than the resources invested, we can talk about value creation.

The VAIC™ method was developed by Pulic (1999) and is designed to provide information about the value creation efficiency of tangible assets and intangible assets owned by a company. VAIC™ is an instrument to measure the company's Intellectual Capital performance. This approach is relatively easy and very possible to do because it is built from accounts in the company's financial statements such as the company's income statement and balance sheet. This model starts with the company's ability to create value added (VA). Value added is the most objective indicator to assess the business success of a company and show the company's ability in value creation. VA is calculated as the difference between output and input.

The output represents revenue and includes all products, both goods, and services sold in the market, while input includes all expenses used in obtaining revenue. The important thing in this model is that the employee load is not included in the input. Considering its active role in the process of value creation, Intellectual Capital which in this case is represented by labor cost is not counted as costs and is not included in the Input component. Seeing this, the Pulic model treats labor as an entity of value creation or Value Creating Entities. Value Added is influenced by the efficiency of Human Capital (HC) and Structural Capital (SC). The other relationship from Value Added is Capital Employed (CE), which in this case is labeled with VACE. VACE is an indicator for VA that is created by one unit of physical capital.

The VAIC™ calculation stage is (1) calculating value added in a way, the output is reduced by input, in which the calculated output includes total sales and other income, while input calculated includes sales costs and other costs, except employee expenses; (2) calculating Value Added Capital Employed (VACE) by dividing the value added with Capital Employed. Capital Employed is available funds, wherein this research is measured by the company's net profit; (3) calculating Value Added Human Capital (VAHU) by dividing the value added by human capital. Human capital is calculated through the number of employee expenses paid by the company; (4) calculating Structural Capital Value Added (STVA). This ratio measures the amount of structural capital needed to generate 1 Rupiah from value-added and is an indication of how structural capital is successful in value creation. STVA is calculated by dividing structural capital with added value, while structural capital is calculated from value-added minus human capital; (5) calculating VAIC™ or Value-Added Intellectual Capital by adding three previous components, VACA, VAHU, and STVA. VAIC™ indicates the intellectual ability of organizations that can also be considered Business Performance Indicators. The advantage of the VAIC™ method is that the data needed is relatively easy to obtain from various sources and types of companies. The data needed to calculate various ratios is the standard financial numbers that are generally available in the company's financial statements.



2.4. The Relationship between Intellectual Capital and Company's Future Performance

The hypothesis that has been put forward in research on IC (Intellectual Capital) is that this variable can be used to predict company performance in the future. As we know that the IC indicator in the form of VACE shows the contributions made by each CE (Capital Employed) unit or available funds to the added value of the organization. The higher the VACE value, the higher the investor's expectation of the company's value in the future. VACE has a positive effect on the prediction of the company's performance in the future.

VAHU shows how much company-added value can be generated with funds spent on labor. This ratio shows the contribution made by each Rupiah invested in Human Capital to the value-added of the organization. The higher the VAHU value means the level of efficiency of the company can increase. The increased level of efficiency will foster great hope for investors in expect better profit growth, increased sales, and increased productivity in the future. VAHU positively influences the company's future performance.

STVA measures the amount of structural capital needed to generate 1 Rupiah from the company's added value, where this ratio is an indication of how structural capital is successful in creating corporate value. The greater the structural capital in creating value for the company, the greater the investor's expectations for the company's development in the future. The Structural Capital Value Added has a positive effect on the company's future performance. The Structural Capital Value Added has a positive effect on the company's future performance.

