




INTELLECTUAL CAPITAL AND FINANCIAL PERFORMANCE: THE MEDIATING EFFECT OF SUSTAINABILITY PERFORMANCE

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ABSTRACT

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Sustainability practices are challenging for today's businesses in developing countries, including small and medium-sized enterprises (SMEs). Most SMEs have limited resources, which hinders their sustainability performance. This study examined intellectual capital's (IC) role in financial and sustainability performance. It also aimed to identify the contribution of sustainability performance in improving the financial performance of SMEs, as well as to examine the mediating role of sustainability performance on the relationship between IC and financial performance. The research sample was 336 small and medium enterprises in Bali, Indonesia. Data were collected using a questionnaire, while the data analysis was conducted in SEM-PLS. The results showed that IC increased financial and sustainability performance. Meanwhile, sustainability performance also had a positive effect on financial performance. Finally, the statistical test results proved that sustainability performance mediated the influence of IC on financial performance. These findings imply that IC is a significant predictor of SMEs' financial performance, whether directly or via sustainability performance. Also, there is an urgent need for the government to develop social and environmental responsibility guidelines in the SME sector. Therefore, the practice of sustainability not only boosts the performance of SMEs but also assists the government in overcoming many social and environmental problems.

Contribution/Originality: This study focuses on the sustainability performance of SMEs in developing countries. Previous research has tended to examine the concept of sustainability as practiced by large companies in developed countries. There is a need to understand sustainability practices in different geographical and socio-economic contexts.

1. INTRODUCTION

Sustainable development is one of the main challenges of business, especially for small and medium enterprises (SMEs). The concept of sustainability reminds SMEs not to make economic performance their only business goal (Bombiak & Marciniuk-Kluska, 2018; Yusliza et al., 2020). SMEs must integrate economic, social, and environmental components within their business objectives. Nevertheless, most SMEs have limited resources, which hinders their participation in sustainability performance (Alkahtani, Nordin, & Khan, 2020; Chege & Wang, 2020). It has been argued that intellectual capital (IC) is necessary to achieve sustainability in the performance of

SMEs (Gross-Gołacka, Kusterka-Jefmańska, & Jefmański, 2020). Sustainability performance requires SMEs to have concern for their business environment and include sustainability practices in their business strategy to increase their financial performance (Gallardo-Vázquez, Valdez-Juárez, & Lizcano-Álvarez, 2019).

This study aims to close three research gaps. First, most academics focus on sustainability practices in large companies and tend to ignore sustainability practices in small companies. Practically, SMEs employ many workers for their operational activities, making them vulnerable to social and labor problems (Bahta, Yun, Islam, & Ashfaq, 2021). In addition, the SME production process utilizes various natural resources and produces waste that impacts the environment and local communities. However, SME actors generally assume that their activities do not significantly impact society and the environment (Gross-Gołacka et al., 2020). Based on the aforementioned phenomena, however, it is appropriate for SMEs to apply ethical practices to reduce social and environmental problems (Bahta et al., 2021). This study examines the implementation of social and environmental responsibility in SMEs in the developing country of Indonesia. Second, one of the challenges SMEs face in implementing the concept of sustainability is limited financial resources (Aigbedo, 2019; Gross-Gołacka et al., 2020; Khan, Anwar, Li, & Khattak, 2021; Khattak, 2020). In this case, SMEs need IC to effectively utilize their resources, namely human capital, relational capital, and structural capital. IC is a resource driver for creating sustainable value (Alvino, Di Vaio, Hassan, & Palladino, 2021). However, few previous studies have investigated the effect of internal factors, such as IC, on sustainability performance (Alvino et al., 2021; Gallardo-Vázquez et al., 2019), especially in developing countries such as Indonesia. This study fills a gap by examining the contribution of IC to sustainability and financial performance. Third, this study was conducted in the developing country of Indonesia's SME sector. Most research on sustainability practices has been conducted in developed countries (Bahta et al., 2021). Only a small number of academics have focused on developing countries, such as Ghana (Agyemang & Ansong, 2017), Pakistan (Ikram et al., 2020), and Sri Lanka (Ye & Kulathunga, 2019). From an institutional perspective, each region has different Corporate Social Responsibility (CSR) practices (Sen & Cowley, 2013). Developed countries have different sustainability practices than developing countries because developing countries encounter several limitations in implementing sustainable practices (Aigbedo, 2019; Khan et al., 2021). Therefore, there is a need to understand social and environmental responsibility practices in different geographic and socio-economic environments. Previous studies on sustainability practices and company performance in developed countries should not be used to create policy guidelines in developing countries (Ikram et al., 2020). Therefore, this study fills the gap by adding empirical evidence in the context of a developing country.

