

# THE INFLUENCE OF INTELLECTUAL CAPITAL ON CORPORATE VALUES (Empirical Study of Manufacturing Companies in the Consumer Goods Industry Sector Listed On the Indonesia Stock Exchange In 2015 To 2018)

Astuti Madewi<sup>1</sup>, Rina Yuliasuti Asmara<sup>2</sup>  
Graduate Program, Universitas Mercu Buana, Jakarta, Indonesia

**Abstract:** This study aims to examine and analysis the influence of Intellectual Capital (Human Capital, Structural Capital, Customer Capital) by applying the Pulic (1998) model that develops the Value-added Intellectual Coefficient (VAICTM) method on Company Value that is proxied by Price Earnings Ratio (PER). This research is a quantitative research with an explanatory research method. The sampling technique uses purposive sampling. The sample used in this study is a consumer goods subsector manufacturing company listed on the Indonesia Stock Exchange from 2015-2018. The analytical method used is multiple linear regression analysis.

The results of this study indicate that Customer Capital affects the value of the company, while Human Capital and Structural Capital do not affect the value of the company. this shows that company management needs to improve its human capital capabilities (human capital) and choose competent human resources to provide great added value for the company, complete supporting infrastructure (structural capital) that can support human resources to function, and maintain and further enhance good relations between the company and its internal and external partners (customer capital), so that if the value of Intellectual Capital (human capital, structural capital, and customer capital) increases, it will also increase the value of the company.

**Keywords:** Human Capital, Structural Capital, Customer Capital, Company Value

Date of Submission: 27-03-2020

Date of Acceptance: 15-04-2020

## I. Introduction

Changes that occur in the business world Currently more on changes in industrial and economic patterns that lead to the revolution 4.0 while the Company is more about developing knowledge assets (Knowledge Assets) as a form of intangible assets that are very effective for developing business in accordance with the organization or company. With the rapidly developing science and technology, a way to use human resources efficiently and economically will be obtained. As in the country of Indonesia which is a country that has a population that has a rank 4 large population in the world, with a population of about 253 million people in 2015. With the population demographic composition as follows:

**Table 1.1** Demographic composition of the population

Age of Population (Years)	Amount (Percentages)	Remarks
0-14	27,3%	Non-productive
15-64	67,3%	Productive
65	5,4%	Non-productive

Source: (source: projection of Indonesian population 2010-2035:Bapenas,BPS, United Nation Population Fund, 2013).

This indicates that the percentage of the population of productive age (15-64 years) is greater when compared to the population of non-productive age (0-14 years and 65 + years) with a composition of 67.3% compared to 32.7%. This shows that the level of dependence of non-productive age on productive age is relatively small.

Based on a survey by Dr. Christopher Murray (Director of the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, United States) on September 25, 2018, Indonesia ranked one place below the Philippines, which ranks 130. In the study found results that showed a correlation between investment in the fields of education, health, increase in human capital (human capital) and the growth of gross

domestic product (GDP). While global economic growth is highly dependent on digital technology, which has changed from agriculture to processed products (manufacturing) and continues in several types of service industries, at the same time the term Human Capital has emerged which has an extraordinary role in increasing the human resources that play a role very important in stimulating national economic growth (www.swa.co.id, 25 September 2018).

The survey released by the World Bank on 11/11/2018 shows that Indonesia ranks 87th in the Human Capital Index (HCI). This indicator can be used by the government to see how much influence the policy issued by the government on the potential ability of sources human resources (HR) from various industrial sectors.

World Bank President, Dr. Jim Yong Kim (2018), explained that human capital as the condition of a population in terms of health, skills, knowledge, work experience and behavior patterns. This is a concept that realizes that all workers representing the same situation and conditions, and the quality of workers can be improved by paying attention to how we invest in every aspect related to the human condition itself (www.swa.co.id, 25 September 2018).

Sri M. Indrawati, 10/10/2018 Minister of Finance in the Human Capital Early Adopters Ministerial Workshop discussion in the series of IMF-WBG 2018 Annual Meeting in Bali stated that Human Capital is the foundation for prosperity and the key to driving high-income growth. And Indonesia is committed to improving the quality of Human Capital, which includes health, education, social protection, and gender equality in several strategic policies, including education, the government believes that a knowledgeable, advanced, creative and innovative society will have higher productivity when compared with those without skills (https://ekonomi.bisnis.com, 10 October 2018).

Alexander D. Rothenberg, et.al (2016) in his scientific article entitled "Rethinking Indonesia's Informal Sector" illustrates that in the sector of economic structure development and employment does not really need skilled labor as the most important thing and states that most companies in Indonesia can survive as a micro, small and medium business. And almost 93% of these companies belong to companies that are informal or also in the form of a home industry.

In general, informal micro-scale companies, have fewer employees with lower levels of education and network in the supply chain locally or locally, with a comparison of high-skilled or medium-skilled labor as a reference in measuring competitiveness Indonesia's human resources in ASEAN countries, this is very meaningless when compared to neighboring countries that are far more advanced in human resources, for example, Singapore which has a high Intellectual Capital for the size of ASEAN countries. If viewed from the side of the economy the informal sector is the main pillar of the Indonesian labor market. The size of the regional comparison can be said to be not worth reading the current conditions of labor in Indonesia.

In the formal sector for example companies in Indonesia, Human Resources (HR) is considered as an important strategic factor formed to carry out various interests of the company's vision and mission. In the current condition of economic globalization, it provides an overview of changes in management's views on various resources that are strategic for the company. The change in question is from tangible assets to intangible assets, for example, star-up businesses that have developed so rapidly these days that many companies have sprung up in the form of online sales.