Based on the above theoretical and theoretical studies, the hypotheses developed in this study are (H1); IC (Intellectual Capital) variable measured by VACE or Value Added Capital Employed has a positive effect on Future Performance variables with Growth in Revenue proxy (H2); IC (Intellectual Capital) variables measured by VAHU or Value added Human Capital have a positive effect on Future Performance variables with the Growth in Revenue proxy (H3); IC (Intellectual Capital) variables measured by STVA or Structural Capital Value Added have a positive effect on Future Performance variables with Growth in Revenue proxy (H4); IC variable (Intellectual Capital) measured by VACE or Value Added Capital Employed has a positive effect on Future Performance variables with the Employee Productivity proxy (H5); IC (Intellectual Capital) variables measured by VAHU or Value added Human Capital have a positive effect on Future Performance variables with the Employee Productivity proxy (H6); IC (Intellectual Capital) variables measured by STVA or Structural Capital Value Added have a positive effect on Future Performance variables with Employee Productivity proxies.

2.5. Profile of the Consumer Non-Cyclical sector on the Indonesia Stock Exchange

The Consumer Non-Cyclicals sector is part of the manufacturing industry that produces products that can be directly used or consumed. The consumer non-cyclical sector is

an industrial sector consisting of the food & beverage sub-sector, cigarette sub-sector, food and staples retailing sub-sector, and nondurable household products sub-sector. The manufacturing industry experienced an average growth of 4% to 6% from 2012 to 2016. While Indonesia's gross domestic product (GDP) growth was in the range of 4.88% to 6.03% during the period from 2012 to 2016. Non-oil and gas manufacturing industries or this consumption industry contributes around 17% to 18% of Indonesia's gross domestic product from 2012 to 2016. In 2016, this consumption sector contributes around 18.20% of Indonesia's gross domestic product. When compared to other industrial sectors, the consumption industry sector provides the largest contribution compared to the other sectors. When compared with the contribution of the agricultural sector, this consumption sector is still larger. The agricultural sector contributes around 13.45% of Indonesia's gross domestic product, while the consumption sector is still higher at around 18.20% of the gross domestic product when compared to the retail sector which also contributes not less to Indonesia's gross domestic product, whose value is only around 13.2% of Indonesia's total gross domestic product.

Through an overview of industrial sector data sourced from the trade ministry, we get a picture that the manufacturing industry sector is very important for the Indonesian economy, especially the consumer goods industry sector. The total contribution of the manufacturing sector is 20.51% of the total gross domestic product of Indonesia. With the large contribution of the non-oil and gas manufacturing industry, this sector is quite attractive to investors who will invest in the capital market. Indonesia feels concerned that this sector continues to grow and can always contribute better to the country. If we look at this sector more deeply, the food and beverage industry has the largest growth of 8.46 percent. But when compared to the growth of the food and beverage industry in the previous years, this industry experienced a decline. For example, in 2012 the food and beverage industry experienced a growth of 10.3%, while in 2014 the industry experienced a significant decrease of 4.07%. In 2015, it experienced an increase again to 9.49% and this growth experienced a decline until 2016, which grew by 8.46% year.

Although the growth value of this sector tends to decline from 2012 to 2016, the food and beverage industry remains a significant contributor to Indonesia's gross domestic product compared to other manufacturing sectors. In 2012 the food and beverage sector contributed 29.5% of the total gross domestic product of Indonesia. This condition continues to increase until 2015 the food and beverage sector contributed around 30.84% and 32.84% in 2016. Based on this description it can be seen that the food and beverage industry sector is one of the most important sectors of the manufacturing industry. The manufacturing industry is the industry that contributes most to the value of Indonesia's gross domestic product. So, it is no exaggeration to mention that the consumption sector, especially food, and beverages, is a leading sector owned by Indonesia.



In addition to being marketed in Indonesia, this industry also exports quite a lot to other countries. Indonesia's export value for the non-oil and gas manufacturing industry sector was USD 153,043 million in 2012, while the import value for this sector in the same year was USD 149,125.3 million. Based on this value Indonesia's trade balance experienced a surplus of USD 3,917.7 million. The trend of surplus trade balance values from this sector continues to be maintained and even increased. Until 2016, Indonesia's trade balance in this sector had a surplus

of USD 15,167.2 million. Based on these data, it can be concluded that Indonesian products from this manufacturing sector have gained the trust of the international community. It is not surprising that many investors are paying attention and are interested in this sector by buying shares or even taking part in building this sector. Whereas for the government the greater size of this sector will certainly have a positive influence on the government, especially the Indonesian economy.

