

The Effect of R&D intensity, intellectual capital and managerial ability on firm's performance with political connection as a moderating variable

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ABSTRACT

This study aims to examine and analyze the effect of Research and Development (R&D) intensity, intellectual capital, and managerial ability on firm's performance both directly and indirectly moderated by political connection. This study uses manufacturing sector firms listed on the Indonesia Stock Exchange which were selected using a purposive sampling method, with a total of 119 data observations (2013 - 2017) and using a quantitative approach. This study uses multiple linear regression analysis and hierarchical regression analysis. The results of the study prove empirically that the firm's performance can be improved by increasing the intensity of R&D and intellectual capital. The existence of political connections can strengthen the influence of the relationship of R&D intensity on a firm's performance. The firm's performance is not related to managerial ability and political connection cannot strengthen or weaken the influence of intellectual capital on managerial performance and ability.

ABSTRAK

Penelitian ini bertujuan untuk menguji dan menganalisa pengaruh intensitas Research and Development, modal intelektual, dan kemampuan manajerial terhadap kinerja perusahaan baik secara langsung maupun dimoderasi oleh koneksi politik. Penelitian ini menggunakan perusahaan sektor manufaktur yang tercatat di Bursa Efek Indonesia yang dipilih menggunakan metoda purposive sampling, dengan jumlah observasi sebanyak 119 data (2013 - 2017) dan menggunakan pendekatan kuantitatif. Penelitian ini menggunakan analisis regresi linier berganda dan hierarchy regression analysis. Hasil penelitian membuktikan secara empiris bahwa kinerja perusahaan dapat ditingkatkan dengan meningkatkan intensitas R&D dan modal intelektual. Adanya koneksi politik dapat memperkuat pengaruh hubungan intensitas R&D terhadap kinerja perusahaan. Kinerja perusahaan tidak berhubungan dengan kemampuan manajerial dan koneksi politik tidak dapat memperkuat atau memperlemah pengaruh modal intelektual terhadap kinerja dan kemampuan manajerial.

1. INTRODUCTION

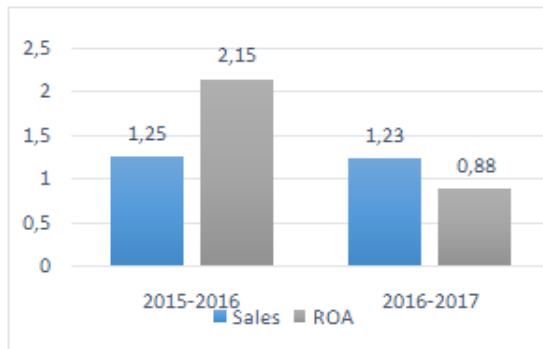
Performance is a work that can be achieved by a person or group in an organization by their authority and responsibilities to achieve organizational goals (Aziz, 2008). In business organizations, producing optimal performance is the main motivation of the firms to continue carrying out business operations (Górriz & Fumás, 1996). This assumption is not always in line with expectations and firms often

experience a decline in performance and even experience liquidation. The decline in performance can be caused by the decline in company sales and the decline in Return on Assets.

Research and Development (R&D) is one of the firms' intangible assets to improve firms' performance. Creating innovation and new technology is certainly neither easy nor cheap. R&D activities have an important role

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and contribution to firm's innovation (Crepon, Duguet, & Mairesse, 1998; B. H. Hall, Lotti, & Mairesse, 2013). The success of an R&D can provide a competitive advantage for firm because it can be a differentiation strategy to help exists in a global competition (Darmawan, Suharyono, & Iqbal, 2015).



Grafic 1
Sales growth and Return on Assets (ROA) of manufacturing firms' listed on the Indonesia Stock Exchange in 2015-2017

Source: idx.co.id

Intellectual capital information is one of the information needed by investors. This is because intellectual capital information can help investors to better assess the capability of the firms in creating wealth in the future. Developments regarding intellectual capital have attracted the attention of several researchers over the past few years. Verduijn (2013) research results show that intellectual capital can improve firms' performance in Poland and the Netherlands. This proves that intellectual capital can be one indicator to predict firms' performance in the future.

Intangible assets such as managerial ability can also affect firms' performance. A very well-known manager can make investment strategies to improve firm performance (Hall, 1992). Measuring managerial ability or talent is central to many important questions in research. Managerial ability is measured using data envelopment analysis (DEA) (Demerjian, Lev, & McVay, 2012).

