

## **ESG AND FINANCIAL PERFORMANCE: THE MODERATING ROLE OF INTELLECTUAL CAPITAL**

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### **Abstract**

Public awareness of social and environmental challenges has raised attention to ESG issues around the world. This research seeks to empirically investigate the influence of ESG on a company's financial performance, taking into account how intellectual capital and its elements human capital, structural capital, and relational capital moderate this relationship. ESG is assessed using the ESG score, financial performance is evaluated through ROA and Tobin's Q, and intellectual capital is measured by VAIC. The research was conducted on 424 samples of companies in ASEAN-5 countries (Indonesia, Malaysia, Singapore, Thailand, Philippines) obtained through purposive sampling technique with the research period 2019-2022. The findings demonstrate that ESG exhibits a positive relationship with financial performance as indicated by ROA. Intellectual capital strengthens the association between ESG and corporate financial outcomes for both ROA and Tobin's Q measures. Specifically, structural capital bolsters the connection between ESG and financial performance when evaluated through the Tobin's Q lens, whereas relational capital enhances the relationship on the ROA front. In contrast, human capital weakens the link between ESG and corporate financial performance.

**Keywords:** ESG; Financial Performance, ROA, Tobins'Q, Intellectual Capital, Human Capital, Structural Capital, Relational Capital

### **Abstrak**

*Kesadaran masyarakat terhadap tantangan sosial dan lingkungan telah memunculkan perhatian terhadap isu-isu ESG di seluruh dunia. Penelitian ini berfokus dalam menguji secara empiris pengaruh ESG terhadap kinerja keuangan perusahaan dengan peran moderasi modal intelektual serta komponennya modal manusia, modal struktural, dan modal relasional. Pengukuran ESG diukur dengan skor ESG, kinerja keuangan diukur dengan ROA dan Tobins'Q, dan modal intelektual diukur dengan VAIC. Penelitian dilakukan pada 424 sampel perusahaan pada negara ASEAN-5 (Indonesia, Malaysia, Singapore, Thailand, Filipina) yang diperoleh melalui teknik purposive sampling dengan periode penelitian 2019-2022. Hasil penelitian membuktikan ESG berhubungan positif terhadap kinerja keuangan pada proksi ROA. Modal intelektual memperkuat hubungan ESG dan kinerja keuangan perusahaan pada proksi ROA dan Tobins'Q. Modal struktural memperkuat hubungan ESG dan kinerja keuangan perusahaan pada proksi Tobins'Q. Modal relasional memperkuat hubungan ESG dan kinerja keuangan perusahaan pada proksi ROA. Sementara itu, modal manusia memperlemah hubungan ESG terhadap kinerja keuangan perusahaan.*

**Kata Kunci:** ESG, Kinerja Keuangan, ROA, Tobins'Q, Modal Intelektual, Modal Manusia, Modal Struktural, Modal Relasional



## INTRODUCTION

The dynamic and highly competitive marketplace places companies under immense pressure, challenging them not only to succeed but also to preserve their success in the future. Companies are expected to not only focus on short-term financial aspects, but also pay attention to economic, environmental, and social sustainability (Haffar & Searcy, 2017). Developing strategies to achieve good performance while transforming the company into an environmentally and socially responsible organization is a necessity, no longer an option, to lead the future market (Busse, 2016). In an effort to remain relevant in a changing market, companies are realizing that focusing on business economics alone is no longer enough (Dixon-Fowler et al., 2013). Crafting a robust business strategy is becoming more dependent on how well organizations align themselves with sustainable development, striking a balance among financial, environmental, and social considerations (Shank & Shockey, 2016).

In the last decade, the performance of ESG has attracted significant interest from investors, corporate executives, and various stakeholders as a vital avenue for increasing corporate value (Malik, 2015). When ESG performance is integrated into a company's management approach, it can lead to an enhancement of firm value (Rezaee, 2016). The information related to ESG is beneficial to both investors and society at large (Shiller, 2013), as financial markets are instrumental in fostering diverse social initiatives. Van Duuren et al. (2016) highlight that ESG investing aligns with fundamental investment strategies, with numerous investors acquiring additional shares based on ESG metrics. Research by Slager et al. (2012) indicates that several companies have started assessing their ESG ratings and communicating the outcomes to pertinent stakeholders. According to Eccles et al. (2014), firms share ESG data not only with shareholders but also with a wider audience of stakeholders, as organizations with strong sustainability practices often prioritize long-term objectives and have a higher likelihood of attracting investors focused on long-term returns.

