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The Impact of Intellectual Capital on Company Value as Mediated by Financial Performance in Technology Companies in Indonesia, Malaysia, and Thailand

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Abstrak

Dalam beberapa tahun terakhir, teknologi telah menjadi industri yang tumbuh sangat pesat. Tren perkembangan industri teknologi memiliki valuasi yang mengalami pertumbuhan yang sangat tinggi. Dengan menggunakan teknologi, beberapa perusahaan berhasil meraih laba dan mencapai pertumbuhan yang signifikan. Penelitian ini bertujuan untuk menguji dan menganalisis pengaruh Relational Capital, Human Capital dan Structural Capital terhadap Nilai Perusahaan yang dimediasi oleh Kinerja Keuangan. Penelitian ini menggunakan metode kuantitatif yang bersifat kasual. Populasi yang diperoleh terdiri dari 42 perusahaan teknologi di Thailand, 61 perusahaan teknologi di Malaysia, dan 42 perusahaan teknologi di Indonesia. Pemilihan sampel menggunakan purposive sampling, yaitu semua perusahaan di sektor teknologi yang melaporkan laporan keuangan selama lima tahun dalam jangka waktu 3 tahun. Hasil penelitian menunjukkan bahwa di Malaysia, ROA tidak memediasi secara signifikan terhadap STVA dan MtBV, VACA dan MtBV, dan VAHU dan MtBV. Di Thailand, ROA tidak memediasi secara signifikan terhadap STVA dan MtBV, VACA dan MtBV, dan VAHU dan MtBV. Di Indonesia, ROA tidak memediasi secara signifikan terhadap STVA dan MtBV, VACA dan MtBV, dan VAHU dan MtBV.

Kata Kunci: Modal Intelektual; Indonesia; Malaysia; Kinerja Keuangan; Thailand.

Abstract

In recent years, technology has become an industry that is growing very rapidly. The development trend of the technology industry has valuations that are experiencing very high growth. Using technology, several companies have succeeded in achieving profits and achieving significant growth. This research aims to test and analyze the influence of Relational Capital, Human Capital and Structural Capital on Company Value which is mediated by Financial Performance. This research uses quantitative methods that are casual in nature. The population obtained consisted of 42 technology companies in Thailand, 61 technology companies in Malaysia, and 42 technology companies in Indonesia. The sample selection used purposive sampling, namely all companies in the technology sector that reported financial reports for five years within a 3 year period. The research results show that in Malaysia, ROA does not mediate significantly on STVA and MtBV, VACA and MtBV, and VAHU and MtBV. In Thailand, ROA does not mediate significantly on STVA and MtBV, VACA and MtBV, and VAHU and MtBV. In Indonesia, ROA does not mediate significantly on STVA and MtBV, VACA and MtBV, and VAHU and MtBV.

Keyword: Intellectual Capital; Indonesia; Malaysia; Financial Performance; Thailand.

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1. Introduction

In recent years, technology has become an industry that is growing very rapidly. The development trend of the technology industry has valuations that are experiencing very high growth. Using technology, several companies have succeeded in achieving profits and achieving significant growth. According to the Ministry of Communication and Information (Ministry of Communication and Information, n.d.) in facing changes towards the industrial era 4.0, transformation and increased integration between industrial production lines and computing systems have resulted in growth, especially now that it has been supported by the growth of the internet which is able to create opportunities and possibilities. new. The impact of this change is increasingly visible with the growth of large technology and digital companies, both on an international and domestic scale. This shows that advances in the fields of science, technology and innovation provide advantages for companies that can master them. At this time, Intellectual Capital is a very crucial resource for companies and can contribute to economic success and the formation of unique value in business competition. Intellectual Capital is a driver of value that is not physically visible in an organization, but brings benefits that can be enjoyed in the future. During intense competition in today's market, consumers have broad access to information, which plays a very important role in shaping consumer behavior. The business environment is very dynamic, so companies also need to change, move, and adapt quickly in running their business. Therefore, the sustainability of company activities is very dependent on the company's ability to adapt to changes that occur. Companies with good Intellectual Capital capabilities will quickly be able to adapt to changes that occur, making them able to follow the flow of change and remain competitive in a competitive market. According to Bellucci *et al* (2021), the concept of Intellectual Capital is experiencing growth as an important competitive resource for companies in encouraging sustainable innovation.

