

## THE IMPLEMENTATION OF INTELLECTUAL CAPITAL ON THE BUSINESS PERFORMANCE

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**Abstract:** This study aims to determine the relationship of the implementation of Intellectual Capital to Business Performance on the manufacture company in the province of DKI Jakarta. Specially purpose of this research is to know the relationship of the Human Capital with Customer Capital, to know the relationship of the Human Capital with Structural Capital, to know the relationship of the Customer Capital with Business Performance, to know the relationship of the Structural Capital with Business Performance. The sample is that used in this research are 46 manufacturing companies on the province of DKI Jakarta, and the unit of analysis are Finance Manager, Human Resource Development Manager, and Production Manager. Data is that obtained in this research is the primary data with the research instruments such as questionnaires. 60 questionnaires is that assigned, the questionnaire return and meet criteria of author are 46 questionnaires. This research use PLS (Partial Least Square) as a means of testing the hypothetical with the Outer and Inner Model. The processing of data was found that the results of the questionnaire as the primary data which represent each variable have level of good reliability that is above 0.5. Similarly, internal consistency between the independent variables and dependent variables have a both of good validity value is greater than 0.7. For test hypothetical got results that Human Capital associated with significant positive Customer Capital, which is evidenced by the t-statistics are greater than the t-table that is on the  $4.053 > 1.96$ . Human Capital associated with significant positive Structural Capital, which is evidenced by the t-statistics are greater than the t-table that is on the  $7.925 > 1.96$ . Customer Capital has a significant positive relationship to the Business Performance, which is evidenced by the t-statistics are greater than the t-table that is on the  $5.664 > 1.96$ . Structural Capital associated not significantly positive to the Business Performance, which is evidenced by the t-statistic is less than the t-table that is on the  $1.075 < 1.96$ . Last Intellectual Capital is a significant positive relation with the Business Performance, which is evidenced by the t-statistics are greater than the t-table that is on the  $5.436 > 1.96$ .

**Keywords:** Intellectual Capital, Human Capital, Structural Capital, Customer Capital, and Business Performance.

### INTRODUCTION

In the era of globalization, technological innovation and intense competition forced companies to change the way they run their business. In order to continue to survive quickly companies change from a business based on labor (labor-based business) towards a knowledge based business (business based on knowledge), with the main characteristics of science. The increase in the value of capitalization shares are quite high and the difference between the book value of capitalized stocks on knowledge based industries the "missing value" in the financial statements by Stewart (1997) later referred to as intellectual capital. Stewart (1997) in Dwi and Arifin (2005) shows the ratio of book value to market value of shares contained in the balance sheet on a knowledge-based company is 1: 7, while in service companies 1: 1. According to Stewart (1997) of such difference because there intangible asset yang not recorded in the balance sheet by the company.

The company's inability to record intangible assets on its balance sheet due to accounting standards that exist today have not been able to capture and report on the investment incurred in obtaining the resources of non fisik. Investasi non-physical resources that can be captured and reported in accordance with accounting standards currently only limited investment in forms of intellectual property.

Conventional accounting systems do not allow the company to capitalize on intangible assets and reported as other assets. So that the financial statements are no longer sufficient for an assessment of the performance and

potential value of the company. Thus, accounting is also believed to have not been able to do the recognition and measurement of intellectual capital, because the accounting tends to focus on the assets that are real (hard assets) alone. Even if there are intangible assets are recognized and measured in the financial statements, most of them are based on the historical value (historical cost) instead of its potential to add value (Stewart, 1997) in Dwi and Arifin (2005)

The limitations are a challenge for management accounting and financial accounting. Accounting management requires new tools for managing the investment expertise of employees, to measure the return on investment skills of employees, and information and technology in the long term (IFAC, 1998). While financial accounting requires accounting measurements are not the same between the enterprise with one another to show indicators of intellectual capital, and in need of new measurements that are not based on monetary (Upton, 2001) in Partwi and Arifin (2005).

Such challenges arise because at this time, the dominant factor in the assessment of a company, especially for high technology companies and professional service is the intellectual capital (Pike, Rylander & Roos, 2002). Therefore, although it is still not possible to give the monetary value of the intellectual capital, but intellectual capital should be considered that the value creation process easy to understand.

Implementation of intellectual capital is something new, not only in Indonesia but also in the global business environment, only a few developed countries that have begun to implement this concept, for example, Australia, the United States and the Scandinavian countries. In addition, in determining the guidelines on measurement Intangible conducted by researchers at the European institutions such as NORDIC, DATI, and MERITUM also not been able to formulate a similar concept to it. But the companies they studied still report as a Voluntary Intellectual Capital Report, (Toma's and Ramo'n, 2007).

In Indonesia, according to (Abidin 2000) in Ulum (2008) intellectual capital is still not widely known. In many cases, up to now have companies in Indonesia tend to use conventional business based in the building, so that the resulting product is still poor technological content. Besides, these companies do not pay more attention to human capital, structural capital, and customer capital. Yet all of these are elements of the company's intellectual capital builder

Based on the above, the researchers tried to re-examine the relationship between the application of Intellectual Capital elements consisting of Human Capital, Customer Capital and Structural Capital on Business Performance in the manufacturing companies located in the province of DKI Jakarta. For this study, entitled "Relationship Analysis Application of Intellectual Capital on Business Performance: Empirical Research on Manufacturing Company in DKI Jakarta Province".