ASEAN refers to a region consisting of countries under development with significant economic growth rates. ASEAN is ranked as the seventh largest economy in the world. However, despite its great potential, businesses in ASEAN are also faced with potential risks and disruptions. Issues such as pollution, water scarcity, labor, and climate change are particular threats to ASEAN countries located along the equator with long coastlines. Therefore, companies and investors need to be aware of these potential risks (Malik, 2015).

Following the financial crisis and the UN Global Compact recommendations, financial markets have undergone significant changes. This has led to pressure on governments to expand environmental and social practices in the business world. As a result, there has been a major shift in the way companies view their credibility, their dual responsibility to shareholders and related parties, and their support for the integration of Environmental, Social and Governance (ESG) performance. ASEAN-5 member countries have various policies related to ESG development and implementation. ESG-focused companies in ASEAN have an average net profit margin about 2% higher than those that do not. ASEAN's efforts in improving ESG performance are considered an important step towards achieving financial

sustainability that reduces corporate risk (Rezaee, 2016).

Intellectual capital (IC) has become an essential asset for businesses seeking to thrive in a rapidly changing landscape, intellectual capital accounts for 50-90 percent of the value generated by companies in today's economy, surpassing the impact of production and sales. This concept is crucial to the production process and frequently acts as a significant driver of competitive edge. Alongside physical and financial capital, intellectual capital is a critical component of an organization's resources. Especially in the current economic era, companies around the world have realized that intellectual capital contributes to achieving superior performance. Therefore, intellectual capital management is recognized as a very important resource in implementing ESG in the modern era and achieving competitive advantage. However, intellectual capital management is not always uniform across different economic contexts (Alipour, 2012).

This research holds promise as a basis for future investigations by providing a framework for measuring and analyzing Environmental, Social, and Governance (ESG) factors in relation to financial performance. Past studies have revealed discrepancies in findings concerning the influence of ESG on financial results. Recent advancements in evaluating financial performance incorporate metrics such as Return on Assets (ROA) and Tobin's Q. This study employs both ROA and Tobin's Q as proxies for financial performance, filling the gap in research regarding the impact of ESG on financial outcomes when moderated by intellectual capital through these two measures. ROA reflects how effectively a company converts its assets into profits, whereas Tobin's Q assesses the market value of the company in relation to the book value of its assets. Collectively, these proxies provide essential insights into a company's asset management and its perceived market worth.

This study introduces a novel perspective by exploring the function of Intellectual Capital (IC) as a moderating factor. Up to this point, the influence of intellectual capital on the connection between ESG and financial performance has not been sufficiently addressed in the existing literature concerning either ESG or intellectual capital (Kim & Mauborgne, 2009). Therefore, the importance of intellectual capital should not be disregarded in evaluations of companies. The inquiry into how intellectual capital moderates the interplay between ESG and financial performance is essential and merits further investigation, especially in terms of whether it affects the nature or intensity of this connection (Kim & Mauborgne, 2009).

The originality of this study is evident in its creation of diverse proxies for evaluating the effectiveness of intellectual capital, particularly highlighting the Value-added Intellectual Coefficient (VAIC) and segmenting intellectual capital into three distinct components: human capital, structural capital, and relational capital. The VAIC model aligns with previous scholarly research and is utilized by managers, shareholders, and other stakeholders to gauge and assess value creation. Developed by Pulic (2000) this model serves as a quantitative and standardized metric based on publicly accessible information, rendering it both objective and easy to use (Abdulsalam et al., 2011). A higher VAIC ratio signifies increased value added by the company's intellectual capital. Sveiby (1997) introduced a classification framework for intellectual capital that encompasses three categories: Human Capital (HC), Structural Capital (SC), and Relational Capital (RC).

The results revealed a novel approach to measuring intellectual capital by incorporating three components: Human Capital, Structural Capital, and Relational Capital. Earlier research primarily utilized a singular VAIC measurement model commonly found in developed nations. Considering all these factors, this study aims to explore in depth the function of intellectual capital as a moderating factor in the link between ESG and financial performance. To fully comprehend intellectual capital, a comprehensive approach is essential; concentrating exclusively on one dimension, such as VAIC, may not capture the entirety of a company's intellectual assets. By integrating human capital, structural capital, and relational capital, this research seeks to provide a more nuanced understanding of a company's intellectual worth.