Conventional measurement approaches have proven to be inadequate in making decisions. Therefore, companies need to dig deeper to identify other factors that can add value as the main driver of profits in the future. In this context, according to Quintero-Quintero *et al.* (2021), Intellectual Capital becomes relevant as a tool in identifying and analyzing intangible aspects. By considering these factors, companies will be better prepared to face challenges and opportunities in the future. Research Gap in this research is a research gap from the results of previous studies concluding different findings, where there are findings that Intellectual Capital has a significant impact on company performance (Ali & Anwar, 2021; Bayraktaroglu *et al.*, 2019; Mohammad *et al.*, 2018; Sardo *et al.*, 2018). However, several other studies provided different results, finding no significant impact (Lu *et al.*, 2021; Mondal & Ghosh, 2020; Natsir & Bangun, 2021; Weqar *et al.*, 2021; Xu *et al.*, 2019). These differences in results show the complexity and variation in the relationship between Intellectual Capital, financial performance, and firm value. An empirical study was developed in this research to overcome the gap in previous research findings. This study investigates the impact of Intellectual Capital on company value through the mediating role of company financial performance. This research aims to provide insight among companies from developing economies in ASEAN, namely Indonesia, Malaysia, and Thailand. It is hoped that similarities in developing countries used in research will not result in inequality in research results. The use of Return on Assets (ROA) as a measure of financial performance in the context of the impact of Intellectual Capital on business performance is in line with the concept of efficiency and effectiveness in the use of assets, including intangible assets related to intellectual capital. Companies that have strong Intellectual Capital will use these assets optimally, which in the end can produce a higher ROA. This happens by increasing innovation, simplifying processes, and improving employee performance. The formulation of the problem in this research is How a company can measure its performance in intangible form, in this case Relational Capital (RC), Intellectual Capital (IC), and Human Capital (HC) will be able to determine and become a key factor in the company's future progress. The results of different studies regarding the relationship between Intellectual Capital and company value are the background for this research. The aim of this research is to test and analyze Relational Capital (RC), Intellectual Capital (IC), and Human Capital (HC) on Company Value which is mediated by financial performance. This research will test and analyze the direct and indirect effects.

2. Research Methodology

This research is descriptive quantitative research by presenting quantitative data in descriptive form. (Wijayanti *et al.*, 2022) Descriptive statistics are carried out using numerical and graphical procedures to summarize the data collected so that it can be easily understood. The research was conducted to examine the influence of Intellectual Capital on company value through the financial performance of companies listed on the stock exchange in 3 developing countries in ASEAN. The research uses the partial least squares path modeling method to explain the relationship between variable X and variable Y using quantitative data and explores the relationships behind the relationships which are tested through several hypotheses. Casual research aims to investigate the causal relationship between two or more variables. Winarsunu (2017) stated that there are two types of variables used, namely independent variables and dependent variables. In the context of this research, the population refers to companies that have public company status and are registered on the capital market exchange in their respective countries and are included in the technology company category. Based on available data, the total population obtained consists of 42 technology companies in Thailand, 61 technology companies in Malaysia, and 42 technology companies in Indonesia. Sample selection was carried out based on the purposive sampling method with the aim of obtaining a representative sample that complies with the specified criteria. In the context of this research, the sample consists of 30 companies from the total population. The data used can be obtained from information available on the relevant capital market exchange website and from the relevant company website. All companies in this sample operate in the technology sector and have reported their financials for the last five years except for the last three years if the company conducted an Initial Public Offering (IPO) within the last 2-3 years. The researcher's analysis will use the help of SmartPLS 3.0 software which is designed to be able to estimate structural equations on a variance basis. (Aybek & Karakaş, 2022; Joseph F *et al.*, 2021) The PLS-SEM method does not require assumption tests and can use a relatively smaller number of samples, namely 30 to 100.