A problem to be examined in this study can be identified as follows:

1. How is the relationship of the Human Capital Customer Capital in manufacturing companies in the province of DKI Jakarta.
2. How is the relationship of the Human Capital Structural Capital in manufacturing companies in the province of DKI Jakarta.
3. How is the relationship to the Business Customer Capital Performance in manufacturing companies in the province of DKI Jakarta.
4. How Structural Capital relation to the Business Performance in manufacturing companies in the province of DKI Jakarta.
5. How is the relationship consisting of Intellectual Capital Human Capital, Customer Capital, Structural Capital and Business Performance in manufacturing companies in the province of DKI Jakarta.

Based on the identification of the problem above, the purpose of this study was to obtain empirical evidence about:

1. Customer Relationship Human Capital to Capital on manufacturing companies in the province of DKI Jakarta.
2. Relation to Structural Capital Human Capital in manufacturing companies in the province of DKI Jakarta.
3. Customer Relationship Capital and Business Performance in manufacturing companies in the province of

- DKI Jakarta.
4. Structural Relationship Capital and Business Performance in manufacturing companies in the province of DKI Jakarta.
  5. Relationships Intellectual Capital consists of Human Capital, Customer Capital, Structural Capital and Business Performance in manufacturing companies in the province of DKI Jakarta.

With the research is expected to provide benefits such as:

1. Operational

- a. Company

Can provide a practical contribution to the company in the management of Intellectual Capital for corporate decision making or organisasi. Serta into consideration for companies, especially those in DKI Jakarta province to determine its policy on the application of Intellectual Capital in conjunction with the Business Performance.

- b. Investor

For consideration and performance measurement information in business organizations and also the planting stock was going to do with these companies see the Business Performance

- c. creditor

For your consideration, and the information in the provision of loan funds will be provided by looking at the application of Intellectual Capital Business Performance of the company.

2. Usability Sciences Development

- a. Are expected to contribute in the form of a reference for management accounting, in particular those relating to the measurement of the performance of the business organization, the theory of accounting and financial accounting, primarily related to the theory of the intellectual capital, the discussion of intangible assetserta preparation of Statement of Financial Accounting Standards (SFAS) with respect to the existence of intellectual capital ,

- b. Expected to be used as material for further research in the development of knowledge concerning discussion of Intellectual Capital.

- c. For authors

To determine the relationship consisting Intellectual Capital Human Capital, Customer Capital, Structural Capital and Business Performance.

## LITERATURE REVIEW

### Intellectual Capital

Understanding Intellectual Capital by Sawarjuwono (2003):

"Intellectual capital can be defined as the sum of what is produced by the three main elements of the organization (human capital, structural capital, customer capital) related to the knowledge and technology to provide more value for the company in the form of competitive advantage of the organization".

Some definitions of intellectual capital are summarized and quoted in Partiwani and Arifin (2005) are as follows:

- a. Intellectual capital is exclusive, but once discovered and exploited will give the organization a new resource base to compete and win (Bontis, 1996).
- b. Intellectual capital is a term given to a combination of intangible assets from the market, intellectual property, infrastructure and human centers that make a company can function (Brookings, 1996).
- c. Intellectual capital is intellectual material (knowledge, information, intellectual property, experience) that can be used to create wealth. It is a collective sense force or set of knowledge that is useful (Stewart, 1997).
- d. Intellectual capital is the effective utilization of knowledge (the finished product) as oppose to information (raw materials) (Bontis, 1998).

- e. Intellectual capital is considered as an element of the company's market value and also the premium market (Olve, Roy & Wenter, 1999).

### Human capitals

Brinker (2000) in Sawarjuwono (2003) says that the definition of Human capital, namely:

"Human capitals merupakan lifeblood in intellectual capital, where the sumber innovation dan improvement, but it is a component that is difficult to diukur. Human capital is also home bersumbernya very useful knowledge, skills and competencies within an organization or perusahaan. Human capital reflects the company's collective capability to produce a solution based on the best knowledge possessed by the people in the company tersebut.

Human capital will be increased if the company is able to use the knowledge held by employees. (Brinker 2000) also provides some basic characteristics that can be measured from this capital, ie training programs, credentials, experience, competence, recruitment, mentoring, learning programs, individual potential and personality ".

Human capital is the knowledge, skill, and experience brought employees when leaving the company (Starovic & Marr, 2004) which includes the individual's knowledge of an organization that existed at pegawaiannya (Bontis, Crossan & Hulland, 2001) generated through competence, attitude and intellectual intelligence (Roos, Roos, Edvinsson and Dragonetti, 1997), in Dwi and Arifin (2005).

In industries based on knowledge, human capital is a major factor for these resources is the dominant cost in the production process of the company, so we can say if all employees in the company then the company will no longer have value. Resources are what will support the creation of structural capital and customer capital which is the core of intellectual capital.

### Structural Capital

Sawarjuwono (2003) states that:

"Structural capital is the ability of an organization or company to meet the routine of the company and the structure that supports employee efforts to produce intellectual performance is optimal and overall business performance, for example: systems operations, manufacturing processes, organizational culture, management philosophy and all forms of intellectual property yang owned company. An individual can have a high intellectual level, but if the organization has systems and procedures that bad then intellectual capital tidak can achieve optimal performance and potential cannot be fully utilized ".