## **LITERATURE REVIEW**

Friedman (1970) Stakeholder Theory posits that organizations hold obligations not solely to their shareholders but also to a diverse array of interested parties. Research on ESG broadens its focus by evaluating a company's influence on the environment, societal well-being, and governance standards (Chariri & Ghazali, 2007). By grasping the requirements and aspirations of stakeholders, a company can weave sustainable practices into its strategic framework, ultimately impacting its financial outcomes. Clarkson et al. (1995) state that engaging in ESG activities can be seen as a means to demonstrate commitment to the needs and concerns of stakeholders. To align corporate objectives with those of stakeholders, companies can lower environmental emissions and reduce environmental costs (environmental contributions) (Clarkson, 1995). Stakeholder Theory provides a solid foundation for comprehending how ESG practices can help organizations achieve enhanced financial performance (Dimitropoulos et al., 2020).

Nekhili et al. (2017) demonstrate that companies adopting a more sustainable and long-term approach that aligns with stakeholder goals will reap various benefits, including enhanced corporate financial performance. Engaging in ESG activities can be viewed as a means of expressing commitment to the needs and concerns of stakeholders. To harmonize the company's objectives with those of stakeholders, the company can lower environmental emissions and minimize environmental costs (environmental contribution) (Li et al., 2019). Xie et al. (2022) also assert that ESG positively influences corporate financial performance. They highlight that ESG not only contributes to higher costs, but also increases corporate transparency, attracts additional investors, and potentially improves long-term financial performance. Aggarwal & Kalia, (2022) point out that awareness about environmental, social, and corporate governance issues is increasing among various stakeholders, including consumers, investors, and civil society in developed countries. The growing demand for sustainable products and services encourages companies to adopt better ESG practices, which in turn can improve their reputation and financial performance.

### **H1: ESG is significantly positive on financial performance**

The Resource-Based View Theory posits that intellectual capital is an essential company resource that encompasses intangible assets, which can enhance

ESG practices and subsequently affect the company's financial performance. Resource Based View Theory proves that companies have assets that can create competitive advantages and improve good long-term performance. Intellectual capital is a valuable asset for companies that have advantages (Khurshid et al., 2016). Optimal management and utilization of intellectual capital can achieve competitive advantage so that the company has added value which is useful for helping maintain the sustainability of the company's ESG practices while improving company performance.

Khurshid et al. (2016) who explained that companies with strong intellectual capital tend to be better able to manage risks related to ESG more effectively. They have the ability to respond to regulatory changes, market demands and environmental threats more quickly and flexibly. Thus, intellectual capital can help mitigate the negative impact of ESG factors on financial performance by assisting companies in anticipating, preventing, or responding to related risks.

## **H2: Intellectual capital moderates the relationship between ESG and financial performance**

Human capital, a crucial component of intellectual capital, plays a significant role in advancing Environmental, Social, and Governance (ESG) efforts, ultimately leading to improved financial performance for a company (Erik Sveiby, 1997). Integrating human capital with a focus on ESG enhances competitiveness, innovation, and efficiency, leading to better corporate financial performance through cost reductions, improved reputation, enhanced access to capital, and more effective risk management. Empirical evidence indicates that companies dedicated to ESG and effectively developing their human capital tend to achieve superior long-term financial performance (Stähle et al., 2011). The Resource-Based View Theory posits that a firm's internal assets, such as human capital, are essential for achieving lasting competitive advantages. The knowledge, skills, and experience of employees within human capital significantly influence how ESG factors impact a company's financial performance. Employees trained in green technology and sustainability management can develop innovative solutions that reduce operational costs and environmental impact.

Jain et al. (2017) which emphasizes employees and customers are considered crucial stakeholders for any organization. Many companies recognize that the contributions of employees significantly influence the organization's success or failure (Clarkson, 1995). The dedication, accountability, and innovation of employees have proven to be essential in strengthening the link between ESG and financial performance, leading to higher sales and profit margins, even in difficult economic circumstances.

