

Intellectual Capital to the Firm Value With Profitability as Intervening Variable

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Abstract— In order to compete competitively, the principle of corporate management must be changed by applying knowledge-based business based company. Intellectual capital is believed to play an essential role in improving corporate value and financial performance. The purpose of this paper is to find an effect of Intellectual Capital on the company's value by considering the variable of profitability. Method of this research is using a quantitative descriptive. The findings of this paper can provide new insights and contribute to the development of theory, especially with regard to the understanding of value-added information generated by intellectual capital and its implications for firm value an also have practical suggestion on decision making to assess a company and as a source of information and references on the relevance of Intellectual Capital in the financial statements.

. Keywords—intellectual capital, firm value, profitability

I. INTRODUCTION

The development of the business world is now progressing very rapidly, and the competition is so tight. Currently, the growth of the manufacturing sector in Indonesia contributes significantly to the national economy. The manufacturing industry again recorded growth amid slowing growth in the national economy and the global economic downturn. To be able to continue to maintain its existence, the company must be ready to compete and develop. One of the company's primary goals is to maximize the company's wealth or value. Along with increasing the value of the company, it will determine the perception of investors to the success rate of a company that is often associated with stock prices and profitability. In order to compete competitively, the principle of corporate management must be changed by applying knowledge-based business based company.

Intellectual capital includes all knowledge of employees, organizations, and their ability to create added value and produce sustainable competitive advantage [3]. There will be no competitive advantage in the scope of the market if the resources within the company do not know. Intellectual capital is an important thing that must be owned by the company to encourage its business. Thus science as intellectual capital is needed. Value Added Intellectual Capital (VAIC TM) is an indirect method of measuring how

and how the efficiency of intellectual capital and employee capital creates value that is based on the relationship of three main components, namely capital employed, human capital and structural capital [10]. In the new economy, intellectual capital is a prominent resource to generate wealth and growth, and it is also a reliable company performance enhancer and a market value booster [23]; [18].

Intellectual Capital (IC) is an approach used in the assessment and measurement of knowledge-based business [9]. Intellectual capital as an approach to determine the value of the company because it can generate added value for the company. Intellectual capital is believed to play an essential role in improving corporate value and financial performance. Signals or signals are actions taken by the company to provide clues to investors about how management views the prospects of the company [4]. This signal is information about what has been done by the administration to realize the desire of the owner. A report issued by the company is vital because of its influence on investment decisions by investors. The information is essential for investors and business people because information mainly presents information, notes or images, whether for the past, present and future conditions for continuity the life of the company and how its effect on the company.

Companies that can utilize their intellectual capital efficiently, then it's market value will increase. A company has good value if the company's performance is also excellent. Investors in investing first will see how the performance and value of the company if the performance of the company is unique, then investors will be interested in investing in the company. The primary goal of the company is to increase the value of the company to maximize shareholder wealth. Company value can be reflected through the stock price. The higher the stock price means, the higher the rate of return to the investor. According to the shareholder theory, the primary purpose of a firm is usually defined as value maximization (for shareholders). By this, we refer to a maximization of a firm's equity, which is, in fact, the present value of expected benefits (cash flows) that shareholders can expect from the firm [7]. According to this definition, a firm's value can be maximized only when expected benefits are optimized in the long-run. Company's primary goal was to maximize company value [14]. The amount of the firm describes the investor's view of the



company. If the company can provide prosperity to its shareholders, then the public will judge that the company has a high value as reflected by its share price. This study aims to test how much influence intellectual capital to the firm value in a corporate environment, especially manufacturing companies listed on the Indonesia Stock Exchange period 2014-2016 mediated by profitability variables.

II. METHOD

Method of this research is using a quantitative descriptive. There is 22 sample of 144 manufacturing companies listed in Indonesian Stock Exchange from 2014 to 2015. This study uses secondary data which is obtained from the financial report published by the Indonesian Stock Exchange. Data analysis in this study is using Path Analysis method.

III. RESULT AND DISCUSSION

A. Descriptive statistics

This section presents the values for minimum, maximum, mean, and standard deviation for each of used variables in the research (Table 1), after which we point to the normality tests for the given variables and research sample. The basic test of normality applied for this purpose is the Kolmogorov–Smirnov test. The results of the normality test are presented in Table 2. The results of the normality test show that the analyzed variables have a normal distribution of data (p > 0.05).