Structural Capital includes the company's ability to reach the market (Petras, 1996) in Widianingrum (2004) or the hardware, software and other supporting companies (Bontis, 2000) in other words the infrastructure supporting employee performance. Structural Capital is a link human capital into intellectual capital. That is even though employees have high intellectual, but if not supported by adequate means to apply their innovations, the ability will not generate Intellectual Capital.

### Customer Capital

According Sawarjuwono (2003), Capital Customer element is a component of intellectual capital that provides real value. Definition of Customer Capital according Sawarjuwono (2003) are:

"Customer Capital is a harmonious relationship / association network yang owned by the company with its partners, both from suppliers and reliable quality, comes from customers loyal and satisfied will the service company concerned, derived from the company's relationship with the government and with local communities. Relational capital may be emerging from different parts of the environment outside companies that can add value for the company ".

Customer capital demonstrate the potential of the company since ex-firm intangible (Bontis, 1999), in Dwi and Arifin (2005). Another understanding of Customer Capital is the knowledge of a series of markets, customers,

suppliers, relations between government and industry (Bontis, 2000) or a good relationship with outsiders (Petras, 1996) in Widianigrum (2004). So the company had to create goods and services are different and have more value in the eyes of consumers.

### **Business Performance**

According to Fuad (2003: 1), in his book defines business as follows:

"Business is an activity that cannot be separated from the activities of production, purchase, sale, or exchange of goods and services that involve the person or company for the purpose of generating profits".

According to Hakim (2006: 10), the term of performance or performance often associated with the company's financial condition. Performance is an important thing to be achieved by any company anywhere, because the performance is a reflection of the company's ability to manage and allocate resources.

Fisher (1998), and Arifin Dwi (2005) also says that the Business performance depicted in formal control system performance measures include the size of the financial and non-financial. Nancial measures actually show various tindakanyang occur outside the financial sector. Increased financial return is a result from a variety of operational performance include an increase kepercayaankonsumen the products produced by the company, increased cost effectiveness of internal business processes the company uses to produce danmeningkatnya productivity and employee commitment (Mulyadi & Setiawan, 2001), in Dwi and Arifin (2005 ).

### **Customer Relationship Human Capital to Capital**

According to Dwi and Arifin (2005) in his research proves that human capital positively and significantly associated with customer capital. With the tacit knowledgenya, human capital can create value (value creation) ie customer capital for the company. The Company was able to transform tacit knowledge into the knowledge inherent in the company's external relations.

### **Relation to Human Capital Structural Capital**

Bontis (1998) and Partiw (2004) in Dwi and Arifin (2005) also found a significant positive relationship capital dan structural human capital. However, the research Bontis et.al (2000) the relationship of human capital and structural capital depending on the industry sector. The relationship between the structural capital dan capital pada human services industry is positive not significant, while in the non-services industry is a significant positive. Similarly, Dwi and Arifin (2005) which also proves that the human capital positively and significantly associated with structural capital.

### **Customer Relationship Capital and Bossiness Performance**

Companies are investing heavily to become a customer focus and a determinant of absolute market will be able to increase or improve its business performance. Consumer is the key to survive the failure of a company. If consumers are loyal to the company, the business performance will be maintained. Partiw and Arifin (2005) in his research found that the Customer capital and not significantly positively associated with business performance

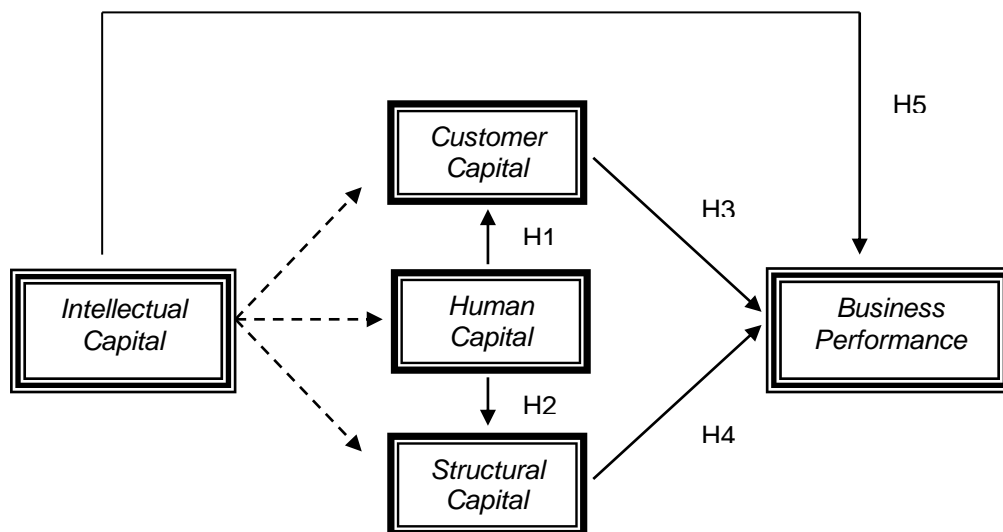
### **Structural Capital Relation to Business Performance**

Judging from the level of organizational analysis, the structural capital akan related to business performance. Bontis (1998); Bontis et.al (2000) and Partiw (2004) in Dwi and Arifin (2005) found a significant positive correlation between structural capital and business performance. Then Partiw and Arifin (2005) conducted a study back and found that the capital is positively related Structural and signifikandengan business performance.

Thus, the company's efforts to codify knowledge of companies and develop structural capital capable of generating competitive advantages relative yield higher business performance.