With more attention to the development of human resources to advance the developing industry or company, the attention to Intellectual Capital in Indonesia began to emerge after the Statement of Financial Accounting Standards SFAS 19 of 2000 concerning intangible assets. But in practice, Intellectual capital is not widely known by the public. This is caused by changes in the pattern of business views based on resources to technology-based. Having quality, creative and innovative employees cannot be replaced so that they contribute to the company's competitive advantage.

In making a company decision, it is very closely related to Intellectual Capital. Therefore, if managed properly, Intellectual Capital will provide great benefits for the business continuity of a company so that intellectual capital can contribute to the progress of the company and can be used as a value added company as an effort to attract investors.

## **II. Literature Review, Framework And Hypotheses**

### **A. Literature Review**

#### **a. Theory stakeholder**

The term stakeholder in the classic definition proposed by Freeman and Reed (1983, p.91) states that stakeholders are "any identifiable groups or individuals who can affect the achievements of the organization's objectives, or is affected by the achievements of the organization's objectives".

Based on stakeholder theory, organizational management is expected to carry out activities that are considered important by their stakeholders to report back those activities or activities to stakeholders. This theory states that all stakeholders have the right to be provided with information about how organizational

activities affect them, even when they choose not to use that information and even when they cannot directly play a constructive role in organizational survival (Deegan, 2004).

The main purpose of stakeholder theory is to help corporate managers understand their stakeholder environment and manage more effectively among the relationships in their corporate environment. This theory can be tested by content analysis of the company's financial statements (Guthrie, et al., 2006). In the context of explaining the concept of Intellectual Capital (IC) stakeholder theory viewed ethically or morally and in managerial fields. Value creation in this context is to utilize all the potential of the company, both employees (human capital), physical assets (Physical capital) and structural capital.

**b. Legitimacy Theory**

The theory of legitimacy is closely related to stakeholder theory. Where this theory states that organizations are continuously looking for ways to ensure their operations are within the limits and norms that apply in the community (Deegan, 2004). Legitimacy theory depends on the premise that there is a social contract between a company and the community in which it operates. A social contract is a way to explain a large number of community expectations about how an organization should carry out its operation.

Based on the theory of legitimacy, organizations must continuously demonstrate that they are operating in a manner consistent with social values (Guthrie and Parker, 1989). And this can be achieved through disclosure (disclosure) in the company's financial statements.

Based on a study of stakeholder theory and legitimacy theory, it can be concluded that the two theories have different emphases about the parties that can influence in disclosing or providing information in the company's financial statements. In the context of IC with financial performance, stakeholder theory is more appropriate to be used as the main basis to explain the relationship between IC and performance or to assess company performance.

**Definition of Intellectual Capital**

The interest in IC began when the publication of Tom Stewart's research (June, 1991) with the scientific article title "Brain power-how intellectual capital is becoming America's most valuable asset" which makes IC as an agenda in company management for the next stage. IC is generally identified as the difference between the market value of a company or a company's business with the book value of the company's assets. This is based on observations of the late 1980s that the market value of most businesses and specifically is a business based on knowledge becomes a value greater than the value reported in the financial statements based on calculations made by accountants (Ros-lender & Fincham, 2004).

IC is often defined as a knowledge resource in the form of employees, customers, processes or technologies that companies can use in the process of creating value for the company (Bukh, *et al.*, 2005).

**Components of Intellectual Capital**

International Federation Accountant (IFAC) in 1998 classified intellectual capital into 3 categories: Human capital, Structural capital and Organization capital or Customer capital.

**a) Human Capital**

Human capital describes the company's collective ability to produce the best alternatives based on the knowledge possessed by employees or people in the company. Human capital will increase if the company is able to manage the skills and knowledge possessed by its employees to the fullest.

**b) Structural Capital**

Structural capital explains the ability of a company to fulfill the process of activities or routines of the company and its organizational structure to support the efforts of employees in developing and producing optimal performance so that they can run performance and achieve overall business targets.

**c) Employee Capital / Customer Capital**

Customer capital explains the harmonious relationship / association network that is owned by the company with customers, both those from suppliers, the government and the community who are close to the company's business environment.

**Intellectual Capital Measurement**

Measurement and reporting methods about a company's intellectual capital can be grouped into two categories namely; nonmonetary measurement and monetary measurement (Tan et al., 2007). As more and more research on IC measurement methods (Seiby,2001) tries to classify 21 measurement methods into 4 large groups:

1. Direct Intellectual Capital methods (DIC)
2. Market Capitalization Methods (MCM)
3. Return on Assets (ROA)
4. Scorecard Methods (SC)

These methods have the following benefits (Seiby,2001):

1. These methods offer valuations in dollars such as return on assets and market capitalization methods used in situations of mergers, acquisitions and valuation of stock market prices. This method can also be used to compare companies that are in the same industry and this method is also very appropriate to illustrate the financial value of intangible assets.
2. The benefit of direct intellectual capital and the scorecard method is its ability to produce a more comprehensive picture of the health conditions at every level of the organization. this method describes the actual events and reporting can be faster and more accurate than financial measurements. This method is very useful for non-profit organizations, internal departments, public sector organizations and for purposes related to social and environmental activities.