This study examines the direct effect of IC on sustainability and financial performance. This study also identifies the contribution of sustainability practices in improving the financial performance of SMEs. Another objective is to examine the mediating role of sustainability performance on the relationship between IC and financial performance. The results contribute to the development of theory, practice, and policymaking. From a theoretical perspective, the results provide a better understanding of the Resource-Based View model, which highlights the role of intangible resources in sustainability practices and their impact on financial performance. The results also aim to increase SMEs' awareness of the need to allocate funds to social and environmental programs as well as focusing on economic-oriented programs. This finding also increases SME actors' understanding of the use of intangible resources to improve sustainability and financial performance. In policy development, the results of this study provide governments insight to set green economic policies, especially for SMEs in developing countries.

2. LITERATURE REVIEW

2.1. Resourced-Based View Theory

The Resource-Based View (RBV) model recognizes the importance of resources for a firm's competitiveness (Huang, Dyerson, Wu, & Harindranath, 2015). For companies, products and resources are two sides of a coin. The product directly drives the company's performance, while resources play an indirect role through the product's

production process (Newbert, 2008). IC is an intangible resource that helps companies create a competitive advantage and improve their performance and market value (Khan et al., 2021). Several researchers have identified three components of IC, namely knowledge relating to employees (human capital), customers and stakeholders (relational capital), and the company itself (structural capital) (Bontis, 1998).

In the SME context, organizations have limited tangible assets, thus forcing SMEs to utilize intangible assets. There is an assumption that maximum knowledge will improve company performance and even that it provides better value than tangible assets (Gallardo-Vázquez et al., 2019). In addition to IC, sustainability practices are also considered a valuable asset within an organization. Sustainability practices that are conducted voluntarily imply commitment and concrete actions to legitimize the organization's position (Gallardo-Vázquez et al., 2019) and achieve long-term performance (Alvino et al., 2021; Pedro, Leitao, & Alves, 2018). The concept of sustainability encourages organizations to focus on maximizing profit while paying attention to the welfare of workers and the industry's impact on the natural environment (Sapta, Sudja, Landra, & Rustiarini, 2021). Thus, IC and sustainability practices are valuable intangible assets for an SME to achieve competitive performance.

2.2 Intellectual Capital and Financial Performance

IC refers to a combination of information, knowledge, skills, and experience that creates a competitive advantage (Stewart, 1997). RBV theory recognizes that every organization has the potential to create an advantage if it has adequate resources, including those in the SME sector. Generally, SMEs have limited resources, and IC is a cheap and less risky resource (Anwar, Khan, & Khan, 2018). Small companies rely on human capital to enhance creativity when producing products. Structural capital allows a workforce to learn, create new products, and redesign jobs in a way that increases organizational value (Gross-Gołacka et al., 2020). Human capital and structural capital work together to produce relational capital. In this context, SMEs produce products that meet the needs and expectations of customers to create loyalty. In addition, relational capital helps create good organizational relationships with other external stakeholders. Thus, IC creates creativity and productivity and improves performance. Previous evidence has shown that IC positively influences SMEs' performance (Ahmad, Wu, & Khattak, 2022; Crema & Verbano, 2016). Thus, the first hypothesis is formulated as follows:

H1: IC has a positive effect on financial performance.