Conceptual Framework

Figure 1: Relationship Analysis Application of Intellectual Capital to Business Performance



Sources: This Research (2020)

Based on the above framework, the authors formulate hypotheses as follows:

- H1 : Human capital significantly positively associated with Customer Capital
- H2 : Human capital significantly positively associated with Structural Capital
- H3 : Customer capital significantly positively associated with the Business Performance.
- H4 : Structural capital significantly positively associated with Business Performance
- H5 : Intellectual Capital consisting of Human Capital, Customer Capital, Structural Capital significantly positively related to Business Performance

RESEARCH METHODOLOGY

Sampling Design

The object of this research consists of manufacturing companies located in DKI Jakarta Province and is registered in the Department of Industry and Trade of DKI Jakarta Province.

The method used in this research is associative; the research aims to determine the relationship between two or more variables. With this research will be constructed a theory that could serve to explain, predict and control the symptom (Sugiyono, 2007: 11).

The purpose of descriptive research is to describe the situation of widespread problems with the translation of the object being studied and a description of the research that has taken managerial decisions. According Rahayu (2005: 21) analysis is more of a description or explanation by making indicator-table, classifying, analyzing the data based on the results of the questionnaire answers obtained from respondents using data tabulation. This descriptive study used to describe how much the relationship between Intellectual Capital and its elements to the Business Performance in the manufacturing companies located in the province of DKI Jakarta.

According to Mohammad Nazir (2003: 123), the indicator is a concept that has bermacam-wide value. When creating a conceptualization of indicator variables to be studied should be given boundaries and the following explanation:

1. Independent Variable also called independent variables (variables that affect), which is composed of



- Intellectual Capital: Human Capital, Customer Capital, Structural Capital
- Dependent Variables also called the dependent variable (the variable that is affected), the Business Performance

Below is a table Operationalization Variable:

Table 1 variable operationalization

Variabel	Konsep Variabel	Indikator	Ukuran	Skala Pengukuran
<i>Intellectual Capital</i>	Intellectual capital can be defined as the sum of what is produced by the three main elements of the organization (humancapital, structural capital, customer capital) related to knowledge and technology that can provide more value for the company in the form of competitive advantage of the organization.	<i>Human Capital, Customer Capital, Structural Capital.</i>	Likert scale was filled to the extent to which respondents agree with the seven Likert scale (1 = very well at all up to 7 = very well).	Ordinal
<i>Human Capital</i>	Human Capital is the knowledge, skill, and experience brought when employees leave the company that includes the individual's knowledge of an organization that is on employees	H1, H2,H3, H4, H5R, H6, H7, H8.	Likert scale was filled to the extent to which respondents agree with the seven Likert scale (1 = very well at all up to 7 = very well).	Ordinal
<i>Customer Capital</i>	Customer Capital is the knowledge of a series of markets, customers, suppliers, relations between the government and the indicator or good relations with outsiders.	C1, C2, C3, C4, C5, C6, C7, C8.	Likert scale was filled to the extent to which respondents agree with the seven Likert scale (1 = very well at all up to 7 = very well).	Ordinal
<i>Structural Capital</i>	Structural Capital includes the company's ability to reach markets or the hardware, software and others that support the	S1, S2, S3, S4, S5, S6, S7, S8.	Likert scale was filled to the extent to which respondents agree with the seven Likert scale (1 = very well at	Ordinal

	company in other words the infrastructure supporting employee performance.		all up to 7 = very well).	
<i>Business Performance</i>	Described in the formal control system performance measures include the size of the financial and non-financial.	P1, P2, P3, P4.	Likert scale was filled to the extent to which respondents agree with the seven Likert scale (1 = very well at all up to 7 = very well).	Ordinal

Sources: This Research (2020)

Here is a description of the indicator explanation:

**Human Capital (H)**

H1	Level of employee training	H5	The new recruitment system of comprehensive
H2	employee competency	H6	The experience of employees at work
H3	Efforts to improve the skills and education of employees	H7	Performance of employees at work
H4	Intelligence and creativity are owned by employees	H8	Trust company against employee

**Customer Capital**

C1	Image of the company's products	C5	Market Share of Companies
C2	Customer loyalty	C6	Market Oriented Companies
C3	Quality of service to customers	C7	Understanding your target market and customer profiles.
C4	The time given to the customers of the complaints received	C8	Relationships with suppliers

**Structural Capital (S)**

S1	Level routines in the move.	S5	database of companies
S2	Working procedures and bureaucratic system companyan	S6	The company is the most efficient.
S3	The ease in accessing information	S7	The organizational structure and job description in the company
S4	Cultural and working conditions in the company	S8	The procedure supports the innovation and implementation..

**Business Perfomance (P)**

P1	profit growth	P3	The level of success in the launch of new products
P2	sales growth	P4	Overall performance of achievement..

Type of research data is the data subject (self-report data) with the response given by the written and reported responden. Sumber research data is primary data (primary data) obtained directly from the original source, and



through media intermediaries, namely electronic mail. As well as through secondary data is the use of data collected by other parties (library research) related to the research conducted. Sources of data obtained from the Department of Industry and Trade of the Province of DKI Jakarta and manufacturing companies studied

**Research Procedure**

This study was conducted to obtain primary data is collected using a questionnaire survey method with data collection by sending a questionnaire via the contact person and send e-mail to the respondent. In addition, also for obtaining secondary data, a list of manufacturing companies located in the Department of Industry and Trade of the Province of DKI Jakarta.