### **Value Added Intellectual Coefficient (VAIC™)**

This method was developed by Pulic,1997 which was designed to present information about the Value creation efficiency of tangible assets and intangible assets owned by the company. VAIC™ is an instrument to measure the performance of a company's intellectual capital. This approach is relatively easy and very possible to do, because it is constructed from the accounts in the company's financial statements (balance sheet, profit and loss).

This model starts with the company's ability to create value added (VA). Value added is the most objective indicator to assess business success and shows the company's ability to create value (value creation). VA is calculated as the difference between output and input. Output represents revenue and covers all products and services sold in the market, while input covers all expenses used to obtain revenue. The important thing in this model is that labor expenses are not included in the input.

Formula Value Added Human Capital (VAHU)

VAHU shows how much VA can be generated with funds spent on labor.

$$VAHU = VA / HC$$

HC = employee expenses

Formula Structural Capital Value Added (STVA)

This ratio measures the amount of SC needed to produce 1 Rupiah from VA and is an indication of how successful the SC is in value creation.

$$STVA = SC / VA$$

$$SC = VA - HC$$

Formula Value Added Capital Employee (VACA)

VACA is an indicator for VA created by one unit of Physical contribution made by each unit of CE to value added capital. This ratio shows the organization.

$$VACA = VA / CA$$

$$VA = Out - In$$

The Intellectual Capital formula is as follows:

$$VAIC^{\text{TM}} = VACA + VAHU + STVA$$

### **The value of the company**

The value of the company is the perception of investors or commonly also called investors of the company's success rate in returning a high level of profit in the form of stock prices. High stock prices will make the value of the company also high, and increase market confidence in the company, not only to the company's current performance but also to the company's prospects in the future. Reaching the maximum threshold of the company's value is very important for a company's survival, because maximizing the company's value can make it easy for the company to achieve the goals expected by investors.

The increase or value creation of the company is an achievement that is highly expected and desired by the shareholders so that the investment is not in vain in the company, because with increasing company value, the welfare of capital owners and employees can be fulfilled.

1. According to Brigham and (Erdhadt,2005: 518), the company's value is the present value of free cash flow in the future at a discount rate according to the weighted average capital cost. Free cash flow is cash flow available to investors (creditors and owners) after taking into account all expenses for company operations and expenses for investment and net current assets.
2. According to Gitman,2006: 352, the company's value is the actual value per share that will be received if the company's assets are sold according to the stock price.

Measurement of Company Value

There are several ratios to measure the value of a company, one of which is the Price Earnings Ratio (PER) formula which explains how much money the capital owner must spend to pay every dollar of reported profit (Brigham and Houston, 2006: 110). This ratio is used to measure the ratio between the company's stock price with the profits obtained. The use of price earnings ratio is to find out how the stock market appreciates the

company's performance which is reflected by its earnings per share. Price earn ratio shows the relationship between the ordinary stock market with earnings per share. The greater the PER, the greater the possibility of the company to grow so as to increase the value of the company.

The formula used to measure Price Earnings Ratio (PER) is as follows:

$$\text{PER} = \frac{\text{Market Price Per Share}}{\text{Earnings Per Share}}$$

### **Impact of Human Capital on Company Value**

Reveal the relationship between intangible assets and the success of the newly created company. One of the main conclusions reached in this research is the importance of human resources on company performance in the first stages of life. Thus, the results show the importance of the entrepreneur's role which has often been highlighted, either because of his knowledge or the time and effort invested in Esther's business (Hormiga & Rosa M. Batista C & A Sánchez-Medina, 2011) and Carol-Anne Ho, S research Mitchell Williams (2003) provides the first large-scale evidence of the absence of a systematic relationship between board features (composition, structure, and ownership) and company performance, which is defined as the efficiency of value added by corporate resources. The research of Leszek K, Anna W, et al (2014) Employee recruitment implies the use of human capital in business processes, which makes employers responsible for offering appropriate compensation - the product value of human capital and the rate of return adopted.

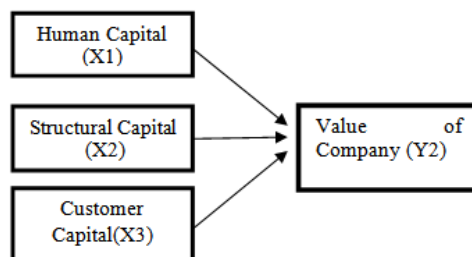
### **Impact of Structural Capital on Company Value**

IC disclosure has a positive effect on firm value. Further findings based on path analysis results show that corporate governance structure affects corporate value through ICD (Lia U& Kartika D, 2015) and research by Bambang B. S, arista H., et al (2015) proves that managerial ownership is a moderating variable that negatively affects the relationship of intellectual capital to the value of the company. Whereas institutional ownership does not moderate the effect of intellectual capital on firm value. Findings from (Abdullah& Saudah;2011), revealed that in general they acknowledge the existence or importance of IC in their organizations. In addition, adopting a Key Performance Indicator (KPI) to measure department performance. Importantly, his findings confirm that the four IC components have a significant positive relationship with company performance.

### **Impact of Customer Capital on Company Value**

Intellectual capital management transforms personal knowledge in the brain into the knowledge of business organizations with each other transforming between human capital, structural capital and relational capital, and combining intellectual capital and physical capital into different specific products and services to ultimately get value creation (Nan X, 2010). According to the research of Hennie Daniels and Henk N, (2005) states "Customer capital encompasses the values of customer relationships, often referred to as goodwill. Since supplier relations are also of great value to most companies, we prefer to speak of relational capital, which includes both". Irene M. H, et al (2010) found evidence that decentralization and technology infrastructure support results-based IC management control systems which in turn are associated with reduced uncertainty in internal decisions. The findings show that if managers structure their organizational control systems appropriately to develop IC capabilities, this system can cause a reduction in internal uncertainties regarding human, structural, and relational capital.