The politically-connected firms will get many benefits including high leverage, low tax pay, high market power, and high market share when compared to the firms without political connection. This proves that a firm with political connection becomes stronger when compared to those without political connection (Faccio, 2006).

Several previous studies tested the relationship between R&D intensity. For example, the research of Lu, Tsai, & Yen (2010) found that the R&D intensity influences firm's value. Unlike the case with Wardana (2018), the result showed that the high R&D expenditure did not affect firm's performance. Research related to intellectual capital with firm's performance including Verduijn (2013) shows that intellectual capital has a positive effect on firm's performance, while research by Daud & Amri (2008) shows a negative effect on firm's performance. Associated with managerial ability variables studied by Andreou, Karasamani, Louca, & Ehrlich (2017) showed positive results with firm's performance while Demerjian, Lev, & McVay (2012) research showed negative results.

Based on the inconsistency of the results of previous studies, the researchers are motivated to use moderating variables. The moderating variable used in this study is political connection. The use of political connections as a moderating variable is based on the Resource Dependence Theory (RDT). It explains that R&D is one way the firm reduces the uncertainty of the external environment (Hillman & Dalziel, 2003; Pfeffer & Salancik, 1978).

This study aims to prove empirically the influence of R&D intensity, intellectual capital, and managerial ability on firms' performance with political connection as a moderating variable.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

In Barney's (1991) point of view suggests that with Resource-Based View (RBV), firms can utilize and manage all its resources to get better performance and competitive advantage by owning, controlling, and utilizing important strategic assets, both tangible or intangible. The intensity of R&D, intellectual capital, and managerial ability is the development of intangible assets that were not initially taken into account by the firms. This theory can help managers in understanding that all firms' resources can improve firm's performance through their excellence.

The existence of political connection can also affect firm's performance, because the purpose of political connection can be explained by the Resource Dependence Theory (RDT) which explains that one way firms reduce the uncertainty of the external environment is

by building political connection (Hillman & Dalziel, 2003; Pfeffer & Salancik, 1978). They will provide the firm with a stronger resource base such as links to government, advisors, advice, and experience. Previous literature (Mitchell & Joseph, 2010) has stated that political connection is valuable assets that firms can have to minimize external risks, especially in developing countries.

In this study, the political connection variable is considered to strengthen the influence of R&D intensity, intellectual capital, and managerial ability on firm's performance because with political connection the firms become stronger (Faccio, 2006). Besides that, they can get protection from the government, obtain access to capital loans easily, low risk during a tax audit. Also, they firmly get special rights from the government, for example during a financial crisis; it is easy for firms to get bailouts from the government (Kim & Zhang, 2013).

The Effect of R&D Intensity on Firms Performance

Resource Based Theory (RBT) states that a firm can utilize all of its strategic resources to create competitive advantage. The firm will excel in competing with other firms and get good performance (Wernerfelt, 1984). In addition, R&D is part of intangible assets that are not widely calculated by firm. R&D activities can provide a competitive advantage for a firm because R&D is a differentiation strategy of a firm' to be able to survive in this era of global competition.

Several previous studies have examined the relationship between R&D and performance. For example, a study by Hajiheydari, Dastgir, & Soltani (2011); Sampurno (2007) found that increased spending on R&D leads to increase sales, and the firm's profitability. A study by Gleason & Klock (2006) and Black, Jang, & Kim (2006) also found that R&D is positively related to Tobin's-q. This shows that the higher R&D undertaken by firms will have a strong impact on improving the firm's performance.

H1: The R&D intensity has a positive effect on firm's performance.

The Effect of Intellectual Capital on Firm's Performance

Intellectual capital is a part of intangible assets that are merely not taken into account by the firm. It is predicted to affect the firm's performance. Intellectual capital is an economic

value of a firm based on knowledge and in the form of intangible assets so that it can be added value to the firm. Pulic (1998) has developed a method designed to present information about the Value creation efficiency of tangible assets and intangible assets owned by the firm. The method was then known as the VAIC™ (Value Added Intellectual Capital) method, which consists of three indicators, namely capital employed (CE), human capital (HC), and structural capital (SC).

Research by Ulum (2007), Verduijn (2013) and Gigante (2013) found that intellectual capital has a positive effect on firm's performance. However, not all of them show a positive result.

H2: Intellectual capital has a positive effect on firm's performance.