This research is also done by reading and studying reference books and journals to obtain secondary data as the theoretical foundation that is appropriate to the issues raised.

The population of this research is manufacturing companies listed in the Department of Industry and Trade of the Province of DKI Jakarta, as the sampling framework. Unit ndicato research is financial managers, personnel managers and production managers as the company representative.

The sampling technique used in this research is non probability sampling with the sampling pattern is purposive sampling. The population of this research is manufacturing companies listed in the Department of Industry and Trade of the Province of DKI Jakarta. And the sample in this study is a manufacturing company ndica in DKI Jakarta province and has met the criteria proposed authors. The sampling criteria as follows:

**Table 2 Criteria Sampling**

No.	Criteria	Amount
1	Companies listed in the Department of Industry and Trade of the Province of DKI Jakarta..	603
2	The manufacturing company limited liability and classified into upper and middle companies.	274
3	Manufacturing company which has an investment value of more than Rp. 2.000.000.000, -.	98
4	A manufacturing company that has employees more than 150 people.	60
<b>Sample of Amount</b>		<b>60</b>

Sources: This Research (2020)

Analysis of descriptive indicators used in this study is intended to provide an overview of the demographics of the respondents which include gender, age, education, past, position and tenure disclosed to clarify the description of the respondents. Processing descriptive indicator of respondents are using SPSS software version 12.0 (Statistical Product and Service Solution).

Data quality test conducted on the test reliability and validity test software Partial Least Square (PLS) .Uji reliability intended to measure the internal consistency of a questionnaire which is an indicator of the indicator or construct. Measurement reliability tests conducted by test Composite Reliability  $\geq 0.70$  (Ghozali, 2006: 43).

The data collection is done with the approach of Structural Equation Model (SEM) using software Partial Least Square (PLS) analysis using PLS .In there are 2 things to do are:

1. Assess Outer Model or the Measurement Model. There are three criteria for assessing outer Convengent models: Validity, Diseriminant Validity, and Composite Reliability. Convergent validity of the measurement model with a reflexive indicator assessed based on the correlation between the item score / component score is calculated with the PLS.

the size of the individual reflexive said to be high if more than 0.70 correlated with the construct being measured. Here's the formula for calculating the AVE :

$$AVE = \frac{\sum \lambda_i^2}{\sum \lambda_i^2 + \sum I \text{var} (\epsilon_i)}$$

Source: Ghozali, I (2020)

Where  $\lambda_i$  is the component loading to the indicator and  $\text{var} (\epsilon_i) = 1 - \lambda_i^2$ . Direkomendasikan AVE value must be greater than the value of 0.50.

By using the output generated PLS Composite reliability can be calculated by the formula:

$$pc = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum I \text{var} (\epsilon_i)}$$

Source: Ghozali, I (2020)

Where  $\lambda_i$  is the component loading into indicators and  $\text{var} (\epsilon_i) = 1 - \lambda_i^2$ .

2. Testing inner structural model or models made to look at the relationship between constructs, significance and R-square value of the model penelitian. Pengaruh  $f^2$  magnitude can be calculated with the following formula:

$$f^2 = \frac{R^2 \text{ included} - R^2 \text{ excluded}}{1 - R^2 \text{ included}}$$

Source: Ghozali, I (2020)

Where  $R^2 \text{ included}$  and  $R^2 \text{ excluded}$  is R-square of the dependent latent variables as predictors of latent variables used or issued in the structural equation.  $F^2$  value equal to 0:02, 0:15, and 0:35 can be interpreted that the predictor variables have an influence latent small, medium, and large at a structural level

## DATA ANALYSIS

### Respondent demographics

The sampling technique in this research is using purposive sampling, the sampling technique that is based on specific criteria

Table 3.1 Details Returns Questionnaire

Information	amount	Total
Delivery via Email	16	
Direct Submission	44	
<b>Total Questionnaires were sent</b>		<b>60</b>
Questionnaires were returned by email	14	
Questionnaires were taken directly	32	
<b>Total Questionnaires were returned</b>		<b>46</b>

Total Questionnaires were used		46
Rate of Return (Response Rate) (46/60 x 100%)		76.7 %
Returns are used		76.7 %

Sources: Primary data is processed (2020).

Table 3.2 Location of Manufacturing

No.	Company location	Amount
1.	Serang	18
2.	Cilegon	11
3.	Tangerang	17
<b>Total Company</b>		<b>46</b>

Sources: Primary data is processed (2020).

Table 3.3 Percentage of Business

Type of business	Percentage	Amount
Iron and Steel	28.2 %	13
Chemical material	13.04 %	6
Food and Drink	10.9 %	5
Sandals and Shoes	10.9 %	5
Furniture	8.7 %	4
Electronic	4.34 %	2
Clothes	4.34 %	2
Ceramics	4.34 %	2
Plastic	2.17 %	1
Oil	2.17 %	1
Machine	2.17 %	1
Car	2.17 %	1
Baby gear	2.17 %	1
Cable	2.17 %	1
Paper	2.17 %	1
<b>Total</b>	<b>100 %</b>	<b>46</b>

Sources: Primary data is processed (2020).

### Descriptive statistics

Processing descriptive statistics were used by the author is using SPSS software version 25.0.