## **H2a: Human capital moderates the relationship between ESG and financial performance**

Structural capital, which includes infrastructure, processes, information systems and organizational culture, provides a framework that enables the effective implementation and management of ESG practices. With sophisticated information systems, companies can monitor and manage energy consumption and carbon

emissions more efficiently, which contributes to environmental initiatives and reduces operational costs (Edvinsson & Malone, 1997).

Youndt et al. (2004) show that structural capital increases operational efficiency and innovation, which in turn strengthens environmental sustainability initiatives through better resource management and cost reduction. Knowledge management systems and information technology help companies track and report environmental and social performance, facilitate regulatory compliance, and promote transparency and accountability. Thus, structural capital strengthens the integration and implementation of ESG practices, improves the company's reputation and attracts investors who care about sustainability. This not only increases operational efficiency and reduces risks, but also encourages innovation and growth, which overall has a positive impact on a company's financial performance (Edvinsson & Malone, 1997).

### **H<sub>2b</sub>: Structural capital moderates the relationship between ESG and financial performance**

Nahapiet and Ghoshal (1998) suggest that close collaboration with suppliers can also help companies ensure a sustainable supply chain, by prioritizing suppliers that comply with sustainability standards. Relational capital refers to the value contained in the relationships built by a company with various parties outside the organization, such as customers, suppliers, business partners, local communities, and even competitors. A solid business partner can help companies collaborate on sustainability initiatives or invest in green technology. Additionally, positive relationships with local communities can generate important social support, including gaining a social license to operate, which in turn can help improve a company's reputation and influence consumer preferences.

RBV theory explains that relational capital can strengthen a company's ability to implement and utilize ESG practices effectively. Research shows that strong relationships with customers enable companies to understand and respond to market demands for sustainable products and services, which in turn increases customer loyalty and satisfaction (Li et al., 2019). Additionally, strategic partnerships with suppliers committed to sustainability can drive operational efficiency and reduce supply chain risks (Dyer & Singh, 1998).

### **H<sub>2c</sub>: Relational capital moderates the relationship between ESG and financial performance**

## **RESEARCH METHODOLOGY**

### **Research Design**

This study employs a quantitative methodology to investigate the empirical effects of Environmental, Social, and Governance (ESG) factors on a company's financial performance, incorporating intellectual capital along with its components: human capital, structural capital, and relational capital serving as moderating variables. ESG is assessed using ESG scores from Thomson Refinitiv Eikon, while financial performance is evaluated through ROA and Tobin's Q, and intellectual

capital is measured using VAIC. The analysis was conducted on a sample of companies from the ASEAN-5 countries (Indonesia, Malaysia, Singapore, Thailand, and the Philippines), selected using a purposive sampling technique for the research period spanning 2019 to 2022.

### Population and Sample

The subjects of this research encompassed various companies from the ASEAN-5 countries that were registered with Refinitiv Eikon between 2019 and 2022. The sampling was conducted using a purposive sampling technique according to the criteria outlined below:

**Tabel 1. Sampling Criteria**

Criteria	Total
Companies originating from ASEAN-5 countries (Indonesia, Malaysia, Singapore, Thailand and the Philippines).	3942
Companies that have data covering at least the last 4 years 2019-2022 to capture relevant trends and analyze financial performance as well as changes in ESG practices and intellectual capital.	(2820)
Companies that have ESG scores or reports available.	(612)
Companies that have the necessary financial data available such as ROA, revenue, net profit and others.	(109)
Companies that have supporting data regarding variables in the research object.	(295)
<b>Total Companies That Meet the Sample Criteria</b>	<b>106</b>
<b>Total Years of Research</b>	<b>4</b>
<b>Total of Sample</b>	<b>424</b>

Source: Author's own calculations based on our research data (2024).

Based on the table above, a research sample of 424 companies in five ASEAN countries was obtained.

## RESULT AND DISCUSSIONS

**Tabel 2. Descriptive Statistics**

Variabel	N	Mean	Std. Dev	Min	Max
Esg Score	424	55.28035	17.89048	6.76	91.79
ROA	424	0.048001	0.07617	-0.4678521	0.6557308
Tobins'Q	424	1.296344	1.477572	0.08	11.4
VAIC	424	5.38313	2.129569	0.748	11.453
HCE	424	2.529453	1.247682	0.002	5.109
SCE	424	1.488052	1.079961	0.003	4.03
RCE	424	1.365585	1.151141	0.001	4.783
SIZE	424	31.99965	1.481008	27.76	36.45
LEV	424	1.00033	1.095022	0.001	8.99
GDP	424	1.895986	4.833308	-9.518	9.691
PBV	424	3.022995	7.995267	-0.22	131.48
MarketCap	424	31.40642	1.189553	27.58	35.11
Industry	424	0.5660377	0.4962053	0	1

Source: Author's own calculations based on our research data (2024).