2.3 Intellectual Capital and Sustainability Performance

Recently, SMEs have faced the challenge of adapting to a knowledge-based economy. SMEs must also be sensitive to the social and environmental issues relevant to their business. In this case, organizations must prepare their internal capacity to face the challenges of sustainability practices and maintain financial performance in the future. Referring to the RBV model, organizations should integrate knowledge into sustainability practices (Barney, 1991). IC is one way to integrate organizations' social and environmental responsibility into SME business strategies (Bahta et al., 2021; Gras-Gil, Palacios Manzano, & Hernández Fernández, 2016). Human capital guides organizations when implementing sustainability actions. Relational capital contributes to promoting sustainability programs in an effort to build organizational relationships with external stakeholders. Relational capital also plays a role in positioning social and environmental programs to increase the reputation and value of the organization. Meanwhile, structural capital helps provide the infrastructure for sustainability programs to increase the organization's competitiveness and market share (Alvino et al., 2021; Benevene, Buonomo, Kong, Pansini, & Farnese, 2021). Several studies have shown that IC encourages SMEs toward more sustainable performance, aligning with the Sustainable Development Goals (SDGs) (Ahmad et al., 2022; Alvino et al., 2021; Khan et al., 2021; Yusliza et al., 2020). Thus, the second hypothesis is formulated as follows:

H2: IC has a positive effect on sustainability performance.

2.4. Sustainability Performance and Financial Performance

The need to implement sustainability is not only apparent in large but in small enterprises. However, there is a perception that SMEs tend to be reluctant to participate in sustainability practices for various reasons (Santoro, Ferraris, Giacosa, & Giovando, 2018). Small entrepreneurs are willing to apply sustainability standards if they stand to directly benefit financially from sustainability practices (Upstill-Goddard, Glass, Dainty, & Nicholson, 2015). SMEs are motivated to perform CSR activities when they see the benefits and value for their business. In addition, SMEs want sustainability practices to result in high performance and competitiveness (Ahmed & Najmi, 2018). From an RBV perspective, experts argue that social and environmental responsibility practices improve the relationship between companies and stakeholders. SMEs with good social and environmental programs will gain a positive reputation in the market, ultimately improving their financial performance (Agyemang & Ansong, 2017). For example, environmental responsibility programs (such as reduced consumption of water and energy, environmentally friendly products, and waste recycling) indirectly result in better financial performance in the form of cost reductions (DiSegni, Huly, & Akron, 2015). In developing countries, concern for the environment also opens up opportunities for SMEs to win more contracts, especially with customers who are aware of the environment (Ikram et al., 2020). Previous studies have also confirmed a positive relationship between social and environmental responsibility practices and the financial performance of SMEs (Ahmad et al., 2022; Bahta et al., 2021; Bartolacci, Caputo, & Soverchia, 2020). Thus, the third hypothesis is formulated as follows:

H3: Sustainability performance has a positive effect on financial performance.

2.5. Intellectual Capital, Sustainability Performance, and Financial Performance

The literature suggests that IC and sustainability practices are two complementary strategies (Gallardo-Vázquez et al., 2019). A business needs adequate resources to improve green management practices (Aigbedo, 2019). In the SME sector, IC plays a vital role in CSR practices (Gallardo-Vázquez et al., 2019; Khan et al., 2021). In particular, IC encourages the development of social and environmental initiatives that ultimately contribute to sustainability and financial performance (Jardon & Dasilva, 2017; Khan et al., 2021). Companies that maximize the role of IC will creatively develop green products and effectively carry out green activities. These activities indirectly increase their competitive advantage and business performance (Khan et al., 2021). Previous studies have argued that CSR and IC combine into a comprehensive strategy to increase organizational competitiveness (Gallardo-Vázquez et al., 2019). Another finding was that green supply chain management mediates the relationship between IC and financial performance (Khan et al., 2021). Thus, the fourth hypothesis is formulated as follows:

H4: Sustainability performance mediates the relationship between IC and financial performance.

The research model is presented in Figure 1.