3. Results and Discussion

3.1 Results

The research objects used in this research are companies registered as technology companies on the stock exchanges in their respective countries in 2020-2022. With the purposive sampling method, an appropriate sample was obtained for this research of 30 companies in each country and the dependent variable was measured by Return on Assets (ROA), while the independent variable was used VAIC_{tm} with the indicators that form it, namely VACA, VAHU, and STVA. Based on the results of the purposive sampling method carried out, the research sample was 90 companies, with 30 companies each from the country studied. Observation data obtained during three years of observation in each country was 78 companies. A sample of 78 companies will be tested to see whether there is an influence of Intellectual Capital on financial performance and company value in technology companies in Indonesia, Malaysia, and Thailand. Descriptive statistics is a way to provide an overview or explanation of all research variables. Descriptive statistical measurements used in this research include average value (mean), maximum value, minimum value, and standard deviation. The results of descriptive statistics for each variable can be seen in the following table 2. Table 2 shows that the average MtBV value is 5.168. The lowest MtBV value is 0.93, which belongs to Willowglen MSC Bhd (WILLOW) in 2020. The highest MtBV value is 14.06, which belongs to D & O Green Technologies Berhad (D&O) in 2022. The MtBV standard deviation is 3.693. The average ROA value is 11.694. The lowest ROA value is -3.45, which belongs to Genetec Technology Berhad (GENETEC) in 2022. The highest ROA value is 31.67, which belongs to Elsoft Research Berhad (ELSOFT) in 2020. The ROA standard deviation is 6.548. Table 3 shows that the average MtBV value is 2.905. The lowest MtBV value is 0.49, which belongs to SVOA Public Company Limited (SVOA) in 2022. The highest MtBV value is 13.4, which belongs to Advanced Information Technology Public Co., LTD.

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(AIT) in 2021. The standard deviation of MtBV is 2.582. The average ROA value is 5.192. The lowest ROA value is -5.1, which belongs to Samart Corporation Public Company Limited (SAMART) in 2020. The highest ROA value is 21.63, which belongs to Intouch Holdings PCL (INTUCH) in 2022. The ROA standard deviation is 5.433. Table 4 shows that the average MtBV value is 5.361. The lowest MtBV value is 0.25, which belongs to Hensel Davest Indonesia Tbk (HDIT) in 2020. The highest MtBV value is 46.67, which belongs to Telefast Indonesia Tbk (TFAS) in 2021. The MtBV standard deviation is 8.967. The average value of ROA is 0.045. The lowest ROA value is -77.12, which belongs to Tourindo Guide Indonesia Tbk (PGJO) in 2022. The highest ROA value is 71.69, which belongs to Distribution Voucher Nusantara Tbk (DIVA) in 2021. The ROA standard deviation is 19.625. Based on testing the validity of the loading factors in figures 1 to 3, it is known that all weight values are greater than 0.7, which means they have met the validity requirements because the data used is very good and trustworthy. Based on the multicollinearity test, it shows that the resulting outer VIF value is not greater than 10 so that there is no multicollinearity between the independent variables in the study. Based on the convergent validity test, the AVE value is above 0.5, therefore there are no problems with convergent validity in the model tested, in this case it can be said to have good discriminant validity. The inner VIF value is less than 5, so the level of multicollinearity between variables is low so that hypothesis testing can be continued. Based of table 5, the result is:

- 1) The hypothesis of the influence of VACA on MtBV is accepted with a path coefficient of 0.12, which is positive. It is known that the P-Values = $0.187 > 0.05$, so it can be concluded that VACA does not have a significant effect on MtBV.
- 2) The hypothesis of the influence of VACA on ROA is rejected with a path coefficient of -0.069, which is negative and P-Values = $0.662 > 0.05$.
- 3) The hypothesis of the influence of VAHU on MtBV is rejected with a path coefficient of -0.472, which is negative and P-Values = $0 < 0.05$
- 4) The hypothesis of the influence of VAHU on ROA is accepted with a path coefficient of 0.385, which is positive. It is known that the P-Values = $0.045 < 0.05$, so it can be concluded that VAHU has a significant effect on ROA.
- 5) The hypothesis of the influence of STVA on MtBV is accepted with a path coefficient of 0.338, which is positive. It is known that the P-Values = $0 < 0.05$, so it can be concluded that STVA has a significant effect on MtBV.
- 6) The hypothesis of the influence of STVA on ROA is rejected with a path coefficient of -0.225, which is negative and P-Values = $0.084 > 0.05$.