The Effect of Managerial Ability on Firms Performance

Hall (1992) shows that very well-known managers can make strategic investments to increase the firm's value. Some researchers use DEA to measure managerial skills in the firm in one industry. Murthi, Srinivasan, & Kalyanaram (1996) used DEA to form estimates of management skills, while Leverty & Grace (2012) used DEA to measure managerial ability and found that more capable managers were associated with lower probability of bankruptcy. They also show that more capable managers are better at predicting future earnings.

H3: Managerial ability has a positive effect on firm's performance.

Political Connection Moderates the Effect of R&D Intensity on Firm's Performance

The political connection can help in reducing external financing and allocate external funding efficiently (Zhang & Guo, 2019). Besides, the political connection can assist in external lenders in conducting firms R&D activities and innovative activities (Ades & Tella, 1999; Boerner & Hainz, 2009; Dreher, Kotsogiannis, & McCorriston, 2007). The higher R&D carried out by the firms will have a strong impact on the increase in firms' performance (Gleason & Klock, 2006).

H4: Political connection strengthens the positive influence of R&D intensity on firm's performance.

Political Connection Moderate the Effects of Intellectual Capital on Firm's Performance

Intellectual capital is human resource that can

affect productivity services (Penrose, 2009). Therefore, the firms must be able to build a positive perception of the market so that their performance will improve. Market value can increase if the firm's intellectual capital is well made use (Chen, Cheng, & Hwang, 2005). With the connection of political connection, it can affect the increase in firm's intellectual capital in terms of capital structure and equity (Pulic, 1999).

H5: Political connection strengthens the positive influence of intellectual capital on firm's performance

Political Connection Moderate the Effect of Managerial Ability on Firm's Performance

The existence of political connection within the firms can affect the managers' ability because the preparation of the firms' strategies in competition can find and take advantage of opportunities in the business environment (Leuz & Oberholzer-Gee, 2006). Faccio, Masulis, & McConnell (2006) explain that, to obtain good financial performance, the firms make a political connection. Chaney, Faccio, & Parsley (2011) found that politically connected firms have lower performance compared to those which do not have a political connection on an accountant basis.

H6: Political connection strengthens the positive influence of managerial ability on firm's performance.

3. RESEARCH METHOD

The study population is manufacturing sector firms listed on the Indonesia Stock Exchange (IDX) from 2013 to 2017. The researcher uses a purposive sampling method to take samples. Sample criteria are manufacturing sector firms that publish annual reports for 5 years in 2013, 2014, 2015, 2016 and 2017 and firms that have complete data related to all indicators of research variables.

The dependent variable is firming performance measured using Tobin's-q ratio. Tobin's-q is calculated using the market value of ordinary shares, the book value of preferred shares and the book value of long-term liabilities, divided by the book value of total assets. The market value of ordinary shares is calculated by multiplying the stock market price at the end of the fiscal year by the number of ordinary shares outstanding (Villalonga & Amit, 2006).

The independent variable, namely R&D intensity, is calculated using R&D costs divided

by total assets (Lu et al., 2010). Intellectual capital is measured using VAICTM (Pulic, 1998), by calculating $VA = OUT - IN$, $VACA = VA / CA$ where CA is physical capital or available funds (equity), $VAHU = VA / HC$ where HC is human capital or employee expense, and $STVA = SC / VA$ where SC is structural capital or $VA - HC$. On the contrary, managerial ability is measured using DEA with sales indicators as output and seven other accounting inputs, consisting of the cost of goods sold, SG&A, PP&E, operating leases, R&D, goodwill, and Otherintangible (Demerjian et al., 2012).

The moderating variable, namely political connection, is calculated by the natural logarithm of the total score of political connection in the firm plus one point. Or, it can be formulated with $LN(PCINDEX) = LN(1 + PCINDEX)$. This calculation is used based on the consideration of a skewness index of political connection and the fact that some firms do not have a connection (Tao, Sun, Zhu, & Yang, 2017). Political connection within the firms will be scored according to position/status and status so that its score ranges from a score of 0 (no political connection) to a score of 9 (the highest level as a minister Civil (PNS) in Indonesia (Supatmi, T, Saraswati, & Purnomosidhi, 2019)).