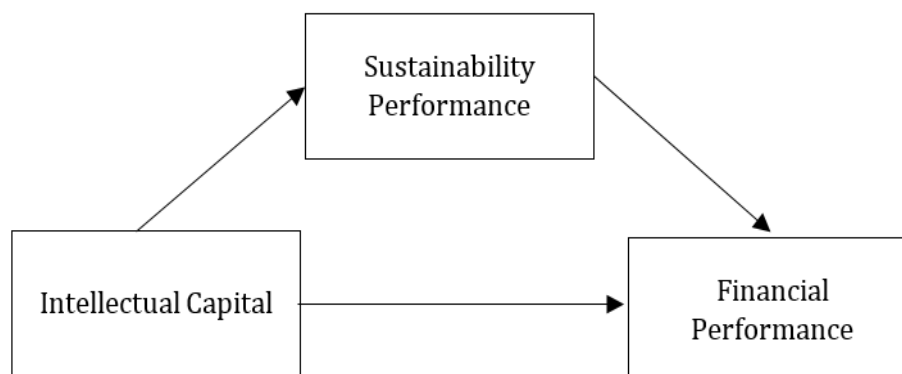


Figure 1. The research model.

3. METHODOLOGY

The population of this research was all the SMEs in Bali Province, Indonesia, while the research sample comprised 336 woodcraft enterprises. The choice of the woodcraft industry had two reasons. First, the woodcraft industry employs much of the surrounding community. Also, the SME production process uses natural resources as raw materials. Therefore, woodcraft SMEs should pay attention to the surrounding social and natural environments. Second, the woodcraft industry is both highly aesthetic and competitive, implying that SME owners must always strive to maximize IC in innovating and producing creative products. The data collection technique was a questionnaire; the researcher visited the location of the SME in person and asked the owner to fill out the submitted questionnaire. This study examined the interactions among SMEs' IC, sustainability performance, and financial performance. The IC variable comprised the company's intangible assets, which were described in three elements: human capital, structural capital, and relational capital. This section of the questionnaire was adapted from previous research (Aljuboori, Singh, Haddad, Al-Ramahi, & Ali, 2019) and contained 17 statements. The human capital element had five indicators: employees had a high skill level, were experienced, creative, knowledgeable, and quick in problem-solving. The structural capital elements included seven indicators: the business having relevant information, efficient procedures, responding quickly to change, easy access to information, supporting innovation, flexibility and comfort, and prioritizing new market development. Finally, relational capital included five indicators: effective collaboration and intimate communication, appropriate interaction with stakeholders, long-term customer relationships, excellent suppliers, and good relationships with strategic partners. The questionnaire answers used a five-point Likert scale, with options ranging from strongly disagree to strongly agree. The sustainable performance variable consisted of the SME's performance, assessed through social, environmental, and economic elements. It included 12 statements adopted from previous research (Cantele & Zardini, 2018). The social element included 4 indicators: having a health and safety procedure, supporting continuing education, providing proper and fair rewards, and treating employees fairly and respectfully. The environmental element had five indicators: adopting processes to reduce energy consumption, reducing and recycling waste, reducing water consumption, reducing harmful emissions, and reducing environmental effects. Meanwhile, the economic element included three indicators: involving all suppliers in new product and service development, organizational changes, and providing customers with all necessary information. The questionnaire used a five-point Likert scale, ranging from strongly disagree to strongly agree.

The financial performance variable was an assessment of the SME's financial performance and contained three indicators: the amount of production, production costs, and net profit. As SMEs do not publish their financial performance to the public, SME owners or managers assessed their business performance over the past three years and compared it with the performance of significant competitors. The questionnaire was adapted from previous research (Cantele & Zardini, 2018; Saeidi, Sofian, Saeidi, Saeidi, & Saaeidi, 2015) and used a five-point Likert scale, ranging from strongly disagree to strongly agree. Though based on self-assessment, this method is seen as more adequate, fruitful, and advantageous, especially in developing countries (Semrau, Ambos, & Kraus, 2016).

The study used a variant of Structural Equation Modeling (SEM-PLS) to obtain results and explain the relationships between the latent variables. This study examined the effect of IC on sustainability performance and financial performance, as well as the effect of sustainability performance on financial performance. Finally, it examined the role of sustainability performance as a mediating variable between IC and financial performance.