The research framework of this research is described as follows:



**Figure 2.1:** Framework

## **B. Hypothesis**

The hypothesis of the research as follows:

- H1: Human Capital effect on Company Value
- H2: Structural Capital Effect on Company Value
- H3: Customer Capital effect on Company Value

**RESEARCH METHODS**

This study uses secondary data from manufacturing company research objects listed on the Indonesia Stock Exchange (IDX) by taking data online or browsing at www.idx.co.id.

The author in this study conducted a study in the form of a time series study where the data used were time series data. The research period starts from 2015 to 2018 or for 4 years.

This study aims to test the hypothesis of the relationship between independent variables (Intellectual Capital) to the dependent variable (Company Value) which is also called the causal research method.

**Population and Sample**

The population of this research are companies belonging to manufacturing companies engaged in the consumer goods industry sector which are listed on the Indonesia Stock Exchange (IDX) for the period 2015 - 2018. The sampling technique of this study is to use a purposive non-random sampling method, which is sampling non-randomized research so that each member of the population has the same opportunity will be selected as a research sample.

**Analysis Method**

The data analysis method used in this study is the multiple regression method. Regression is a measuring tool used to see whether there is a correlation between variables. Regression in which the dependent variable (Y) is connected or explained by more than one independent variable (X). Data analysis was used with the SPSS computer program.

Multiple regressions for this study are linked to the formula:

$$Y = \alpha + \beta1HC + \beta2SC + \beta3CC + e$$

**III. Research Result**

**DESCRIPTIVE STATISTICS**

Descriptive statistics provide a description or description of data that is seen from the mean (standard), standard deviation, variance, maximum, minimum, sum, range, Kurtosis and skewness (skewed distribution).

Table 4.2 Descriptive Statistics Test Results

Descriptive Statistics								
	N	Minimum	Maximum	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
NP	75	-1,620000	48,240000	19,39413333	,756	,277	1,409	,548
HC	75	,774838	87,484293	15,01758070	2,789	,277	7,965	,548
SC	75	-,290592	,988569	,82474358	-3,380	,277	15,503	,548
CC	75	,576985	91,006536	17,48750582	2,640	,277	7,196	,548
Valid N (listwise)	75							

Source: Research data processed by SPSS

**CLASSIC ASSUMPTION TEST**

**Normality test**

Normality testing aims to see the visualization of the spread of data will approach the normal distribution or not. To test the research data spread normally or can not be done using histogram diagrams that are drawn together with normal curves or by using the Kolmogorov-Smirnov method.

**Table 4.3 Results of Normality Test Using Kolmogorov-Smirnov One-Sample Kolmogorov-Smirnov Test**

		NP	HC	SC	CC
N		75	75	75	75
Normal Parameters <sup>a,b</sup>	Mean	19,39413333	15,01758070	,82474358	17,48750582
	Std. Deviation	9,238419792	19,090177777	,195585014	19,736660796
	Absolute	,134	,272	,201	,268
Most Extreme Differences	Positive	,134	,272	,201	,268
	Negative	-,061	-,228	-,181	-,210
Kolmogorov-Smirnov Z		1,161	2,354	1,742	2,324
Asymp. Sig. (2-tailed)		,135	,000	,005	,000

a. Test distribution is Normal.

From table 4.3 it can be seen that the residual significance value of Company Value is 1,161 Human Capital 2,345 Structural Capital 1,742 and Customer Capital 2,324 is greater than 0,05. Can be concluded that the residual values in the regression model have been normally distributed, so that the next classical assumption test can be performed. When viewed in a histogram diagram, the distribution of data in this study can be known through the information presented as follows.

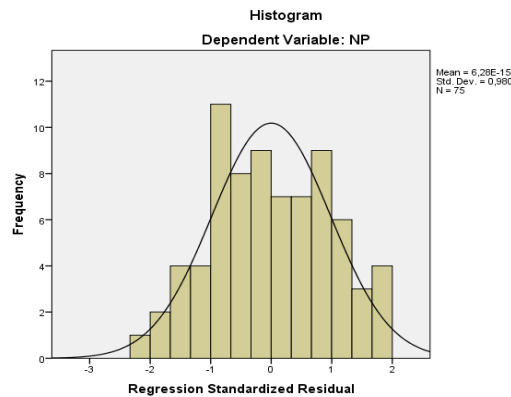


Figure 4.1 Research Data Histogram Diagram

Source: Research data processed in SPSS

In addition to the depiction of the histogram diagram above, how to find out the distribution of data with normal distribution or cannot be known through the Normal P-Plot image which shows that the research data are close to the diagonal line of the normal P-Plot curve. The following is a picture of the distribution of the research:

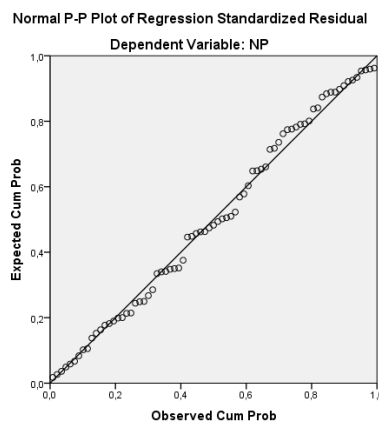


Figure 4.2 P-Plot Diagram of Research Data

Source: Research data processed by SPSS

Figure 4.2 can be seen that the points spread around the line and also follow the diagonal line. Can be concluded that the residual value in the regression model is normally distributed and is feasible to be used for further analysis.