Data analysis in this study was done using two types of regression analysis namely, multiple regression analysis and Hierarchy Regression Analysis.

$$KP = \alpha + \beta_1 IRD_{it} + \beta_2 IC_{it} + \beta_3 MA_{it} + \epsilon_1$$

$$KP = \alpha + \beta_4 IRD_{it} + \beta_5 IC_{it} + \beta_6 MA_{it} + \beta_7 PC_{it} + \epsilon_2$$

$$KP = \alpha + \beta_8 IRD_{it} + \beta_9 IC_{it} + \beta_{10} MA_{it} + \beta_{11} PC_{it} + \beta_{12} PC_{it} * IRD_{it} + \beta_{13} PC_{it} * IC_{it} + \beta_{14} PC_{it} * MA_{it} + \epsilon_3$$

Details:

KP: The firm's performance in the firm's i year-t.

α : A constant

$\beta_1 - \beta_7$: The coefficient of the independent variable in the firms i year-t

IRD: The intensity of R&D in the firms i year-t

IC: Intellectual capital in the firms i year t

MA: Managerial ability in the firms i year t

PC: Political connection to the firms i year to t

ϵ : Error

4. DATA ANALYSIS AND DISCUSSION

Descriptive statistics describes that the characteristics of research data which include minimum, maximum, average, and standard deviation values.

In this study, the approach used to measure and analyze the level of efficiency of managerial ability was done by using the Data Envelopment Analysis (DEA) approach with the assumption of managerial ability variables that are output-oriented. A firm is said to be relatively technically efficient if it has an efficiency value of 1 or 100%. If the efficiency value is below 100%, the firm is said to be relatively inefficient (Sari, 2016). DEA analysis is used to determine which Decision Making Unit (DMU) is efficient and which one is not. An efficient DMU is expected to be a benchmark for other DMUs that are still not efficient in order to improve their performance.

In Table 2, it is explained that the number of efficient firm's from year to year has increased. It is indicated by the decrease in firm's units that are still inefficient from 2013 to 2017. In 2013, the number of inefficient firms was 10 firm', but in 2017 the number of firms that have not been efficient is 1 firm. This shows that the efficiency of the firm's manufacturing sector is quite good, while the average score of the firm's efficiency reaches 100%, this proves that the firm's performance is also maximal.

Descriptive statistical results from the measurement of R&D intensity have the lowest value of 0, 00 and the highest value of 0, 21, while the average value of 0.013 and standard deviation is 0, 04. This shows that most of the R&D intensity values of manufacturing firms listed on the IDX is high and some have low R&D intensity values. A higher standard deviation firm's to the average value explains that there is a high variation between the minimum and maximum values during the observed period.

The results of descriptive statistics of intellectual capital variables was measured using the Value Added Capital (VACA) indicator which has an average of 0, 32, with a standard deviation of 0,42. Based on a minimum value of -2, 33 and a maximum value of 2, 22, this indicates that the total capital used in the firm's fixed and current assets is still very low. The VACA value is obtained from the total Value Added (VA) value divided by the Capital Employed (CE) value. Meanwhile, the value of CE is the difference between total assets and liabilities.

The second indicator is measured by using Value Added Human Capital (VAHU), which is a comparison between the value-added of a firm against employee expenses. The VAHU indicator has an average value of

3, 25 with a standard deviation of 2, 63. The minimum value of VAHU in manufacturing firm' is -2, 86, indicating that the firm' utilizes the performance of its employees in providing added value is still low, as well as the maximum VAHU value of 15, 24, meaning that the firm' has succeeded in maximizing the performance of its employees in carrying out their roles so as to produce production results which is able to provide valuable benefits to the firm'.

The third indicator consists of Structure Capital Value Added (STVA), with an average value of 0, 49 and a standard deviation of 0, 45. On the other hand, the maximum value of STVA is 1,35. It shows that the firm's is capable enough to take advantage of structure capital to provide added value to the firm'. STVA is the result of a comparison between structural capitals with structural value-added. Structural capital itself is a comparison of the results of value-added minus employee expenses. Furthermore, intellectual capital is the sum of VAHU, VACA, and STVA. Intellectual capital has an average value of 4, 06 and a standard deviation value of 3, 01. The final result of these three elements is also known as Value Added Intellectual Capital (VAICTM) and this value is used to measure the amount of intellectual capital.

Descriptive statistical results from managerial ability measured by using the DEA indicator show the minimum and maximum values of 0, 43 and 1,95, meaning that some of the firm's managerial ability efficiency is quite good. While the average value is 1,10 and the standard deviation is 0,17, this shows that there is a low variation between the minimum and maximum values during the observed period.