4. RESULTS

4.1. Demographics of Small and Medium Enterprises

This study involved 336 woodcraft enterprises as the research sample. The demographic characteristics of the companies are shown in Table 1. Table 1 describes the characteristics of the companies, including the age of the business, the number of employees, total assets, and total sales per year. The data shows that most of the SMEs had

been operating between 11 and 20 years (32.74%). This indicates that woodcraft SMEs have sufficient internal capacity to compete. Regarding the employee number, most SMEs have 1-10 employees (90.18%). Recently, the number of employees has decreased due to the Covid-19 pandemic. Nevertheless, SMEs still employ experienced workers to maintain their performance. As many as 85.71% of SMEs have total assets ranging from 50 million-500 million, while 51.79% of SMEs sell 300 million-2.5 billion worth of products per year.

Table 1. Demographics of SMEs.

Description	Percentage
Age of business:	
a. 3-10 years	27.08%
b. 11-20 years	32.74%
c. 21-30 years	21.13%
d. >30 years	19.05%
Number of employees:	
a. 1-10	90.18%
b. 10-20	8.04%
c. >25	1.78%
Total assets:	
a. Less than 50 million	10.72%
b. 50 million-500 million	85.71%
c. 500 million-10 billion	3.57%
Total sales (per year):	
a. Less than 300 million	46.13%
b. 300 million-2.5 billion	51.79%
c. 2.5 billion-50 billion	2.08%

4.2. Outer and Inner Model Test

The research data were analyzed using Partial Least Squares (PLS). In the first test, the researcher tested the outer model. The results of the convergent validity test presented a loading factor value of 0.711-0.887, indicating that each indicator had a reliable value (see Table 2). Table 2 also shows that the composite reliability and Cronbach's alpha values were greater than 0.7, meeting the reliability requirements. In addition, each construct's Average Variance Extracted (AVE) value was more significant than 0.5. Thus, the test results met the validity requirements. The structural model (inner model) was measured using the R-Squared value to describe the causality relationship between the latent variables. The statistical test results revealed that 21.9% of the variability of sustainability performance is explained by the IC variable, while other factors explain the remaining 78.1%. Meanwhile, 35.8% of the variability of financial performance is explained by the IC and sustainability performance variables. Other variables influence the remaining 64.2%.

4.3. Hypothesis Testing Results

This study examined the effect of IC on financial performance and sustainability performance, as well as the effect of sustainability performance on financial performance. The results of the direct influence test are presented in Table 3.

Table 3 shows that IC has a positive effect on financial performance (p-value = 0.000) and sustainability performance (p-value = 0.000). This finding indicates that IC simultaneously improves sustainability and financial performance. Meanwhile, sustainability performance positively affects financial performance (p-value = 0.000).

Table 2. Validity and reliability tests.

Items	Loading factor	Composite reliability	Cronbach Alpha	AVE
Intellectual Capital (IC)		0.961	0.957	0.590
<i>Human capital</i>				
HC1	0.711			
HC2	0.725			
HC3	0.714			
HC4	0.724			
HC5	0.737			
<i>Structural Capital</i>				
SC1	0.815			
SC2	0.799			
SC3	0.814			
SC4	0.777			
SC5	0.811			
SC6	0.814			
SC7	0.801			
<i>Relational Capital</i>				
RC1	0.769			
RC2	0.793			
RC3	0.742			
RC4	0.744			
RC5	0.755			
Sustainability Performance (SP)		0.959	0.954	0.663
<i>Social</i>				
So1	0.803			
So2	0.797			
So3	0.786			
So4	0.819			
So5				
<i>Environmental</i>				
Ev1	0.813			
Ev2	0.842			
Ev3	0.808			
Ev4	0.845			
Ev5	0.835			
<i>Economic</i>				
Ec1	0.808			
Ec2	0.796			
Ec3	0.817			
Financial Performance (FP)		0.902	0.837	0.754
FP1	0.864			
FP2	0.853			
FP3	0.887			

Table 3. Direct effect test results.