### Multicollinearity Test

This test is used to determine whether there is a deviation of the classic multicollinearity assumption, that is, a linear relationship between independent variables or to ensure that one independent variable does not have a strong or high correlation with the other independent variables in a multiple regression model. If there is high correlation, there is a problem. In research that uses a good regression model, there should not be a correlation between independent variables.

In this study the method used is to see the value of VIF (variance inflation factor) the recommended number to show the absence of multicollinearity problems is the Tolerance value > 0.1 and the VIF value < 10 (Hai et al: 2010)

H0: Tolerance > 0.1 and VIF < 10, there is no multicollinearity between independent variables.

H1: Tolerance <0.1 and VIF> 10, there will be multicollinearity between independent variables.

In this study, the variables to be tested for multicollinearity are the Human Capital, Structural Capital, Customer Capital and Company Value variables that have been processed in the study.

**Table 4.4** Multicollinearity Test Results

Coefficient Correlations <sup>a</sup>					
Model		CC	SC	HC	
1	Correlations	CC	1,000	-,394	-,998
		SC	-,394	1,000	,369
		HC	-,998	,369	1,000
	Covariances	CC	,345	-,907	-,352
		SC	-,907	15,339	,867
		HC	-,352	,867	,361

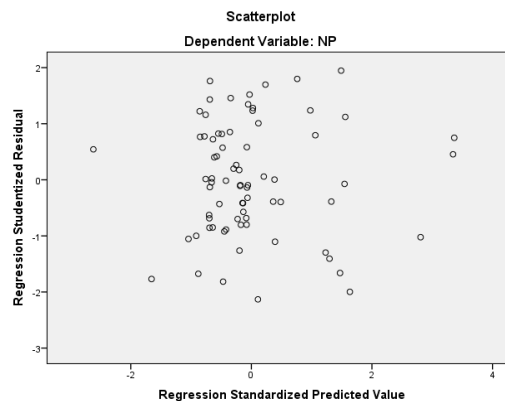
a. Dependent Variable: NP

Based on the results of table 4.4 above, it can be seen that all independent variables used in this study, Human Capital, Structural Capital, customer Capital have a VIF value below 10 and tolerance values above 0.1. This indicates that there are no symptoms of multicollinearity and there is no correlation between independent variables (independent) so that it can be used for subsequent analysis.

**Heteroscedasticity Test**

The heteroscedasticity test aims to test whether in the regression model there is an unequal variance from the residuals of one observation to another. The occurrence of heteroscedasticity can be detected by looking at the plot graph between the predictive value of the dependent variable, namely ZPRED with the residual SRESID.

a. Scatterplot method



**Figure 4.3** Scatterplot Heteroscedasticity Test

Source: Research data processed by SPSS

From Figure 4.3 above it can be seen that the points do not form a clear pattern, and the points spread, so it can be concluded that there is no heteroscedasticity problem in the regression model.

**Autocorrelation Test**

Autocorrelation test aims to test whether the linear regression model has a correlation between the error of the intruder in the period t with the error of the intruder in the period t-1 (previous). If there is a correlation, then it is called an autocorrelation problem. Autocorrelation arises because sequential observations all the time are related to one another. These problems arise because residuals are not free from one observation to another. A good regression model is a regression that is free from autocorrelation.



**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.818 <sup>a</sup>	.669	.655	5,428842320	2,223

a. Predictors: (Constant), CC, SC, HC

b. Dependent Variable: NP

Table 4.7 Durbin-Watson Test

Source: Research data processed by SPSS

Based on the table above it can be seen that the Durbin-Watson value is 2.223 and from the DW table obtained is rated  $dl = 1.543$  and  $du = 1.709$   $4-DW = 1.777$ . So, the value  $dl \leq DW \leq du$  or  $1,543 \leq 2,223 \leq 1,777$ , it can be concluded that reject  $H_0$  which states that there is no positive or negative autocorrelation or it can be concluded that there is no autocorrelation in this study.

b. Test Runs test

Runs tests as part of non-parametric statistics can be used to test whether there is a high correlation between residual variables.

Table 4.8 Test Results of Runs Test

**Runs Test**

	Unstandardized Residual
Test Value <sup>a</sup>	-,23842
Cases < Test Value	37
Cases >= Test Value	38
Total Cases	75
Number of Runs	41
Z	,583
Asymp. Sig. (2-tailed)	,560

a. Median

a. Durbin-Watson Test (DW Test)

From the table above it can be seen that the value of the test of -0.23842 with a significant value of 0.05, it can be concluded that  $0.560 > 0.05$  so that there is no autocorrelation between variables.