Based of table 6, the result is:

- 1) The hypothesis of the influence of VACA on MtBV is accepted with a path coefficient of 0.111, which is positive. It is known that the P-Values = $0.245 > 0.05$, so it can be concluded that VACA has no significant effect on MtBV.
- 2) The hypothesis of the influence of VACA on ROA is accepted with a path coefficient of 0.287, which is positive and the P-Values = $0.002 < 0.05$, so it is concluded that VACA has a significant effect on MtBV.
- 3) The hypothesis of the influence of VAHU on MtBV is rejected with a path coefficient of -0.037, which is negative and P-Values = $0.877 > 0.05$
- 4) The hypothesis of the influence of VAHU on ROA is accepted with a path coefficient of 0.545, which is positive. It is known that the P-Values = $0.00 < 0.05$, so it can be concluded that VAHU has a significant effect on ROA.
- 5) The hypothesis of the influence of STVA on MtBV is accepted with a path coefficient of 0.286, which is positive. It is known that the P-Values = $0.059 < 0.05$, so it can be concluded that STVA has no significant effect on MtBV.
- 6) The hypothesis of the influence of STVA on ROA is rejected with a path coefficient of -0.052, which is positive and P-Values = $0.694 > 0.05$.

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Based of table 7, the result is:

- 1) The hypothesis of the influence of VACA on MtBV is accepted with a path coefficient of 0.096, which is positive. It is known that the P-Values = 0.208 > 0.05, so it can be concluded that VACA has no significant effect on MtBV.
- 2) The hypothesis of the influence of VACA on ROA is rejected with a path coefficient of -0.308, which is negative and P-Values = 0.002 < 0.05
- 3) The hypothesis of the influence of VAHU on MtBV is rejected with a path coefficient of -0.387, which is negative and P-Values = 0.008 < 0.05
- 4) The hypothesis of the influence of VAHU on ROA is accepted with a path coefficient of 0.252, which is positive. It is known that the P-Values = 0.248 > 0.05, so it can be concluded that VAHU has no significant effect on ROA.
- 5) The hypothesis of the influence of STVA on MtBV is accepted with a path coefficient of 0.351, which is positive. It is known that the P-Values = 0.038 < 0.05, so it can be concluded that STVA has a significant effect on MtBV.
- 6) The hypothesis of the influence of STVA on ROA is rejected with the path coefficient of --0.237, which is negative and the P-Values = 0.317 > 0.05.

The test results (table 8) on smartpls 3 where the STVA mediation test on MtBV is -0.101, which is negative, which means STVA has no positive effect on MtBV. P-Values = 0.506 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV. The mediation test or indirect effect of VACA on MtBV through the ROA variable is negative, which means VACA has no positive effect on MtBV. P-Values = 0.685 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV. The mediation test or indirect influence of VAHU on MtBV through the ROA variable is positive, which means VAHU has a positive effect on MtBV. P-Values = 0.141 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV. The test results (table 9) on Smarts PLS 3 where the STVA mediation test on MtBV is 0.018, which is positive, which means STVA has a positive effect on MtBV. P-Values = 0.712 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV. The mediation test or indirect effect of VACA on MtBV through the ROA variable is positive, which means VACA has a positive effect on MtBV. P-Values = 0.073 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV. The mediation test or indirect influence of VAHU on MtBV through the ROA variable is positive, which means VAHU has a positive effect on MtBV. P-Values = 0.106 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV. The test results (table 10) on smartpls 3 where the STVA mediation test on MtBV is -0.037, which is negative, which means STVA has a negative effect on MtBV. P-Values = 0.53 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV. The mediation test or indirect effect of VACA on MtBV through the ROA variable is negative, which means VACA has a negative effect on MtBV. P-Values = 0.283 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV. The mediation test or indirect influence of VAHU on MtBV through the ROA variable is positive, which means VAHU has a positive effect on MtBV. P-Values = 0.469 > 0.05, so it is concluded that ROA does not mediate significantly on MtBV.