Construct	Original Sample (O)	T Statistics (O/STDEV)	P Values	Information
Intellectual Capital -> Financial Performance	0.483	10.989	0.000	Significant
Intellectual Capital -> Sustainability Performance	0.345	6.771	0.000	Significant
Sustainability Performance -> Financial Performance	0.376	7.702	0.000	Significant

These statistics indicate that the statistical test results support hypotheses 1, 2, and 3. Next, the study examined the role of sustainability performance as a mediating variable between IC and financial performance, the results of which are presented in Table 4.

Table 4. Indirect effect test results.

Construct	Original Sample (O)	T Statistics (O/STDEV)	P Values	VAF	Information
Intellectual Capital -> Sustainability Performance -> Financial Performance	0.130	4.959	0.000	0.268	Partial Mediation

The statistical test results in Table 4 show that sustainability performance mediates the effect of IC on financial performance. These results support hypothesis 4. The Variance Accounted For (VAF) value of 26.8% indicates that the sustainability performance variable partially mediates the relationship.

4.3.1. Intellectual Capital and Financial Performance

The statistical test results show that IC has a positive effect on financial performance. Referring to the RBV model, every organization has the potential to achieve excellence if it optimizes its IC. In the SME context, IC is not only a cheaper and less risky resource (Anwar et al., 2018), but it provides companies with added financial value. Small companies rely on human capital to produce creative products. Structural capital allows the workforce to learn, create new products, and redesign their roles to increase organizational value (Gross-Gołacka et al., 2020). Meanwhile, relational capital helps build good organizational relationships with external stakeholders. Thus, IC becomes a strategic internal organizational resource to achieve a competitive advantage (Dar & Mishra, 2020) as well as increased competitiveness and financial growth (Benevene et al., 2021; Gross-Gołacka et al., 2020). Even though IC has become a rare, valuable, and irreplaceable organizational asset (Benevene et al., 2021), firms are more likely to gain a competitive advantage by investing in intangible assets (Gross-Gołacka et al., 2020; Saptia, Rustiari, Kusuma, & Astakoni, 2021). If the company utilizes IC to its full advantage, it becomes a new resource to improve business performance (Khan et al., 2021; Papíková & Papík, 2022).

4.3.2. Intellectual Capital and Sustainability Performance

The statistical test results reveal that IC positively affects sustainability performance. This finding emphasizes that SMEs must be sensitive to social and environmental issues relevant to their business scope. Referring to RBV theory, organizations must integrate IC into sustainability practices to improve their competitive advantage and long-term performance (Barney, 1991). Human capital directs organizations to create value-added sustainability programs, while relational capital promotes sustainability programs to stakeholders. Meanwhile, structural capital provides the infrastructure for sustainability programs to increase the organization's reputation and value (Benevene et al., 2021; Gross-Gołacka et al., 2020). Many studies analyzing the role of IC in sustainability practices have revealed that these internal resources prompt organizations to take social action and protect the environment (Alvino et al., 2021). These findings support prior evidence of a positive relationship between IC and sustainability performance (Dal Mas, 2019; Khan et al., 2021; Massaro, Dumay, Garlatti, & Dal Mas, 2018). Other studies have also revealed that green IC positively affects economic, social, and environmental performance (Yusliza et al., 2020).

4.3.3. Sustainability Performance and Financial Performance

The third hypothesis stated that sustainability performance positively affects financial performance, and the results support this hypothesis. This finding implies that the sustainable development of a company increases its financial results. Although SMEs are generally reluctant to participate in sustainability practices for various reasons (Santoro et al., 2018), they are motivated to conduct CSR activities when they see the benefits and value for their business. Regarding RBV, experts argue that social and environmental responsibility practices improve the relationship between companies and stakeholders (Aljuboori et al., 2019). The implementation of sustainability is positively related to business performance because the principle of sustainability is consistent with the preferences of stakeholders, who increasingly support sustainability (Kautonen et al., 2020; Landrum & Ohsowski, 2018). The existence of goal alignment allows organizations to generate more value for stakeholders than competitors that are less sustainability oriented, which ultimately positively impacts business performance (Freeman & Liedtka, 1997). Therefore, SMEs with good social and environmental programs gain a positive reputation in the market, ultimately improving their financial performance (Agyemang & Ansong, 2017). This result supports previous studies that

found a positive relationship between social and environmental responsibility practices and the financial performance of SMEs (Ahmad et al., 2022; Bahta et al., 2021; Bartolacci et al., 2020).