The results are presented in Table 1 that shows that the political connection variable has a minimum value of 0,00 which means that some manufacturing firm's are not connected by politics, while the maximum value of 3,66 means that some firms' have a high level of connection. An average value of 1,52 and a standard deviation of 1,35 indicate that there are low variations.

The last variable is Tobin's q. Tobin's q is the ratio used to measure a firm's performance. The higher Tobin's q ratio shows that the firm's has good operating performance and high value. The results of the table show that the minimum ratio is 0, 58 and the maximum value is 23,29. However, the average value of Tobin's q is 3,25 and the standard deviation is 4,09, meaning that there is a high variation between

the minimum and maximum values during the observed period.

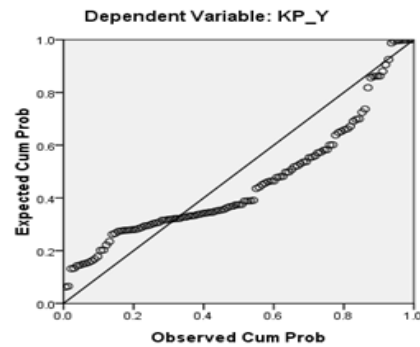
Based on Table 3, it proves that the standard deviation is lower than the average value. This can be interpreted that the value of one variable to another does not have a large difference. Therefore, the data from each variable can be used in this study.

Classical Assumption Test

Normality Test

The method that can be used is to use the normal probability plot. This study shows that the probability plot obtained from observational data is enough to follow a line around the diagonal or the distribution of data around the diagonal line.

Normal P-P Plot of Regression Standardized Residual



Multicollinearity Test

The regression model that is free from multicollinearity is a tolerance of more than 0,

Table 1
Research Sample Criteria

No	Sample Criteria	Firm	Period	Number
1	Manufacturing sector firm' listed on the Indonesia Stock Exchange 2013 -2017	131	5	655
2	Firm' that include research and development (R&D) in annual reports	30	5	119

Source: idx.co.id, processed.

Table 2
Firm' Efficiency Measurement Results from 2013-2017

	Year				
	2013	2014	2015	2016	2017
Minimum efficiency (%)	42,99%	90,14%	99,78%	98,77%	97,86%
Maximum efficiency (%)	140,55%	179,79%	195,21%	135,85%	136,67%
Average efficiency (%)	100,56%	111,01%	111,86%	111,06%	116,70%
Growth (%)		10,39%*	0,76%**	-0,72%***	5,09%****
Number of efficient firm' (units)	12	19	23	25	20
Number of inefficient firm' (units)	10	6	2	1	1

Source: The data is 2019

*, **, ***, **** Growth from 2013-2014, 2014-2015, 2015-2016, 2016-2017

Table 3
Descriptive Statistics of Variable Data Hierarchy Results

Variable	Min	Max	Average	Standar Dev.
R&D Intensity	0,00	0,20	0,01	0,04
Capital Employed	-2,33	2,22	0,32	0,42
Human Capital	-2,86	15,24	3,25	2,63
Structural Capital	-2,32	1,35	0,49	0,45
Intellectual Capital	-2,35	16,39	4,06	3,01
Managerial Ability	0,43	1,95	1,10	0,17
Political Connection	0,00	3,66	1,52	1,35
Firm Performance	0,58	23,29	3,25	4,09

Source: The data is 2019

1 and a VIF value that has a value of less than 10. Then, it can be seen from the data in Table 4, it indicates that the regression model does not occur in the correlation between independent variables. Thus, the data from each variable can be used in this study.

Table 4
Hierarchy Variable Data Multicolonity Test Results

No	Variable	Tolerance	VIF
1	R&D Intensity	0,883	1,133
2	Intellectual Capital	0,784	1,275
3	Managerial Ability	0,881	1,135

Source: Processed data

Hypothesis Test

Effect of R&D Intensity on firms Performance

From Table 5, it is known that the R&D intensity variable has a positive effect on the firm's performance as measured by Tobin's-q. This can be seen from $t_{\text{count}} > t_{\text{table}}$. In the table, it can be seen that the t_{count} for R&D intensity is 6,433 which is greater than the table of 1,653. This is supported by a significance value of 0,000 which is smaller than (α) of 5% or 0,05. These results explain that the hypothesis

Stating that R&D intensity has a positive effect on firms' performance can be proved.