Table 1. Definition of Operational Variables

Variable	Definition	Measurement	Reference
<i>Human Capital (X1)</i>	<i>Value Added Human Capital (VAHU)</i> is an indicator used to show how much added value a company can achieve from the costs incurred for each worker or employee.	VAHU = VA / HC VA: company value added HC: Human Capital (employee expenses consist of salary and benefits)	(Pulic, 2008)

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<i>Structural Capital</i> (X2)	<i>Structural Capital Value Added</i> (STVA) is used as an indication of the amount of SC needed to produce 1 rupiah from VA	$STVA = SC / VA$ (Pulic, 2008) SC : company structural capital = VA – HC VA: company value added
<i>Relational Capital</i> (X3)	<i>Relational Capital</i> atau <i>Value Added Capital</i> (VACA) is a ratio used as an indication of the amount of contribution generated by each unit of each physical capital to value added	$VACA = VA / CE$ (Pulic, 2008) VA = Total income – Costs (except employee costs) CA (Capital Employed)= Available funds (net profit, equity)
The value of the company	<i>Return of Asset</i> (ROA) is a ratio that measures company value in calculating profitability by showing the company's ability to generate company profits.	$ROA = \text{Profit after tax} / \text{Total assets}$ (Suripto & Gunawan, 2019)
Financial Performance (Y1)	The MBV ratio is used to find out how much the share price in the market is compared to the company value of the shares. MBV is used as a benchmark in determining how big the company's investment opportunities are to grow.	$MBV = \text{Share price} / \text{Company value per share}$ (Suripto & Gunawan, 2019)

Table 2. Descriptive Statistics (Malaysia)

	Mean	Median	Min	Max	Standard Deviation
MTBV	5.168	4.01	0.93	14.06	3.693
ROA	11.694	10.71	-3.45	31.67	6.548
VACA	0.426	0.32	0.08	4.45	0.582
VAHU	3.516	2.48	1.09	24.13	3.697
STVA	0.581	0.6	0.08	0.96	0.2

Table 3. Descriptive Statistics (Thailand)

	Mean	Median	Min	Max	Standard Deviation
MtBV	2.905	1.8	0.49	13.4	2.582
ROA	5.192	3.86	-5.1	21.63	5.433
VACA	0.345	0.28	0.09	0.9	0.202
VAHU	6.044	2.24	1.23	122.06	16.58
STVA	0.636	0.64	0.19	1.17	0.231

Table 4. Descriptive Statistics (Indonesia)

	Mean	Median	Min	Max	Standard Deviation
MtBV	5.361	2.18	0.25	46.67	8.967
ROA	0.045	1.4	-77.12	71.69	19.625
VACA	0.158	0.11	0	0.92	0.177
VAHU	3.196	2.41	1.05	8.35	1.984
STVA	0.552	0.58	0.05	0.88	0.255

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Table 5. Hypothesis Testing (Malaysia)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
VACA -> MtBV	0.12	0.151	0.09	1.333	0.183
VACA -> ROA	-0.069	-0.017	0.159	0.437	0.662
VAHU -> MtBV	-0.472	-0.515	0.131	3.594	0
VAHU -> ROA	0.385	0.434	0.193	2.001	0.045
STVA -> MtBV	0.338	0.366	0.195	1.73	0.084
STVA -> ROA	-0.225	-0.274	0.296	0.76	0.447

Table 6. Hypothesis Testing (Thailand)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
VACA -> MtBV	0.111	0.138	0.095	1.162	0.245
VACA -> ROA	0.287	0.296	0.095	3.041	0.002
VAHU -> MtBV	-0.037	0.071	0.239	0.155	0.877
VAHU -> ROA	0.545	0.571	0.118	4.602	0.000
STVA -> MtBV	0.286	0.257	0.152	1.885	0.059
STVA -> ROA	0.052	0.007	0.133	0.393	0.694