3. Material & Methodology

3.1 Data

Table 3
Operational Definition of Variables and Sources

Variable	Operational Definition of Variable	Sources
Dependent Variable		
Growth in Revenue	Increase in earnings after tax of the year T minus the income of the company in year T-1 divided by the company's income period T-1 or the previous period	www.idx.co.id and annual report
Employee Productivity	Ratio between the Number of Production Unit of a company divided by the Number of Working Hours, where this measure shows the level of employee productivity based on the number of production units produced	www.idx.co.id and annual report
VACE (Value Added Capital Employed)	VACE is indicator for Value Added created by a unit of physical capital. It shows the contribution made by each unit of CE (Capital Employed) or funds available into organization value added.	www.idx.co.id and annual report
VAHU (Value Added Human Capital)	VAHU shows how much added value a company can generate with the funds spent on labor. This ratio shows the contribution made by each Rupiah invested in Human Capital which added to organization value.	www.idx.co.id and annual report
STVA (Structural Capital Value Added)	The STVA measures amount of structural capital needed to generate 1 Rupiah from the company's added value, which is an indication of how structural capital affect corporate value.	www.idx.co.id and annual report

The population is Consumer Non-Cyclicals Sector listed on the Indonesia Stock Exchange. The total number of this sector as of December 2021 is 118 companies. The sample using a purposive sampling method, which the criteria are:

- Consumer Non-Cyclicals company sector has been and still listed on the Indonesia Stock Exchange from 2018-2021*
- Data collection from 2018 is used to predict the company's condition in 2019, the period of this research is 2019-2021.*
- The company has the required data in calculating intellectual capital and the dependent variable in this research that is employee productivity and revenue growth of the company.*
- Companies that are used as samples are included in the Food and Beverages sub-sector and have positive profits. The number of companies in the Food and Beverages sub-sector as of December 2021 was 62 companies.*

3.1 Method

The data collection technique is the documentation technique. This technique is using historical data derived from documents and records relating to the research object. The secondary data were obtained from the Indonesian Capital Market Directory, www.idx.co.id, and annual report data listed

on the Indonesia Stock Exchange. This research uses multiple linear regression analysis. Therefore, before hypothesis testing, the data prerequisite test is performed, including Normality testing, Multicollinearity testing, Heteroscedasticity testing, and Autocorrelation testing. Normality testing is a test about the normal distribution of data. Normality tests in this research will be used in different tests or residual regression analyses. In this study, to test the normality of the data and residual used by Kolmogorov-Smirnov statistical test. Both data and residuals are normally distributed if the significance value obtained is equal to or greater than the degree of confidence by 5%.

The second possibility of deviations from the classical model is multicollinearity in regression model results. This means between independent variables there is a model which has a perfect relationship or near perfect. It will have consequences if the standard error of estimate will tend to increase with the increase of independent variables, the level of significance used to reject the null hypothesis will be greater, and the probability of receiving the wrong hypothesis, β errors will also be greater. The consequence is regression model is not valid for estimating dependent variable value. Whether data contains multicollinearity or not, can be seen from tolerance and VIF values. If the tolerance value is less than 0.1 and VIF is greater than 10 then the data is declared to contain multicollinearity.



The next classical assumption deviation is the existence of heteroscedasticity, namely the variable variance contained in the model is not the same or constant. The consequence of heteroscedasticity is that the estimator obtained is inefficient, both in small and large samples, even though the estimator obtained describes the population. This is due to the inefficient variance. The heteroscedasticity test is carried out using the Glejser test. The Glejser test is done by regression of the absolute value of the residual to the independent variable. Data does not have heteroscedasticity problems if the significance value is greater than the Alpha of 5%.