Table. 4 Descriptive Statistics

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
name of Respondent	46	1	46	23.50	13.423
Gender	46	1	2	1.28	.455
Respondents age	46	1	4	2.22	.513
Last education	46	1	3	1.93	.442
Position Respondents	46	1	3	1.63	.799
Years of service	46	1	4	2.04	.759
Valid N (listwise)	46				

Sources: Primary data is processed (2020).

Data Quality Testing

1. Test Validity

Testing the validity of the data in this research is to use the Outer Model PLS software that Convergent validity as seen through the square root value of average variance extracted (AVE) of each construct where the value must be greater than 0.5.

Table 5 Average Variance Extracted (AVE)

	Average variance extracted (AVE)	$\sqrt{\text{AVE}}$	Keterangan
CC	0.515	0.717	Valid
HC	0.620	0.787	Valid
SC	0.558	0.747	Valid
BP	0.754	0.868	Valid

Sources: Output *Smart PLS* (2020)

Table 5.1 Average Variance Extracted (AVE)

	Average variance extracted (AVE)	$\sqrt{\text{AVE}}$	Keterangan
IC	0.745	0.863	Valid
BP	0.754	0.868	Valid

Sources: Output *Smart PLS* (2020)

Table 5.2 Correlations of Latent Variables

	CC	HC	SC	BP
CC	1.000			
HC	0.618	1.000		
SC	0.622	0.779	1.000	
BP	0.669	0.486	0.503	1.000

Sources: *Output Smart PLS* (2020)

Table 5.3 Correlations of Latent Variables

	IC	BP
IC	1.000	
BP	0.597	1.000

Sources: *Output Smart PLS* (2020)

Table 5 and 5.1 explain the value of AVE and AVE root of the construct of Human Capital, Customer Capital, Structural Capital, Intellectual Capital and Business Performance. It can be seen that each constructs (variables) have a value AVE 0.5.Hal above shows that each of these constructs has good validity value of each indicator or the questionnaire used to determine the relationship of Intellectual Capital on Business Performance as valid. Another way that can be used to assess the validity of a construct is by comparing the root of the AVE contained in Table 5 and Table 5.1 which is greater than the correlation of the latent variable, which is contained in Table 5.2 and Table 5.3. The results stated that the root of AVE is greater when compared with the correlation of latent variables, it can be interpreted that the statements in the questionnaire declared invalid

**Test Reliability**

Similarly, the reliability test, the authors use the Composite software PLS with Reliability. The data is said to be reliable if, composite reliability of more than 0.7

**Table 6 Composite Reliability**

	<i>Composite Reliability</i>	<b>Keterangan</b>
<b>CC</b>	0.879	Reliabel
<b>HC</b>	0.907	Reliabel
<b>SC</b>	0.881	Reliabel
<b>BP</b>	0.924	Reliabel

Sources: Output *Smart* PLS (2020)

**Table 6. Composite Reliability**

	<i>Composite Reliability</i>	<b>Keterangan</b>
<b>IC</b>	0.897	Reliabel
<b>BP</b>	0.924	Reliabel

Sources: Output *Smart* PLS (2020)

From Table 6 and Table 6.1 can be seen every constructs or latent variables have a value of composite reliability above 0.7 indicating that the internal consistency of the dependent variable (Business Performance) and independent (Intellectual Capital consists of Human Capital, Structural Capital and Customer Capital) have good reliability.

**Hypothesis Testing with Inner Model**

– **Significant Positive Human Capital Associated with Customer Capital**

Based on the data obtained and subsequently processed are presented in tables 7, Human Capital has a positive relationship indicated by the value Original sample estimate for 0618 and significant as indicated by the value of t-statistic 4053 was greater than t-table (1.96) against the Customer Capital, Then said first hypothesis is accepted that human capital has a significant positive relationship with the Customer Capital.

In addition to seeing how much influence among construct one with the other constructs can be seen from the R-square value derived from test-fit model.Uji goodness this is a test of the structural model (Inner Model) .To model of the effect of the Human Capital Customer Capital has R-Square value of 0.381. It can diinterpretasikan that construct Customer Capital variability can be explained by the variability konstruk Human Capital of 38.1% and the rest is explained by other variables outside of the variables studied. This can be seen in table 7.1

**Table 7 Results for inner weights**

<b>Variable</b>	<i>original sample estimate</i>	<i>mean subsamples</i>	<i>of Standard deviation</i>	<i>t-statistic</i>	<b>Hipotesis</b>
<b>HC -&gt; CC</b>	0.618	0.601	0.152	4.053	Diterima
<b>HC -&gt; SC</b>	0.779	0.775	0.098	7.925	Diterima
<b>CC -&gt; BP</b>	0.581	0.573	0.103	5.664	Diterima

SC -> BP	0.141	0.150	0.131	1.076	Ditolak
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Sources: *Output Smart PLS (2020)*

**Table 7. R-Square**

	<i>R-square</i>
CC	0.381
HC	
SC	0.607
BP	0.460

Sources :*Output Smart PLS (2020)*

– **Significant Positive Human Capital Associated with Structural Capital**

Based on the data obtained and subsequently processed are presented in tables 7 Human Capital has a positive relationship indicated by the value Original sample estimate for 0779 and significant as indicated by the value of t-statistics 7925 are greater than t-table (1.96) of the Structural Capital. So we can say the second hypothesis is accepted, the Human Capital has a significant positive relationship with Structural Capital. Moreover, to see how much influence among construct one with the other constructs can be seen from the R-square value that comes from goodness-fit test is a test model to a structural model (Inner Model) .To model of the effect of the Structural Capital Human Capital has a value R-Square of 0607. It can diinterpretasikan that constructs Structural Capital variability can be explained by the variability konstruk Human Capital amounted to 60.7% and the rest is explained by other variables outside of the study. This can be seen in Table 7.1.