According to the table above, the ESG score, serving as the independent variable and ranging from 1 to 100, has an average of 55.28 and a standard deviation of 17.89, indicating considerable variability among the ESG scores of ASEAN-5 companies. As for financial performance, measured using ROA and Tobin's Q proxies, the ROA shows an average value of only 0.048, reflecting the overall performance of these companies in utilizing their assets to generate profits. Meanwhile, Tobin's Q has an average value of 1.29 which indicates that if the ratio value is greater than 1, then the average sample company is valued higher in the market than the listed company value (overvalued). Intellectual capital as a moderating variable with VAIC proxy and followed by its components HCE, SCE, and RCE prove that the average value of VAIC is 5.38313 which provides an overview of the level of intellectual capital obtained by the companies in the sample. The high average VAIC proves that, overall, companies in ASEAN-5 have significant levels of intellectual assets and can utilize them well to create value. Human Capital Efficiency (HCE) has an average value of 2.529453 which provides an overview of the level of investment and effectiveness of human capital in the sample companies. Structural Capital Efficiency (SCE) has an average value of 1.488052 which indicates that the high average SC proves that these companies, as a whole, have strong and efficient systems and processes. Relational Capital Efficiency (RCE) has an average value of 1.365585 indicating a high average RC which suggests that, overall, firms in ASEAN-5 have strong and mutually beneficial relationships between external stakeholders.

**Tabel 3. Results of Regression Analysis**

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
ESG SCORE	0.0005739 (0.088)*	-0.0005556 (0.366)	0.0006566 (0.095)*	0.003333 (0.094)*	0.0005623 (0.093)*	0.003787 (0.085)*
VAIC			0.013574 (0.006)***	0.0357053 (0.043)**		
ESG*VAIC			0.0002105 (0.013)**	0.0004596 (0.094)*		
HCE					0.0150685 (0.071)*	-0.0022373 0.477
ESG*HCE					0.0001937 (0.150)	0.0002577 (0.359)
SCE					0.0032408 (0.371)	0.1040886 (0.003)***
ESG*SCE					-0.0000538 (0.384)	0.0014292 (0.020)*
RCE					0.0250735 (0.021)**	0.0122464 (0.398)
ESG*RCE					0.0004055 (0.019)**	0.0004275 (0.283)
SIZE	0.468872 (0.004)***	0.6254179 (0.000)***	0.0461123 (0.005)***	-0.6257622 (0.000)***	0.0481164 (0.004)***	-0.6090479 (0.000)***
LEV	0.0027716 (0.400)	0.0999066 (0.008)***	0.0042309 (0.349)	0.09579 (0.012)**	0.004796 (0.332)	0.102566 (0.008)***



Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
GDP	- 0.0001722 (0.372)	0.0011806 (0.280)	-0.0000364 (0.472)	0.0007737 (0.352)	0.0038306 (0.497)	0.0011984 (0.278)
PBV	0.0062966 (0.054)*	0.1212606 (0.000)***	0.0064536 (0.049)**	0.1205644 (0.000)***	0.0065787 (0.046)**	0.1212535 (0.000)
MARKET CAP	0.029113 (0.002)***	0.2274673 (0.000)***	0.0305548 (0.001)***	0.2224809 (0.000)***	0.0283465 (0.003)***	0.207715 (0.000)***
INDUSTRY	Included	Included	Included	Included	Included	Included

\*\*\* $p < 1\%$ , \*\* $p < 5\%$ , \* $p < 10\%$

In the partial test results of Research Model 1, the ESG Score variable indicates a significance value of 0.088, which is below the alpha value, along with a positive coefficient. This indicates a positive correlation between ESG and financial performance, as reflected by ROA. In contrast, Research Model 2 demonstrates that the ESG Score variable presents a significant value of 0.366, which exceeds the alpha value and carries a negative coefficient. Therefore, ESG does not impact financial performance when assessed using the Tobin's Q proxy.