Autocorrelation is often known as serial correlation and is often found in time series data. The regression model detected by autocorrelation can result in a bias in the confidence interval and inaccuracy in the application of the F-test and T-test. Detection of autocorrelation can be seen from the magnitude of Durbin-Watson (DW). The decision-making is as follows, (1) If $DW > DU$, autocorrelation does not occur; (2) If $DW < DL$,

autocorrelation occurs; (3) If $DL < DW < DU$, it cannot be detected whether autocorrelation occurs or not.

$$GR_t = \beta_0 + \beta_1 VACE_{t-1} + \beta_2 VAHU_{t-1} + \beta_3 STVA_{t-1} + \varepsilon \quad (1)$$

$$EP_t = \beta_0 + \beta_1 VACE_{t-1} + \beta_2 VAHU_{t-1} + \beta_3 STVA_{t-1} + \varepsilon \quad (2)$$

Where GR_t is growth in revenue in the t period; EP_t is employee productivity in the t period. $VACE_{t-1}$, $VAHU_{t-1}$, and $STVA_{t-1}$ are variable to measure IC indicator (Intellectual Capital) with the period used to predict is 1 year. The hypothesis will be accepted if the expected significance value is $\leq 5\%$ (α) in the same direction. Thus $H1$, $H2$, $H3$, $H4$, $H5$ and $H6$ will be accepted if the regression coefficients β_1 , β_2 , β_3 , β_4 , β_5 , β_6 are positive and significant.

4. Results and Discussion

4.1 Results

Based on research data that consist of 60 observation units can be described the value-added intellectual capital ($VAIC^{TM}$) which is an indicator of company performance as follows:

Table 4
Descriptive Statistics of Research Data

Variable	Minimum	Maximum	Mean	Std. Deviation
VACE	-0.041	0.538	0.247	0.110
VAHU	-1.075	10.75	3.619	2.94
STVA	-0.670	4.843	0.625	0.678
Growth of Revenue (percentage)	26.829	30.03	28.20	1.018
Employee Productivity	23.20	39.54	30.53	6.83

The $VAIC^{TM}$ value which is the sum of the VACA, VAHU, and STVA components has an average value of 5,23. The results of the $VAIC^{TM}$ calculation are indicators of company performance. Based on these results it can be concluded that the company's intellectual capital is among the top performers. Based on the results of the classical assumption test it can be concluded that the research data is normally distributed, which is indicated by the residual significance value of the research model of 0.07 and 0.06. Other test results are multicollinearity testing, heteroscedasticity, and autocorrelation have also fulfilled the specified requirements.

The regression equation model that uses the growth of revenue as the dependent variable shows that the $VAIC^{TM}$ component that has a positive significant effect on revenue growth is the VACE component or Value-Added Capital Employed. Meanwhile, the other components are not able to explain the growth of revenue significantly. The regression equation model

that uses employed productivity as the dependent variable shows that the $VAIC^{TM}$ component that has a significant effect on employed productivity are the VACE and VAHU components. The ability of independent variables in explaining the variation in revenue growth is 26%, while the dependent variable employee productivity is 30%. Regression results on the research model are presented in table 5 below. The results of multiple linear regression testing showed that the human capital value-added and structural value-added have no significant effect on the growth of revenue. Further findings indicate that the structural value added also does not affect the dependent variable growth of revenue and employee productivity. The goodness of fit test result, ANOVA test shows that the significance value of the F test for a model that has a dependent variable growth of revenue is 0.00, while for the model with the dependent employee, productivity variable has a significance value of F test at 0.00.