Table 1

	N	Minimum	Maximum	Mean	Std. Deviation
IC	66	2.28	14.75	5.6729	3.11691
NP	66	.10	5.68	1.6573	1.27819
PROFIT	66	-1.51	22.19	9.2264	6.05723
Valid N	66				

Table 2

Mod	Sig	5%
X to Y	0,226	0.05
X & Z to Y	0,170	0.05

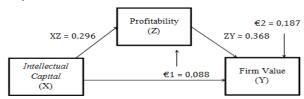
Linearity test aims to know the proven model which is a linear model or not. Linearity test is also done by using curve estimation, that is a description of a linear relationship between variable X with variable Y. If the value of sig f <0,05, then variable X have a linear correlation with variable Y.

Table 3

Model	F	Sig.	5%
X to Y	4.252	0.04 3	0.05
X to Z	5.266	0.02 5	0.05
Z to Y	14.763	0.00	0.05

Based on the results of the above output shows that the value of sig < 0.05, then the linear assumption is met.

Path Analysis



B. Effect of Intellectual Capital to the Profitability

Based on the result of research indicate that intellectual capital has a significant impact on profitability. This is due to the significant value shows smaller than the level of significance is determined, meaning that intellectual capital significant effect on profitability. The amount of standardized coefficient beta shows that intellectual capital has a positive and significant impact on profitability, meaning H1 is accepted.

In the context of the intellectual capital relationship with profitability, the stakeholder theory [8] is more appropriately used as the primary basis for explaining the relationship of intellectual capital with profitability. In this context, employees have been successfully placed and positioned themselves as corporate stakeholders, maximizing their intellectual abilities (skills, knowledge, networks, and minds) to create value for the company. Therefore, stakeholders in the company have an interest in influencing management in the process of utilization of all potentials owned by the company, either employee (human capital), physical assets (physical capital), and structural capital. Because only with management can create valueadded (in this case called VAIC TM) to drive the financial performance of the company then. The results of this study support the results of research conducted by [2], [11], [16], and [13] stating that intellectual capital has a positive effect on profitability.

C. Effect of Intellectual Capital to the Firm Value

Based on the result of research indicate that intellectual capital has no significant impact on company value. This is due to the substantial amount suggests more significant than the specified significance level, meaning H2 is rejected. According to the theory of legitimacy [17], the company will be encouraged to demonstrate its intellectual capital capacity in the financial statements to gain legitimacy from the public over its intellectual property. Recognition of this public legitimacy becomes essential for the company to maintain its existence in the corporate social environment. Therefore the information on intellectual capital is needed by the public, especially investors. However, the results of this study state that manufacturing companies have not maximally developed its intellectual property to compete. This is due to the lack of information obtained by investors regarding intellectual capital that has not been able to serve



as a tool for decision making. This is where the market rewards of a company are based solely on the physical resources it has so the market does not provide a high rating to the company.

The results of this study differ from research conducted [12] and [20]. If it is associated with a company, we are taught to do good to the community, do not do damage on earth so as not to make people disappointed and cultivate an excellent image to gain public trust, especially trust from the investor.

D. Effect of Profitability to the Firm Value

Based on the result of research indicate that profitability is having a significant impact on company value. This is due to the significant amount indicates smaller than the specified significance level. The value of standardized coefficient beta shows that profitability has a positive and significant effect on profitability, meaning H3 is accepted.

The results of this study by the signaling theory [15]. In this study, it is emphasized that the company can increase the value of the company by giving a signal to investors through the reporting of information related to the profitability of the company to provide an overview of business prospects in the future. The higher the profitability figures listed in the company's financial statements, the better the financial performance of the company. The growth of these prospects by investors will be caught as a positive signal to increase the value of the company in the eyes of investors, as reflected by the rising stock price of the company. The results of this study supported by the results of the research proposed by [5] and [19].

The above argument shows that it is possible to seek profit by buying and selling activity. It is possible to find the great advantage is absolute, concerning how much profit. This means that there is no maximum profit limit set by sharia. Therefore, if associated with a company, when the company tries to increase its profitability, it will increase its share price. The rising stock price reflects excellent corporate value for investors.