**HYPOTHESIS TEST**

**Analysis of Multiple Linear Regression**

The effect of changes in the value of the dependent variable (Y) caused by the influence of the independent variable (X) can be known using multiple linear analysis. The equation used to carry out multiple linear model analysis is:

$$Y = \alpha + \beta_1HC + \beta_2SC + \beta_3CC + e.$$

Values of  $\alpha$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  then the results of the regression of the independent variable to the dependent variable are shown in the following table:

Table 4.9 Calculation of Multiple Linear Regression Coefficients  
Source: Research data processed by SPSS

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2,129	2,838		,750	,456
1 HC	-4,444	,600	-,183	-,7401	,000
SC	5,856	3,916	,124	1,495	,139
CC	4,527	,587	,9,672	7,706	,000

a. Dependent Variable: NP

Based on table 4.9 obtained by multiple regression as follows:

$$Y = 2,129 - 4,444 HC + 5,856 SC + 4,527 CC + e$$

The equation of the multiple linear regression model can be explained as follows:

- a. The value of constant (a) is 2.129 which means that if the variables Human Capital, Structural Capital and Customer Capital are zero (0), then the Company Value variable is 2.129.
- b. The value of the Human Capital variable regression coefficient is -4,444 which means that if the value of Human Capital rises by one unit, the Company's Value will increase by -4,444 units assuming the other variables do not change.
- c. The value of the Structural Capital variable regression coefficient is 5.856 which means that if the structural capital value rises by one unit, the Value of the Company will increase by 5.856 units assuming the variable others don't change.
- d. Customer Capital variable regression coefficient value of 4.527, which means if the value of Customer Capital increases by one unit, then the Value of the Company will increase by 4.527 units assuming the variable others don't change.

**Determination Coefficient Test (Adjusted R2)**

The results of the determination analysis can be seen from the SPSS output from multiple linear analyzes as follows:

Table 4.10 Determination Test Results

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,818 <sup>a</sup>	,669	,655	5,428842320

a. Predictors: (Constant), CC, SC, HC

b. Dependent Variable: NP

Source: Research data processed by SPSS

Based on table 4.10, it can be seen that the Adjusted R Square value is 0.655 or 65.5%. This means that the dependent variable (Company Value) can be explained by the independent variables (Human Capital, Structural Capital, Customer Capital) of 65.5%. While the remaining 34.5% is influenced by other variables not included in the study.

**Partial Testing Results (t test)**

Partial test is used to determine the effect of partially independent variables on the dependent variable, if the calculated probability value is smaller than 0.05. Conversely, if the calculated probability value is greater than 0.05, the independent variable does not have an influence on the dependent variable (Baroroh,2013: 3). The influence of independent variables on the dependent variable can also be seen from the t value, namely by testing (Priyatno,2011: 236).

- H0 is rejected if t arithmetic > T table
- H0 is accepted if t arithmetic < T table

T table is sought at the significance level of 0.025 (df = 72) so that the t table obtained for this study is 1.99346. The partial test results of the study are presented as follows:  
Table 4.11 Partial Test (T Test)

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2,129	2,838		,750	,456
1 HC	-4,444	,600	-.9,183	-7,401	,000
SC	5,856	3,916	,124	1,495	,139
CC	4,527	,587	9,672	7,706	,000

a. Dependent Variable: NP

The conclusions that can be drawn from the above table analysis are as follows:

- a. The first hypothesis testing, the independent variable Human Capital has a significance value of -7,401 (-7,401 < 0.05). And the t value is small from t table (-7,401 < 1.99346). Based on the test results, H0 is accepted and HA is rejected, which indicates that Human Capital has no significant effect on Company Value. Therefore, the H1 in this study cannot be accepted, so it can be concluded that Human Capital has no significant effect on Company Value in the manufacturing companies in the consumer goods industry sector.
- b. The second hypothesis testing, Structural Capital independent variable has a significance value of 1.495 (1.495 > 0.05). And the t value is small from t table (1,495 < 1.99346). Based on the test results, H0 is accepted and HA is rejected, which shows that Structural Capital has no significant effect on Company Value. Therefore, the H2 in this study cannot be accepted, so it can be concluded that Structural Capital has no significant effect on firm value in the manufacturing companies in the consumer goods industry sector.
- c. Testing the third hypothesis, the independent variable Customer Capital has a significance value of 7.706 (7.706 > 0.05). And the value of t count is large from t table (7.706 < 1.99346). Based on the test results, H0 is rejected and HA is accepted, which shows that Structural Capital has a significant effect on Company Value. Therefore, H3 in this study can be accepted, so it can be concluded that Structural Capital has a significant effect on Company Value in manufacturing companies in the consumer goods industry sector.

**Simultaneous Testing Results (Test F)**

Simultaneous test is used to see the effect of independent variables on the dependent variable with the following conditions:

H0 is accepted if F arithmetic < F table

H0 is rejected if F count > F table

F tables are sought with a significance value of 0.05 so F tables are obtained in this study 3.12. The hypothesis used in the study is as follows:

H0: Human Capital, Structural Capital and Customer Capital simultaneously have no effect on Company Value.

HA: Human Capital, Structural Capital, and Customer Capital simultaneously affect the Value of the Company

Table 4.12 Simultaneous Test Results (Test F)

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	4223,246	3	1407,749	47,765	,000 <sup>b</sup>
Residual	2092,535	71	29,472		
Total	6315,782	74			

a. Dependent Variable: NP

b. Predictors: (Constant), CC, SC, HC

Based on table 4.12 above, it can be seen that the calculated F value is greater than the F table (47.765 > 3.120) so that in this study H0 is rejected and HA is accepted, which shows that Human Capital, Structural and Customer Capital simultaneously affect the Company Value. Therefore, H3 in this study was accepted, which means Human Capital, Structural Capital and Customer Capital simultaneously affect Company Value.