The results of this study support the theory of RBV (Resources-Based View) which states that firms can firm to gain competitive advantage by managing their resources according to the firms' capabilities (Wernerfelt, 1984). This is because resources have an important role in helping firms to achieve higher firms' performance (Jagelavičius, 2013). With the influence of R&D intensity on the firms' performance in this study, it can be said that the firms can maximize the management

of intangible assets to generate firms' profits.

The results in this study support the research of Gleason & Klock (2006) and Black et al., (2006). The result showed that the higher R&D undertaken by the firms would have a strong impact on improving firms' performance. Research conducted by Lu, Tsai, & Yen (2010) in a developed country, Taiwan, illustrates that developed countries attach great importance to the research and development of a product being able to produce innovative products. Therefore, developing countries like Indonesia should be increasingly aware of the importance of conducting research and development because these activities are a way for the firms to be able to compete in the era of the ASEAN Economic Community (AEC).

The Effect of Intellectual Capital on Firms Performance

The next is as presented on Table 5. It provides information shows that the intellectual capital variable which is measured using VAICTM has a positive effect on firm's performance. This is evident from the value of $t_{\text{count}} > t_{\text{table}}$ is 3,496 > 1,653 and the significance value is below the α value of 0,05 which is 0,001. Thus, it can be said that hypothesis 2, namely intellectual capital, has a positive effect on firm's performance.

This finding shows that the market gives a higher value to a firm that has high intellectual capital. A firm that manages its intellectual resources to the maximum will be able to create greater value-added and competitive advantage. All these can lead to an increase in firms' performance.

The better the firms in managing the three components of intellectual capital shows the better the firms in managing assets. This shows that the higher intellectual ability. The

Table 5
Hierarchy Variable Data Regression Analysis Results

Variable	Model I		Model II		Model III	
	Koef Reg	t	Koef Reg	t	Koef Reg	t
R&D Intensity	0,49*	6,43	0,46*	6,19	-0,34*	-2,38
Intellectual Capital	0,28*	3,50	0,26*	3,39	0,06	0,56
Managerial Ability	-0,02	-0,24	-0,03	-0,44	-0,09	-0,89
Political Connection			0,23*	3,29	-0,40	-0,72
R&D Intensity x Political Connection					0,86**	5,38
Intellectual Capital x Political Connection					0,29	1,62
Managerial Ability x Political Connection					0,33	0,62

*, **: significance level at 1% dan 5%

Source: Processed data

cost can be efficiently managed. The influence of intellectual capital on firm's performance is by a resource-based theory which states that firms can utilize all of their strategic resources to create competitive advantage (Wernerfelt, 1984). The result of this study also supports a research conducted by Ulum (2007), Verduijn (2013), and Gigante (2013).

Effect of Managerial Ability on Firms Performance

As it is presented on Table 5, the managerial ability variable—which was measured by Data Envelopment Analysis (DEA)—do not affect firm's performance. It is due to the value of $t_{count} < t_{table}$ which can be seen from t_{count} of -0,243. It is smaller than t_{table} of 1,653. This is also supported by the significance value of 0,808 which is greater than the significance level (α) which is 5% or 0,05.

These findings explain that firm's performance is not determined by the level of managerial ability. This is because managers with high managerial skills are not yet able to move the firm's resources effectively and efficiently in the interests of achieving the goals set by the firms. Like the inability of managers to report goodwill, other stars that should be reported in annual reports are not reported or rarely reported. This can be due to the reporting of intangible assets that is still voluntary.

The findings explain that firm's performance is not determined by the level of managerial ability. This is because managers with high managerial skills are not yet able to move the firm's resources effectively and efficiently in the interests of achieving the goals set by the firms. Like the managers' inability to report goodwill and other intangibles that should be reported in annual reports, yet, it is not reported or rarely reported. This can be caused by the reporting of intangible assets that is still voluntary.

Political Connection Moderate the Effect of R&D Intensity on Firm's Performance

The moderating variable regression result shows that political connection can strengthen the positive influence of R&D intensity on firm's performance. This can be seen from the value of $t_{count} > t_{table}$ where the t_{count} is 5,380 and t_{table} is 1,653. While the significance value of 0,000, which means less than the level of significance (α) of 5% or 0,05

A political connection will provide a stronger resource base. The firms that have

political connection become stronger compare to those that do not have a political connection. This argument is supported by Faccio *et al.* (2006), they also found that the firms obtained good performance because they had a political connection. It is due to the fact that politics is one of the main determinants of a country's institutional environment. The encouragement of firms to have political connections has received special attention from economic observers due to the indication of preferential treatment from the government.