The findings from the regression analyses in Research Model 1 and Research Model 2, which focus on the initial hypothesis regarding the influence of ESG on financial performance, reveal a positive correlation between the ESG variable and financial performance as indicated by ROA. Consequently, H1 in this study is supported.

Results from the partial test in Research Model 3 show that the moderating variable of intellectual capital has a significance value of 0.095, which is below the alpha threshold and has a positive coefficient. This indicates that intellectual capital strengthens the connection between ESG and financial performance as indicated by ROA. Similarly, Research Model 4 reveals that intellectual capital presents a significance value of 0.094, also lower than the alpha value, and possesses a positive coefficient. Thus, intellectual capital bolsters the relationship between ESG and financial performance when the Tobin's Q proxy is applied.

The results of the regression analysis in Research Model 3 and Research Model 4, which address the second hypothesis (H2) concerning the findings highlight the influence of intellectual capital as a moderating factor in the connection between ESG and financial performance, demonstrating that this moderating variable strengthens that relationship. As a result, H2 in this study is confirmed. The partial test results for Research Model 5 indicate that the moderating variable for the components of intellectual capital shows significant values: HCE at 0.150 with a positive coefficient, SCE at 0.384 with a negative coefficient, and RCE at 0.019 with a positive coefficient, where the HCE and SCE components exceed the alpha value. Consequently, it can be inferred that Human Capital (HC) and Structural Capital (SC) weaken the relationship between ESG and financial performance as measured by ROA. In contrast, RCE, which is below the alpha value, suggests that Relational Capital (RC) strengthens the relationship between ESG and financial performance in terms of ROA.

In Research Model 6, the moderating variable furthermore, the individual components of intellectual capital also exhibit noteworthy values, including HCE at 0.359 with a negative coefficient, and RCE at 0.398 with a positive coefficient, both

of which exceed the alpha value, indicating that HC and RC weaken the relationship between ESG and financial performance with respect to ROA. However, the moderating variable SCE presents different results, with a value of 0.020 and a positive coefficient, which is below the alpha value. Therefore, it can be concluded that Structural Capital (SC) strengthens the relationship between ESG and financial performance as measured by Tobin's Q.

The regression analysis results from Research Model 5 and Research Model 6, which address the second hypotheses a, b, and c (H2a, H2b, H2c) regarding the impact of Human Capital (HC), Structural Capital (SC), and Relational Capital (RC) on enhancing the relationship between ESG and financial performance, indicate that the moderating variable HC weakens this relationship. However, differing results are observed for Structural Capital (SC) and Relational Capital (RC), where both show a significant influence in their moderating roles on the relationship between ESG and financial performance—SC moderates the relationship with Tobin's Q, while RC moderates it with ROA. Thus, H2a is rejected, while H2b and H2c are accepted in this research.

The regression analysis reveals a positive correlation between ESG and financial performance, as indicated by ROA. This implies that the effective adoption of ESG practices can boost operational efficiency and attract long-term investments, evidenced by an increase in ROA. ROA acts as a benchmark for assessing how efficiently a company generates profits from its assets, suggesting that enhancements in ESG practices can lead to improved asset management and operational efficacy. Key ESG elements, including effective environmental management, sustainable social initiatives, and strong corporate governance, can significantly elevate the productivity of a firm's assets and its ability to yield sustainable profits. However, in relation to the Tobin's Q metric, research often indicates that the direct influence of ESG factors on a company's market valuation is not consistently substantial. Tobin's Q evaluates the relative market value of a company compared to the book value of its assets and is more susceptible to market expectations concerning future growth and investment opportunities. Therefore, ESG factors might not always be directly reflected in market valuations or significantly shape investors' perceptions of a company's long-term worth. As a result, the discrepancies in the impact of ESG factors on ROA versus Tobin's Q may arise from differences in the methodologies employed to gauge and assess financial performance and market value.