#### **IV. Discussion Result**

Effect of Human Capital on Company Value. Based on testing the first hypothesis that has been done before, it can be concluded that Human Capital has no significant effect on Company Value in the manufacturing companies in the consumer goods industry sector which is listed on the Indonesia Stock Exchange in 2015-2018. So, it can be interpreted that Human Capital obtained by the company has no effect on Company Value.

The results of this study are also the same as the research conducted by Yang Li & Zhao, (2017) did not find a significant relationship between Human Capital and firm value, but Structural Capital positively influences company value. His findings are strong for companies with different property rights, of different sizes, or in different industries, with the only exception being capital-intensive companies, where human resources have a significant effect on firm value. The results imply that improved organizational systems play a more important role in increasing company value in typical developing countries, such as China.

The above findings are also in line with research by Bunga E. et al. (2017) The results of the partial research show that VACA and STVA have a positive and significant influence on company performance while VAHU has no effect on Company performance.

#### **Impact of Structural Capital on Company Value.**

Based on the second hypothesis, it is concluded that Structural Capital does not significantly influence Company Value in the consumer goods manufacturing sector listed on the Indonesia Stock Exchange in 2015-2018. The conclusion gives an understanding that the Structural Capital that is run by the company does not affect the value of the company. This is in accordance with the research of Carol-Anne Ho, S. Mitchell Williams (2003) providing the first large-scale evidence of the absence of a systematic relationship between board features (composition, structure, and ownership) and company performance, which is defined as the efficiency of value added by resources company.

In contrast to the research Nan X, (2010) shows that the Company is a value creation machine: Intellectual Capital as a core element of value creation is the core substance of corporate value to shape the company's organizational knowledge. Intellectual capital management converts personal knowledge in the brain into the knowledge of business organizations with each other transforming between intellectual capital, structural capital and relational capital, and combining intellectual capital and physical capital into different specific products and services to ultimately get value creation.

#### **Impact of Customer Capital on Company Value.**

Based on the third hypothesis, it is concluded that customer Capital has a significant effect on Company Value in the consumer goods manufacturing sector companies listed on the Indonesia Stock Exchange in 2015-2018. The conclusion gives an understanding that the Customer Capital run by the company affects the value of the company. This is in accordance with the research of María D. López-G, et al (2011) Findings show that Regarding sustainable relational intellectual capital, corporate environmental relations are very important. In the primary and secondary the supplier becomes more involved in the environmental management process, whereas in the service sector it is the customer who becomes more involved.

Roger Baxter & Sheelagh M, (2004) research findings help explain why relationships are formed, to gain access to relationship partner resources. show specifically what is valuable, in customer relationships. They see the value given by the competencies, attitudes, and innovations and adaptability of customer personnel. The company values access to a network of customer relations, with intangible assets in customer organizations, such as intellectual capital and brands, and assistance obtained from customers for future developments.

#### **V. Conclusion**

This study aims to examine the relationship between Intellectual Capital (Human Capital, Structural Capital and Customer Capital) with Company Value in the manufacturing's company subsector of consumer goods industries listed on the Stock Exchange in 2015-2018. Based on the analysis that has been done before, the research concludes as follows:

- a. Based on the results of partial hypothesis testing (t test) the independent variable Human Capital shows that Human Capital has no effect on firm value. So, it can be concluded that Human Capital has no effect on the value of the company in the consumer goods industry sector manufacturing companies listed on the Stock Exchange in 2015-2018.

b. Based on the results of partial hypothesis testing (t test) Structural Capital independent variables indicate that structural capital has no effect on firm value. So, it can be concluded that Structural Capital does not affect the value of the company in the manufacturing sector of consumer goods manufacturing companies listed on the Stock Exchange in 2015-2018.

c. Based on the results of partial hypothesis testing (t test) the independent variable Customer Capital shows that Customer Capital affects the value of the company. So, it can be concluded that Customer Capital affects the value of the company in the consumer goods manufacturing sector manufacturing companies listed on the Stock Exchange in 2015-2018.

d. Based on the results of simultaneous hypothesis testing (F test), it shows that Intellectual Capital (Human Capital, Structural Capital and Customer Capital) simultaneously influences Company Value in the consumer goods manufacturing sector manufacturing companies listed on the Indonesia Stock Exchange in 2015-2018.

### **SUGGESTION**

Based on the conclusions and limitations of the research previously described, the researcher provides the following suggestions:

1. **Company Manager**

For the company management, this research provides an overview of how the influence of Intellectual Capital (Human Capital, Structural Capital and Customer Capital) on Company Value in each period so that for the next goal there are other alternatives to increase the value of the company for shareholders.

2. **Investors**

For Investors, this study provides an overview of how Intellectual Capital (Human Capital, Structural Capital and Customer Capital) plays an important role in increasing the value of the company it receives, so that the shares or capital invested can return with the expected profit in the form of receipt of share profits.

3. **Academics**

For the next research, other variables can be added so that the research can be more complex and better than the previous research.