– **Customer Capital Associated with Significant Positive Business Performance**

Based on the data obtained and subsequently processed are presented in the table 7Customer Capital has a positive relationship indicated by the value Original sample estimate for 0581 and significant as indicated by the value of 5664 t-statistic greater than t-table (1.96) to the Business Performance. Maka the third hypothesis is accepted can be said that Customer Capital has a significant positive relationship with the Business Performance.

In addition to seeing how much influence among construct one with the other constructs can be seen from the R-square value that comes from goodness-fit test is a test model to a structural model (Inner Model) .To model of the effect of Customer Capital on Business Performance has a value R -Square at 0.460. It can diinterpretasikan that construct Customer Capital variability can be explained by the variability konstruk Business Performance by 46% and the rest is explained by other variables outside studied. This can be seen in Table 7.1

– **Structural Capital Associated with Significant Positive Business Performance**

Based on the data obtained and subsequently processed are presented in Table 7 Structural Capital have a positive relationship indicated by the value Original sample estimate for 0141 and not significant as indicated by the value of t-statistic 1,076 which is less than t-table (1.96) to the Business Performance. it is said that the fourth hypothesis is rejected Structural Capital had no significant positive relationship with the Business Performance.

In addition to seeing how much influence among construct one with the other constructs can be seen from the R-square value that comes from goodness-fit test is a test model to a structural model (Inner Model) .To model of the effect of Structural Capital on Business Performance has a value R -Square at 0.460. It can diinterpretasikan that constructs Structural Capital variability can be explained by the variability konstruk Business Performance by 46% and the rest is explained by other variables outside studied. This can be seen in Table 7.1



– Intellectual Capital Associated with Significant Positive Business Performance

Based on the data obtained and then processed authors presented in Table 8, Intellectual Capital as a whole has a positive relationship indicated by the value Original sample estimate for 0597 and significant as indicated by the value of t-statistic 5436 ie more than t-table (1.96) to Business Performance. Then said fifth hypothesis is accepted that Intellectual Capital has a significant positive relationship with the Business Performance.

In addition to seeing how much influence among construct one with the other constructs can be seen from the R-square value that comes from goodness-fit test is a test model to a structural model (Inner Model) .To model of the effect of Intellectual Capital on Business Performance has a value R -Square of 0357. It can diinterpretasikan that variability Intellectual Capital construct that can dijelaskan by konstruk Business Performance variability of 35.7% and the rest is explained by other variables outside studied. This can be seen in Table 8.1.

Table 8 Results for inner weight

Variable	original estimate	sample mean of subsamples	Standard deviation	T-Statistic	Hipotesis
IC -> BP	0.597	0.611	0.110	5.436	Diterima

Sources: Output *Smart* PLS (2020)

Table 8.1 R-Square

	R-square
IC	
BP	0.357

Sources: Output *Smart* PLS (2020)

CONCLUSION AND DISCUSSION

Based on the discussion that has been done before, it can be summed up as follows:

1. Human Capital significantly positively associated with Customer Capital, as evidenced by the t-statistic is greater than the t-table is 4,053> 1.96 and sample original estimate shows the mean value of 0.618 which correlates positively. This is due to company managers that include financial managers, personnel managers and marketing managers have always sought to maximize the thought of the image products to customers so that customer loyalty is high and the market share and market oriented companies to be increased. This is also supported by the managers of manufacturing companies in the province of DKI Jakarta by always trying to improve the intelligence and competence of its employees through training and education training recruitment system comprehensively, so that got employees who have the intelligence and creativity and work experience satisfactory to the company.
2. Human Capital significantly positively associated with Structural Capital, as evidenced by the t-statistic is greater than the t-table is 7925> 1.96 and original sample estimate shows the value of 0.779 which means correlates positively. It also indicates that manufacturing firms in DKI Jakarta Province has a good managerial system. With easy access to the needed information, culture and work environment that supports, a good database management, the implementation of a clear job description, the resulting company can make efficiency and support the creation of innovation and good implementation of its employees. Which is also supported by the employees who are smart and creative and competent in the field of each, so that the work undertaken will get good results, and employees feel safe and comfortable in work.

3. Customer Capital has a significant positive relationship with the Business Performance, as evidenced by the t-statistic is greater than the t-table is  $5.664 > 1.96$  and sample original 0581 estimate shows significant value correlates positively. This indicates the company has been managing capital such good customer understand the target market, the profile and desires of customers, building good relationships with customers and suppliers. Through this, the company can continue to increase its market oriented and its market share as well as the image of the company's products to be good so that the customer loyalty will continue to increase. And this can affect the level of benefit in terms of profit and sales growth that can be seen with the success in launching a new product and performance achievement keseluruhan manufacturing company which is an indicator of the Business Performance.
4. Structural Capital is not significantly positively associated with Business Performance, as evidenced by the t-statistic is less than t-table is  $1.075 < 1.96$ , but the original sample estimate still shows positive value of 0141 which means that correlate positively. This is because the manufacturing companies in the province of DKI Jakarta have not been able optimally to improve the company's routines and procedures and bureaucratic system that is not fully done so in general this can weaken Business Performance which is owned by the company.
5. Intellectual Capital significantly positively associated with Business Performance, as evidenced by the t-statistic is greater than the t-table is  $5.436 > 1.96$  dan original sample estimate shows the value of 0597 which means that correlate positively. This is because in general manufacturing in DKI Jakarta province has implemented Intellectual Capital on their operations by either consisting of Human Capital, Customer Capital and Structural Capital. With the implementation of intellectual capital then this will affect the level of Business Performance or achievement of better corporate performance. And indirectly will bring benefits in the present and in the future for manufacturing companies in the province of DKI Jakarta in particular.