Furthermore, intellectual capital strengthens the connection between ESG and financial performance, irrespective of whether it is assessed using ROA or Tobin's Q. This suggests that investing in intellectual capital contributes to an overall increase in a firm's perceived value both in the market and in its internal operations. When intellectual capital is viewed as a moderating variable, firms that possess significant intellectual capital are typically more adept at managing ESG initiatives effectively and implement ESG initiatives. With robust intellectual resources—including employee knowledge and expertise (human capital), an efficient organizational structure (structural capital), and strong external relationships (relational capital)—companies can more effectively integrate ESG practices into their business strategies. ESG practices, supported by solid intellectual capital, can lead to higher operating profits, as reflected in ROA, and

enhance the company's market valuation, as indicated by Tobin's Q (Chen et al., 2005).

However, if the human capital component is not considered, the results are less than optimal and may weaken the connection between ESG and financial outcomes, as incompetent or poorly trained human resources may hinder the effectiveness of ESG practices in achieving their objectives. If human capital is not managed well, then the expected operational efficiency of ESG practices may not be achieved, thus reducing their positive impact on ROA. Meanwhile, the market's perception of firm value, as measured by Tobin's Q, may also be affected. The market tends to value companies that not only have good ESG policies but are also able to implement them with the support of a competent workforce. As a result, insufficient human capital could restrict the efficacy of ESG practices in improving a company's financial performance, affecting both operational efficiency and market valuation.

Structural capital is shown to strengthen the link between ESG and financial performance as indicated by Tobin's Q. A solid internal framework allows organizations to integrate ESG practices into their operations more efficiently. Tobin's Q, which assesses a company's market value in relation to its book value, is significantly affected by market perceptions and investor expectations regarding the company's long-term growth potential and profitability (Rajagukguk et al., 2019). This, in turn, boosts investor and market trust in the organization's capability to create sustained value by implementing effective ESG practices.

Relational capital also significantly contributes to strengthening the connection between ESG and financial outcomes, particularly as a proxy for ROA. Strong relationships with external stakeholders can enhance support for a company's ESG initiatives, positively impacting its financial performance through improved reputation and customer loyalty. Surroca et al. (2010) found that robust stakeholder relationships can lower operational costs and increase efficiency, thereby enriching the firm's financial performance as measured by ROA through enhanced ESG practices. However, this positive effect may not always be reflected in Tobin's Q, which assesses the market's valuation of a firm based on expectations of long-term growth and associated risks. When companies invest in ESG and relational capital, investors may remain cautious about ESG assertions if they lack concrete long-term outcomes, leading to more conservative valuations and a lower Tobin's Q. Consequently, while relational capital can enhance the positive influence of ESG on operational efficiency and profitability as indicated by ROA, market perceptions and the long-term perspective embodied in Tobin's Q may regard this relationship as less effective or even detrimental to potential value.

## **CONCLUSION**

Based on the findings and discussions presented, several conclusions can be drawn regarding the influence of ESG on financial performance, especially through the moderating role of intellectual capital and its various elements: human capital, structural capital, and relational capital. This study highlights the importance of intellectual capital as a moderating element that bolsters corporate financial performance, which is expected to offer useful perspectives for organizations to create more comprehensive approaches and supportive policies, fostering a fair and

equitable work environment. Additionally, it aims to lay the groundwork for a deeper understanding of how to identify opportunities to enhance efficiency, productivity, and manage social risks that could influence the company's long-term sustainable growth.

This research adds to the body of knowledge regarding the relationship between ESG and corporate financial performance by including intellectual capital as a moderating element. The results indicate that intellectual capital can amplify the link between ESG and financial performance, with differing effects on the proxies of ROA and Tobin's Q. This creates avenues for further theoretical investigation into how intangible assets interact with corporate social responsibility. The findings provide practitioners with a basis to acknowledge the importance of integrating Environmental, Social, and Governance (ESG) principles to boost financial performance. Practitioners can see that ESG has a favorable effect on both Return on Assets (ROA) and Tobin's Q, which are essential metrics for evaluating a company's operational efficiency and market worth. By considering intellectual capital as a moderating factor, companies that have strong intellectual resources, especially in human and relational capital, can enhance the relationship between ESG and financial outcomes.

The limitation in the sample size results from the limited number of companies with ESG scores. Future studies should aim to utilize larger and more varied samples to improve the generalizability of the findings, potentially extending the research beyond the ASEAN-5 nations. Additionally, since this study reveals that ESG positively affects financial performance only when assessed through ROA, further research is necessary to dissect ESG into its components: E (Environmental), S (Social), and G (Governance). This will offer a more nuanced understanding of how each individual component impacts company performance.

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