E. Effect of Intellectual Capital to the Firm Value Through Profitability

Based on the results of the first significant test results obtained that the variable intellectual capital significant effect on profitability. In the test results of both profitability variables significantly influence the value of the company. The results of this study succeeded in proving the researcher's suspicion about the influence of profitability that mediate the relationship between intellectual capital and company value. Theoretically, an intellectual property managed efficiently by the company will increase the market appreciation of the market value of the company because the utilization of intellectual capital effectively and efficiently will contribute significantly to the achievement of competitive advantage which in turn will produce good company performance. Good corporate performance and the

presence of intellectual capital reporting, besides, will help deliver the company on a good performance. Moreover, with the excellent performance shown by the company, it will attract investors to invest in the company so that the company's market value will increase [24]. The results of this study are in line with research conducted by [21], and [22].

IV. CONCLUSION

Based on the results of the first significant test results obtained that the variable intellectual capital considerable effect on profitability. In the test results of both profitability variables significantly influence the value of the company. The results of this study succeeded in proving the researcher's suspicion about the influence of profitability that mediate the relationship between intellectual capital and company value. Theoretically, an intellectual property managed efficiently by the company will increase the market appreciation of the market value of the company because the utilization of intellectual capital effectively and efficiently will contribute significantly to the achievement of a competitive advantage which in turn will produce excellent company performance. Good corporate performance and the presence of intellectual capital reporting, besides, will help deliver the company on a good performance. Moreover, with the excellent performance shown by the company, it will attract investors to invest in the company so that the company's market value will increase [24]. The results of this study are in line with research conducted by [21], and [22].

REFERENCES

- [1] Agusta, Alwin dan Agustinus S A. 2017. Analisis Pengaruh Modal Intelektual terhadap Profitabilitas, Produktifitas, dan Penilaian Pasar Perusahaan (Studi Kasus pada 35 Perusahaan LQ45 di Bursa Efek Indonesia Periode 2012-2014). Diponegoro Journal of Accounting. Vol. 6 No. 2 Hal 1-11.
- [2] Bidaki, Soheila and Hejazi, Rezvan. 2014. Effects of profitability on the Intellectual Capital Disclosure in listed Companies in Tehran Stock Exchange. International Journal of Education and Applied Sciences Volume 1, Number 5, 248-255, October 2014 http://www.injoeas.com ISSN: 2345-6728
- [3] Bontis, Nick, William Chua Chong Keow dan Stanley Richardson. 2000. Intellectual Capital and Business Performance in Malaysian Industries. *Journal of Intellectual Capital*
- [4] Brigham, Eugene F. dan Joel F Houston. 2012. Fundamentals of Financial Management (with Thomson ONE - Business School Edition), 13th Edition. South-Western Cengage Learning 5191 Natorp Boulevard Mason, OH 45040 USA.
- [5] Chen, Li-Ju and Chen, Shun-Yu. 2011. The influence of profitability on firm value with the capital structure as the mediator and firm size and industry as moderators. Investment Management and Financial Innovations, Volume 8, Issue 3, 2011.
- [6] <u>Dimitrios Maditinos, Dimitrios Chatzoudes, Charalampos Tsairidis, Georgios Theriou</u>, (2011) "The impact of intellectual capital on firms' market value and financial performance," Journal of Intellectual Capital, Vol. 12 Issue: 1, pp.132-151, https://doi.org/10.1108/14691931111097944
- [7] Dolenc, Primož ., Igor STUBELJ and Suzana LAPORŠEK. What is the Objective of a Firm? Overview of Theoretical Perspectives. Overcoming the Crisis: Economic and Financial Developments in Asia and Europe Edited by Štefan Bojnec, Josef C. Brada, and Masaaki Kuboniwa