4.3.4. Intellectual Capital, Sustainability Performance, and Financial Performance

Finally, the test results support the fourth hypothesis that sustainability performance mediates the relationship between IC and financial performance. The statistical test results also indicate that the sustainability performance variable has a partial mediation role. This implies that the IC variable influences the dependent variable directly or indirectly through sustainability performance as a mediator variable. On the one hand, the optimal use of IC directly provides the organization with financial benefits (Gallardo-Vázquez et al., 2019). On the other hand, the IC variable indirectly contributes to financial performance through improved sustainability performance. Organizations that maximize the role of IC will be able to create green innovation and conduct green activities effectively. These sustainability achievements contribute to the company's competitive advantage and performance (Khan et al., 2021; Papíková & Papík, 2022; Yusliza et al., 2020). Previous evidence has shown that sustainability practices mediate the relationship between IC and financial performance (Khan et al., 2021). It can be concluded that both IC and sustainability performance significantly improve SMEs' financial performance.

5. CONCLUSION

The concept of sustainability is one of SMEs' main business challenges. This study aimed to fill the gap in the previous research by examining SMEs' implementation of social and environmental responsibility in the developing country of Indonesia, as well as their impact on financial performance. This study also filled a gap in the previous research by examining the contribution of IC to sustainability and financial performance, particularly in the context of a developing country. The results show that IC is a vital predictor of SMEs' improved financial performance. IC also promotes sustainable development, which is characterized by the achievement of sustainable performance. These findings indicate that SMEs that implement sustainability principles (economic, social, and environmental) positively impact their company finances. This research has implications for academics, practitioners, and policymakers in the SME sector. Theoretically, these findings support the RBV theory view that the involvement of IC and sustainability practices leads to improved SME performance. The empirical evidence also points to the mediating role of sustainability performance between IC and SMEs' financial performance. These results add to the literature on SMEs' sustainability performance in a developing country context.

Practically speaking, this study's findings emphasize the importance of SME actors understanding and applying the concept of sustainability in their business practices. SME actors should pay attention to the welfare of their workforce by providing decent salaries, support for continuing education, gender equality, and health and safety insurance for employees. SME actors should also strive to preserve the environment by reducing water and energy consumption, creating environmentally friendly products, and initiating waste recycling. Therefore, the practice of sustainability not only boosts the performance of SMEs but also assists the government in overcoming many social and environmental problems. From a regulation perspective, there is an urgent need for the Indonesian government to develop national guidelines for social and environmental responsibility in the SME sector. This process must involve academia, business associations, chambers of commerce and industry, trade unions, non-governmental organizations, and other stakeholder groups. The stakeholders will assist in identifying the requirements and challenges for sustainable development in Indonesia. Thus, the government should further encourage SMEs to integrate social and environmental responsibility practices into their business processes.

This research has certain limitations. First, sustainability is a broad concept. Given that this research was a preliminary study on the SME sector in Indonesia, it only analyzed sustainability performance in general. It has not identified the role of each element of sustainability; therefore, it has not been able to determine which element has the most significant influence on the financial performance of SMEs. Future research should separately examine the

three elements of sustainability, namely social, environmental, and economic, to make recommendations on the elements that have the most significant impact on the financial performance of SMEs. Second, the practice of social and environmental responsibility requires adequate resources and funding sources, especially in the SME sector. This study has only examined the role of intangible resources, namely IC, on financial performance but has not examined the availability of funding sources for sustainability practices. Future studies should explore the influence of internal, government, and third-party funding sources on sustainability performance.

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