Table 7. Hypothesis Testing (Indonesia)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
VACA -> MtBV	0.096	0.114	0.076	1.259	0.208
VACA -> ROA	-0.308	-0.319	0.112	2.747	0.006
VAHU -> MtBV	-0.387	-0.400	0.145	2.667	0.008
VAHU -> ROA	0.252	0.242	0.218	1.156	0.248
STVA -> MtBV	0.351	0.386	0.169	2.077	0.038
STVA -> ROA	-0.237	-0.225	0.237	1.001	0.317

Table 8. Mediation Testing (Malaysia)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
STVA -> ROA -> MtBV	-0.101	-0.131	0.152	0.665	0.506
VACA -> ROA -> MtBV	-0.031	-0.009	0.077	0.405	0.685
VAHU -> ROA -> MtBV	0.173	0.206	0.118	1.473	0.141

Table 9. Mediation Testing (Thailand)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
STVA -> ROA -> MtBV	0.018	0.011	0.047	0.370	0.712
VACA -> ROA -> MtBV	0.097	0.082	0.054	1.795	0.073
VAHU -> ROA -> MtBV	0.183	0.174	0.113	1.618	0.106

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Table 10. Mediation Testing (Indonesia)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
STVA -> ROA -> MtBV	-0.037	-0.048	0.059	0.629	0.530
VACA -> ROA -> MtBV	-0.048	-0.058	0.045	1.074	0.283
VAHU -> ROA -> MtBV	0.039	0.051	0.054	0.724	0.469

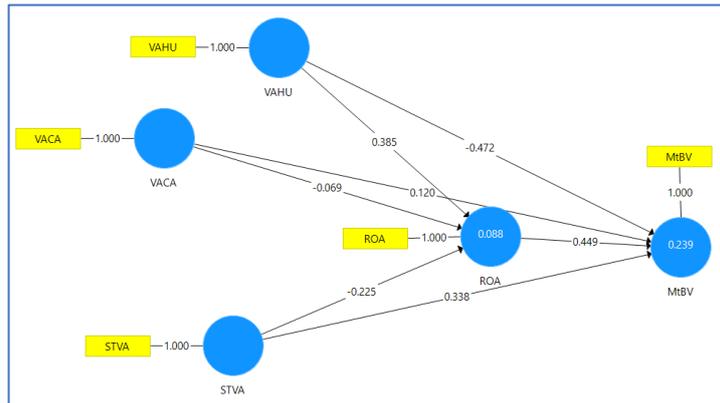


Figure 1. Validity Testing based on Loading Factors (Malaysia)

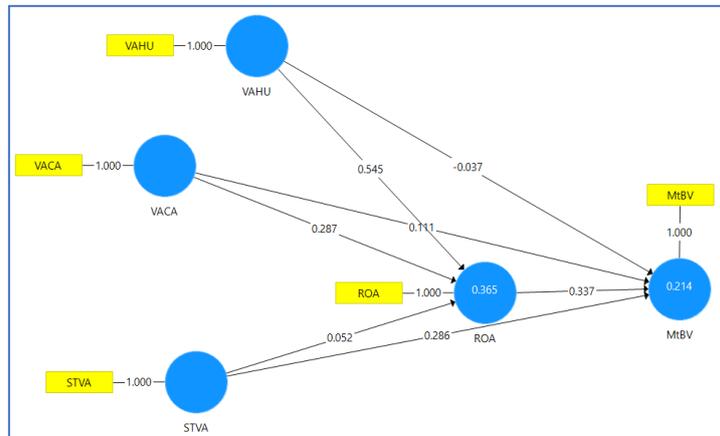


Figure 2. Validity Testing based on Loading Factors (Thailand)

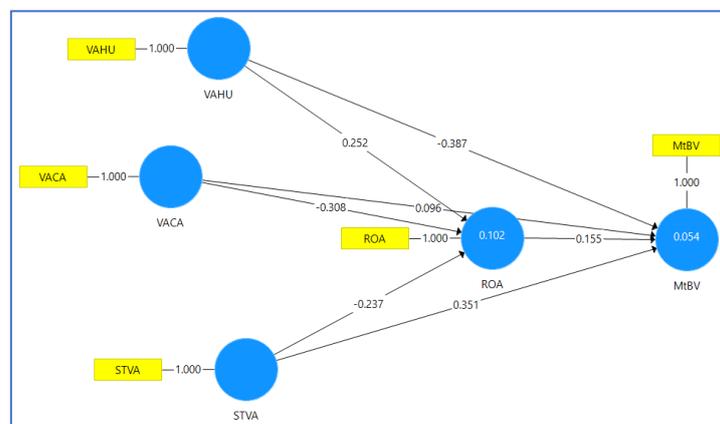


Figure 3. Validity Testing based on Loading Factors (Indonesia)