- $\frac{http://www.hippocampus.si/ISBN/978-961-6832-32-}{8/contents.pdf}.$
- [8] Freeman, R. E., and Reed, D. L. 1983. Stockholders and stakeholders: A new perspective on corporate governance. California Management Review 15 (3): 88 106.
- [9] Gogan, Luminita-Maria, Frank Rennung, Gabriela Fistisc, and Anca Draghici. 2014. A proposed tool for managing intellectual capital in small and medium-sized enterprises. Procedia Technology 16 (2014) 728 – 736
- [10] Karimi, Arman and Gholami, Keyvan. How to Measure the Intellectual Capital (IC) of an Organization or Financial Institutions?. Bulletin of Environment, Pharmacology and Life Sciences Bull. Env. Pharmacol. Life Sci., Vol 3 (Spl issue II) 2014: 291-295 ©2014 Academy for Environment and Life Sciences, India Online ISSN 2277-1808.
- [11] Mohammadi, Shaban. 2014. The Impact of Intellectual Capital Performance on the Profitability of Companies: Evidence from Tehran Stock Exchange. International Letters of Social and Humanistic Sciences Vol. 61 (2015) pp 129-137 Online: 2015-10-05© (2015) SciPress Ltd., Switzerland. doi:10.18052/www.scipress.com/ILSHS.61.12.
- [12] Nuryaman. 2012. The Influence of Intellectual Capital on The Firm's Value with The Financial Performance as Intervening Variable. <u>Procedia - Social and Behavioral Sciences</u> <u>Volume</u> <u>211</u>, 25 November 2015, Pages 292-298
- [13] Radic, Siniša. 2018. THE IMPACT OF INTELLECTUAL CAPITAL ON THE PROFITABILITY OF COMMERCIAL BANKS IN SERBIA ECONOMIC ANNALS, Volume LXIII, No. 216 / January March 2018 UDC: 3.33 ISSN: 0013-3264.
- [14] Siallagan, Hamonangan and Machfoedz, Mas'ud. 2006. Mekanisme Corporate Governance, Kualitas Laba dan Nilai Perusahaan. SNA 9 Padang.
- [15] Spence, Michael. 1973. Job Market Signaling. The Quarterly Journal of Economics, Vol. 87, No. 3. (Aug. 1973), pp. 355-374.
- [16] Suherman, Richard. 2017. The Impact of Intellectual Capital toward Firm's Profitability and Market Value of Retail Companies Listed in Indonesia Stock Exchange (IDX) from 2013-2016. iBuss Management Vol. 5, No. 1, (2017) 98-112.
- [17] <u>O'Donovan, Gary</u>, (2002) "Environmental disclosures in the annual report: Extending the applicability and predictive

- power of legitimacy theory," Accounting, Auditing & Accountability Journal, Vol. 15 Issue: 3, pp.344-371, https://doi.org/10.1108/09513570210435870
- [18] Tseng, K., Lan, Y., Lu, H., & Chen, P. (2013). Mediation of strategy on intellectual capital and performance. Management Decision. https://doi.org/10.1108/MD-03-2012-0143
- [19] Tui, Sutardjo, Mahfud Nurnajamuddin, Mukhlis Sufri, Andi Nirwana. 2017. Determinants of Profitability and Firm Value: Evidence from Indonesian Banks. IRA-International Journal of Management & Social Sciences ISSN 2455-2267; Vol.07, Issue 01 (2017) Pg. no. 84-95 Institute of Research Advances http://research-advances.org/index.php/RAJMSS.
- [20] Tripathy, Trilochan and Sar, Ashok Kumar and Sahoo, Debadatta, The Effect of Intellectual Capital on Firms' Valuation: An Empirical Investigation with Reference to India (June 3, 2015). The IUP Journal of Applied Economics, Vol. XIII, No. 3, July 2014, pp. 45-68. Available at SSRN: https://ssrn.com/abstract=2613859
- [21] Sunarsih, Ni Made. dan Ni Putu Yuria Mendra. 2012. Pengaruh Modal Intelektual Terhadap Nilai Perusahaan Dengan Kinerja Keuangan Sebagai Variabel Intervening Pada Perusahaan Yang Terdaftar Di Bursa Efek Indonesia. Simposium Nasional Akuntansi XV.
- [22] Solikhah, Badingatus, Abdul Rohman, Wahyu Meiranto. 2010. Implikasi Intellectual Capital terhadap Financial Performance, Growth dan Market Value; Studi Empiris dengan Pendekatan Simplisitic Specification. Simposium Nasional Akuntansi XIII
- [23] Wang, W., & Chang, C. (2005). Intellectual capital and performance in causal models. Journal of Intellectual Capital, 6(2), 222–236. https://doi.org/10.1108/14691930510592816
- [24] Yunita, Indah. 2011. Analisis Pengaruh Porfitabilitas, Kebijakan Utang, Kebijakan Dividen, Size, dan Mekanisme Good Corporate Governance terhadap Nilai Perusahaan (Studi Kasus pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2005-2010). Tesis. Semarang: Universitas Diponegoro.