The firms can use their connections to attract investors to obtain additional funding in conducting research and development. By doing this, they can improve their performance. When more and more investors increase the capital owned by the firms, the firms can develop their business.

Political Connection Moderate the Effects of Intellectual Capital on Firms Performance

The next result of moderation is that political connection can strengthen the positive effect of intellectual capital on the firm's performance is not proven. It can be indicated by the data on Table 5 that the t_{count} is 1,62 smaller than the t_{table} value. This is also evident from the significance value where the value of α is 0,05 less than 0,109. Then it can be concluded that political connection cannot affect intellectual capital on firms' performance.

This finding shows that political connection cannot moderate intellectual capital on firm's performance. This empirical finding can be interpreted that the management of capital resources in the firms is not related to the political relationship between the firms and the government. Therefore, political factors cannot strengthen the relationship between intellectual capital and the firm's performance.

The result of this study is in line with that by Pulic (1999) that the construct of intellectual capital management is more likely to be influenced by employed capital, human capital, and structural capital. It does not explain the relationship between political relations between capital resource management and the firm's performance.

Political Connection Moderate the Effect of Managerial Ability on Firms Performance

The result of the regression test for the last moderating variable is that the political connection can not affect managerial ability on the firm's performance. This is evident from

the existing data that the value of t_{count} is 0,617 smaller than the value t_{table} of 1,653. This is also evident from the significance value where the α value is 0,05 less than 0,538.

Empirical evidence shows that political connection does not moderate the effect of managerial ability on firms' performance. This empirical evidence can be interpreted that political connection with the government cannot strengthen firm's performance; because this can be caused by the regulations that are produced or issued by the government are not profitable for the firms.

The influence of the political connection factor does not strengthen the manager's ability to manage the firms because companies need more connection with investors to obtain sources of funding used in research and development programs. Research and development programs are carried out because they are supported by investors to produce output that has more value. Therefore, it also affects the firm's performance.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The purpose of this study is to empirically prove the effect of intellectual capital, R&D intensity, and managerial ability on the firm's performance with political connection as a moderating variable. The firm's performance can be increased by the R&D intensity and intellectual capital. The existence of political connection can strengthen the relationship between R&D intensity on the firm's performance. The firm's performance is not related to managerial ability. Besides, a political connection can neither strengthen nor weaken the influence of intellectual capital on managerial performance and ability.

The result shows that the R&D intensity can improve the firm's performance. With research and development, the firms can produce innovative products. In addition, intellectual capital has a positive effect on the firm's performance. In this study, the researchers used Pulic model because it is still new. The Value Added Intellectual Coefficient (VAICTM) is used to measure the firm's intellectual capital. It was shaped up to provide information about the efficiency value of the firm's intangible assets while they are operating. Managerial ability does not affect the firm's performance. This is due to the condition where the managers do not pay attention to the intangible assets in the firms. Therefore,

it is proved that managerial ability cannot improve the firm's performance. The political connection in this research can strengthen R&D intensity on the firm's performance because the political connection can provide benefits for the firms. It can also attract investors to provide additional funds in conducting research and development. Conversely, the political connection does not neither strengthen nor weaken intellectual capital and managerial ability on firms' performance. This is because the presence or absence of a political connection is not a problem for the firms. The firm needs more connections with investors to obtain funding sources used in research and development programs.

Strengthening R&D intensity and intellectual capital can be done by building political connections with the executive and legislative branches both at the central and regional levels. The implication for investors is that they can choose to invest in the firms with good R&D intensity and intellectual capital. Besides that, they have to consider whether the firms have a political connection with the executive and legislative entities.

This study has several limitations, namely, firstly, it used the firms that did not disclose in full with their related intangible assets. Secondly, the sample of this research is that the manufacturing firms that rarely have information related to political connection. Thirdly, the measurement of political connection related to this research is too big in terms of the tenure of political connections. Therefore, it can be still less accurate for measuring the level of value in political connection.

This study recommends that further research add the subject with the group of the firms so that information related to the value of intangible assets and political connection data on the firms can be better. By doing so, it can develop this study in relation to the variable relations of intangible assets and political connection. In addition, further research is expected to establish a term of office with a certain period of information on political connection. By doing so, it can obtain a more accurate value of political connection.

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