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3.2 Discussion

The rapid growth of the technology industry has significantly impacted corporate valuations, with technology firms experiencing substantial increases in value. This trend reflects the increasing importance of intellectual capital (IC) in driving competitive advantage and fostering business growth. Intellectual capital, comprising human, structural, and relational capital, plays a crucial role in shaping a company's long-term success. According to Bellucci *et al.* (2021), intellectual capital serves as a critical resource for companies, especially in competitive industries like technology, where intangible assets are essential for innovation and sustainable development. This study finds that while structural capital (STVA) significantly influences firm value (MtBV) in all three countries Indonesia, Malaysia, and Thailand relational capital (VACA) and human capital (VAHU) exhibit mixed results across the regions. In particular, VACA did not show significant effects on company value in any of the countries studied, which could suggest that in technology companies, operational efficiency and innovation may outweigh the impact of external relationships in determining corporate value. Furthermore, the results indicated that financial performance, as measured by Return on Assets (ROA), does not significantly mediate the relationship between intellectual capital and firm value in the technology sector of these countries. Despite the importance of ROA as a traditional financial performance indicator, it appears that other factors, such as technological innovation and the efficient use of intellectual capital, have a more substantial influence on firm value. This finding aligns with the work of Quintero-Quintero *et al.* (2021), who argue that while financial metrics like ROA are important, they do not fully capture the impact of intellectual capital on a company's performance. The complexity of the relationship between intellectual capital and firm performance, as suggested by several studies (Ali & Anwar, 2021; Bayraktaroglu *et al.*, 2019), points to the multifaceted nature of how intangible assets contribute to a company's competitive advantage and value creation. Moreover, the study found significant differences in the impact of intellectual capital across the three countries. While Malaysia and Thailand showed some significant effects of structural capital on firm value, Indonesia displayed a more complex dynamic, where the results were less consistent. These variations can be attributed to differences in the level of technological adoption, market maturity, and regulatory frameworks in each country. As noted by Xu *et al.* (2019), emerging markets often experience divergent outcomes due to contextual factors, which may influence how companies manage and leverage intellectual capital. This underscores the need for further research to explore how national and industry-specific factors shape the way intellectual capital affects business performance.

From a practical perspective, these findings suggest that technology firms should prioritize the management of structural capital and innovation capabilities to enhance their market value. While relational capital is important, firms in the technology sector may benefit more from focusing on optimizing their internal processes and innovation systems rather than relying heavily on external relationships. Additionally, the limited mediating role of financial performance in the intellectual capital-value relationship suggests that technology companies should adopt more comprehensive strategies for measuring the impact of intangible assets, beyond traditional financial indicators like ROA. This may include developing metrics that capture the efficiency of intellectual capital in driving innovation and operational performance, as suggested by Suripto & Gunawan (2019). However, this study has limitations, such as its reliance on secondary data from publicly listed firms, which may not represent the broader technology sector, particularly smaller or non-listed companies. Future research could expand the sample size to include privately held firms or conduct qualitative studies to gain deeper insights into how managers perceive and manage intellectual capital in their organizations. Additionally, incorporating other variables, such as organizational culture or innovation strategy, could provide a more nuanced understanding of how intellectual capital contributes to business success, particularly in emerging markets like Indonesia, Malaysia, and Thailand.

4. Conclusion

The very rapid development of technology and supported by the massive use of technology-based products and services has become one of the drivers of economic growth in various countries. A number of companies in the technology sector have grown into companies with very high corporate value and support economic growth in a country. Therefore, this research conducted comparative research on 3 ASEAN countries: Thailand, Malaysia and Indonesia and measured how much influence Intellectual Capital resources have on a company on ROA growth and company value.

5. References

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