Table 5
Results of Multiple Regression Testing

Variables	Growth of Revenue (Beta)	Employee Productivity (Beta)
VACE	4.365*	32.78*
VAHU	0.060	0.924*
STVA	-0.035	-0.339
The results of the coefficient of determination, and the ANOVA test		
Adjusted R Squared	0.26	0.30



Sig F-Stat	0.00	0.00
Constanta	26.93	25.96

Description: * Significant at level 1%

4.2. Discussion

The research sample consists of companies included in the Consumer Non-Cyclicals company sector, and the food and beverages sub-sector. The numbers of samples that meet the requirements are 60 observation unit. VACE is an indicator of Value Added and created by a unit of physical capital. It shows the contribution made by each unit of CE (Capital Employed) or funds available into the organization value added. VAHU shows how much-added value a company can generate with the funds spent on labor. This ratio shows the contribution made by each Rupiah invested in Human Capital which added to the organization's value. The results of the study show that Capital Employed which are component of intellectual capital has a significant effect on employee productivity and growth of revenue which are the variables observed in this study. The greater the capital employed owned by the company, the greater the level of productivity and revenue growth of the company. Other components of intellectual capital namely VAHU able to explain employee productivity significantly. Meanwhile structural capital is not able to explain both employee productivity and grow revenue.

As we all know that the IC indicator in the form of VACE shows the contribution made by each unit of CE (Capital Employed) or available funds towards organizational value added. VAHU shows how much company-added value can be generated with funds spent on labor. This ratio shows the contribution made by each Rupiah invested in Human Capital to the value-added of the organization. The higher the VAHU value means the level of efficiency of the company can increase. The increased level of efficiency will foster great hope for investors in expect better profit growth, increased sales, and increased productivity in the future. STVA measures the amount of structural capital needed to generate 1 Rupiah from the company's added value, where this ratio is an indication of how structural capital is successful in creating corporate value.

Other findings indicate that the amount of company funds invested in human capital has also not been able to influence the increase in company income. This problem can be caused by the company's production market which is experiencing a decline, so the company must reduce the amount of production, or because the human capital invested by the company is low, while the employees are required to produce or carry out activities such as standards set by the company. The findings of this study clearly show that human capital and structural capital do not contribute to company growth. Companies in the Indonesia Stock Exchange have not looked at human capital as an important component in the creation of corporate value. The last finding is the STVA variable has a not significant effect on revenue growth and employee productivity. These results

indicate that some companies in the Indonesia Stock Exchange do not give attention to structural capital in the creation of corporate value.

5. Conclusion

The results of the study show that the condition of the company in the Indonesia Stock Exchange, there are still many who have not paid attention to the importance of human resources as an important factor in value creation. Whereas if we pay attention to resources in the form of human capital, this can create a relatively large value added for the company if properly considered. Many companies do not have dominant physical capital, but they can be more successful by being able to produce added value for the products they produce. This is because the company is very concerned about intellectual capital derived from human resources in the company. This study attempted to find out ((1) the effect of IC (intellectual capital) variables measures by VACE or value-added capital employed, VAHU or value-added human capital, and STVA or structural capital value added toward future performance variables with proxy growth of revenue; (2) the influence of IC (intellectual capital) variables measured by VACE or value added capital employed, VAHU or value-added human capital, and STVA or structural capital value added to future performance variables with proxy for employee productivity. Based on the purpose of the study, the data that has been obtained is analyzed using the VAICTM method.

The results of the analysis show that capital employed value-added and value-added human capital affect the company's financial performance in the future as measured by employee productivity. Other results also show that the STVA does not affect the company's financial performance as measured by employee productivity and grow revenue. The capital employed has a positive and significant effect on growth revenue at a level significance of 1%. The level of significance of the influence of capital employed and human capital value added on income growth and employee productivity is 1%, with the contribution to the model that is 26% for the model with revenue growth as the dependent variable and 30% for the model with employee productivity as the dependent variable.

Based on the result that mentioned, we can conclude this study can support hypotheses H1, H4, and H5, while other hypotheses are not supported statistically. This study has several limitations, among others, the quality of data that is still lacking, especially when the company's data is less detailed, and often researchers have to drill down further and then make a conclusion on the data. This can reduce the accuracy of the data. Suggestions for further research are using better data quality to ensure a *robust* model, so a better conclusion can be drawn about the effect of intellectual capital on the firm's financial performance.



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