As for suggestions that can give them the following authors:

1. For Companies  
Companies in general and manufacturing in particular are expected to further implement the Intellectual Capital consists of Human Capital, Structural Capital and Customer Capital is better. Because it was evident from the preceding discussion, by implementing the Intellectual Capital has an influence on the increase in Business Performance of the company, this is because between Intellectual Capital and Business Performance has a positive relationship.
2. For further study  
In further research is expected to expand the scope of the model and used to sample more. So we get a better result and can prove the application of Intellectual Capital in all types of businesses and industries in relation to the Business Performance or the other dependent variables.

## REFERENCES

1. Baridwan, Zaki. *Intermediate Accounting*. Edisi 8. BPFE. Yogyakarta : Yogyakarta. 2019.
2. Bontis, Nick. *et. al. "Intellectual Capital and Business Performance in Malaysian Industries"*. *Journal Of Intellectual Capital*. Vol.1 No.1. Pp 85-100. 2000.
3. Cahyono, Dwi. dan kawan-kawan. *"Pengaruh Moderasi Sistem Pengendalian Manajemen dan Inovasi terhadap Kinerja"*. Simposium Nasional Akuntansi X. Makassar. Pp 1-23. 2007.
4. Dwi Astuti, Partiwidani dan Arifin Sabeni. *"Hubungan Intellectual Capital dan Bussines Performance Dengan Diamond Specification : Sebuah Perspektif Akuntansi"*. SNA VIII Solo. Pp 694-707. 2005.
5. Fuad, M. dan kawan-kawan. *"Pengantar Bisnis"*. PT. Gramedia Pustaka Utama: Jakarta. 2020.
6. Ghozali, Imam. *"Structural Equation Modeling, Metode Alternatif dengan Partial Least Square (PLS)"*. Edisi 2. Badan Penerbit Universitas Diponegoro: Semarang. 2020.
7. Hakim, Rahman. *"Perbandingan Kinerja Keuangan Perusahaan Dengan Metode EVA, ROA, dan Pengaruhnya terhadap Return Sabam pada Perusahaan yang Tergabung dalam Indeks LQ 45 di Bursa Efek Jakarta"*. Fakultas Ekonomi. Universitas Islam Indonesia : Yogyakarta. 2006.
8. Hong, Pew Tan., David Plowman dan Phil Hancock. *"Intellectual Capital and Financial Returns of Companies."* *Journal of Intellectual Capital*. Vol 8, No. 1, 76-95. 2007.

9. Ikatan Akuntan Indonesia. “Standar Akuntansi Keuangan Per 1 January 2020”. Salemba Empat : Jakarta. 2020.
10. Kuryanto, Benny dan M. Syarifudin. “Pengaruh Modal Intelektual terhadap Kinerja Perusahaan”. Simposium Nasional XI. Pontianak. Pp 1-22. 2008.
11. Lisvery, Saoria dan Irma Y. Ginting. “Aktiva Tidak Benjjud”. Jurnal Akuntansi dan Keuangan Vol 1, Pp 1-15. 2004.
12. M. Banegil P, Tomas’s and Ramo’n Sanguino G. “Intangible measurement guidelines : a comparative study in Europe”. *Journal Intellectual Capital (JIC)*. Pp 192-204. 2007.
13. Nazir, Moh. “Metode Penelitian”. Ghalia Indonesia : Jakarta. 2003.
14. Rahayu, Sri. “SPSS Versi 12.00 dalam Riset Pemasaran”. ALFABETA : Bandung. 2019.
15. Rupidara, Neil Samuel. “Modal Intelektual dan Strategi Pengembangan Organisasi dan Sumber Daya Manusia”. Paper. Universitas Kristen Satya Wacana. Pp 1-17. 2008.
16. S.R., Soemarso. “Akuntansi Suatu Pengantar”. Edisi 5. Salemba Empat : Jakarta. 2005.
17. Sawarjuwono, Tjiptohadi dan Agustine Prihatin Kadir. “Intellectual Capital: Perlakuan, Pengukuran dan Pelaporan (Sebuah Library Research)”. *Jurnal Akuntansi dan Keuangan*. Vol 5, No 1, Mei, Pp 35 – 57. 2003.
18. Sugiyono. “Metode Penelitian Bisnis “. Alfabeta : Bandung. 2020.
19. Ulum, Ihyaul., Imam Ghazali dan Anis Chariri. “Intellectual Capital dan Kinerja Keuangan Perusahaan; Suatu Analisis dengan Pendekatan Partial Least Square”. Simposium Nasional Akuntansi XI. Pontianak. Pp. 1-32. 2008.
20. Widyaningrum, Ambar. “Modal Intelektual”. *Jurnal Akuntansi dan Keuangan Indonesia*. Vol 1, pp 16-25. 2004.