### **Refefences**

- [1]. Proyeksi Penduduk Indonesia 2010-2035: Bapenas, BPS, United Nation Population Fund, 2013.
- [2]. World Development Report 2018; The Human Capital Index (HCI);2018.
- [3]. <https://ekonomi.bisnis.com/read/20181010/12/847818/annual-meetings-imf-world-bank-group-2018-ini-tips-sri-mulyani-untuk-pengembangan-sdm>.
- [4]. Rendi cahyo hadiwijaya, Abdul Rohman; Pengaruh Intellectual Capital terhadap nilai perusahaan dengan kinerja keuangan sebagai variabel intervening; Diponegoro Journal of Accounting vol.2 no.3;2013.
- [5]. Wang, M; Measuring Intellectual Capital and Its Effect on Financial Performance: Evidence from the Capital Market in Taiwan; Higher Education Press and Springer-Verlag;2011.
- [6]. Longo, M. & Matteo Mura; The effect of intellectual capital on employees' satisfaction and retention; Elsevier B.V. All rights reserved;2011.
- [7]. Esther H & Rosa M. Batista & Sánchez-Medina; The role of intellectual capital in the success of new Ventures; Int Entrepreneur Management J 7:71-92;2011.
- [8]. Irene M. H Robert G. Isaac; Intellectual Capital and Uncertainty of Knowledge: Control by Design of the Management System; Journal of Business Ethics (2011) 98:627-640 \_ Springer 2010.
- [9]. Francisca Castilla Polo, Dolores Gallardo Vázquez; Social information within the intellectual capital report; by Elsevier Inc;2008.
- [10]. Carol-Anne Ho, S. Mitchell Williams; International comparative analysis of the association between board structure and the efficiency of value added by a firm from its physical capital and intellectual capital resources; The International Journal of Accounting 38 (465-491);2003.
- [11]. Emma García, Isabel Martínez; The use of intellectual capital information in investment decisions an empirical study using analyst reports; The International Journal of Accounting 42 (57-81);2007.
- [12]. Dewi Fariha Abdullah & Saudah Sofian; The Relationship between Intellectual Capital and Corporate Performance; Elsevier Ltd;2011.
- [13]. Yang Li & Zhao Z; The dynamic impact of intellectual capital on firm value: evidence from China; Routledge Taylor & Francais Group;2017.
- [14]. Bambang Bemby S, Mukhtaruddin, Arista Hakiki; Intellectual Capital, Firm Value and Ownership Structure as Moderating Variable: Empirical Study on Banking Listed in Indonesian Stock Exchange period 2009-2012;2015.
- [15]. Lia U. &Kartika D; Intellectual capital disclosure, corporate governance structure and firm value in Indonesian banking industry; Int. J. Monetary Economics and Finance, Vol. 8, No. 2;2015.
- [16]. Nan X; Organizational learning, Intellectual capital synergies and firm value creation; The school of accounting, Lanzhou University China;2010.
- [17]. Leszek K, Anna W, et al; An outline of a compensation system based on human capital theory; Malo pol ska school of economics, Poland (Elsevier);2014.
- [18]. Deegan, C. 2004. Financial Accounting Theory. McGraw-Hill Book Company. Sydney.
- [19]. Freeman, R.E., and Reed. 1983. "Stockholders and stakeholders: a new perspective on corporate governance". Californian Management Review. Vol 25 No.2. pp. 88-106.
- [20]. Seiby, K.E. 2001. "Method for measuring intangible assets". Available online at: [www.libgen.ruc](http://www.libgen.ruc).

- [21]. Roslender, R., dan R. Fincham. 2004. "Intellectual capital: Who Count, Controls?" Accounting and the public interest (API), vol. 4. Pp. 1-21.
- [22]. Pulic, A. 1999. "Basic information on VAIC™. Available online at: [www.vaic-on.net](http://www.vaic-on.net).
- [23]. Pulic, A. 1998. "Measuring the performance of intellectual potential in knowledge economy". Paper presented at the 2<sup>nd</sup> McMaster world congress on measuring and managing intellectual capital by the Austrian team for intellectual potential.
- [24]. Pulic, A. 2000. "VAIC™- an accounting tool for IC management".
- [25]. Pulic, A. and Kolakovic, M. 2003. "Value creation efficiency in the new economy". Available online at: [www.Vaic-on.net](http://www.Vaic-on.net).
- [26]. Ulum, I. 2009. Intellectual Capital konsep dan kajian empiris. Graha Ilmu. Jogjakarta.
- [27]. International Federation of Accounting. 1998. "Summary of IAS 38". Available online at: [www.ifac.org](http://www.ifac.org).
- [28]. <https://www.kajianpustaka.com/2017/11/pengertian-jenis-dan-pengukuran-nilai-perusahaan.html>
- [29]. Sartono, Agus. 2010. **Manajemen Keuangan Teori dan Aplikasi**. Yogyakarta: BPF.
- [30]. Brigham dan Ehrhardt. 2005. **Financial Management Theory & Practice, Eleventh Edition**. Ohio: South Western Cengage Learning.
- [31]. Gitman, Lawrence J. 2006. **Principles of Manajerial Finance. International Edition, 10<sup>th</sup> edition**. Boston: Pearson Education.
- [32]. <https://wartakota.tribunnews.com/2018/01/24/kasus-perselisihan-karyawan-dengan-perusahaan-di-bekasi-meningkat>.
- [33]. <https://kumparan.com/wartabromo/60-perselisihan-antara-pekerja-dan-perusahaan-di-pasuruan-karena-phk>.
- [34]. <http://www.medanbisnisdaily.com/news/read/2016/11/19/269003/gugatan-konsumen-pln-dikabulkan/>.

Astuti Madewi. "The Influence of Intellectual Capital on Corporate Values (Empirical Study of Manufacturing Companies in the Consumer Goods Industry Sector Listed on the Indonesia Stock Exchange in 2015 - 2018)." *IOSR Journal of Economics and Finance (IOSR-JEF)*, 11(2), 2020, pp. 61-74.