




← → ↻ 🔍 conscientiabeam.com/journal/11 ☆ 📧 📄 📁 📌 📎 📏



Select Language 

[About](#)
[Journals & Books](#)
[Authors](#)
[Editors](#)
[Reviewers](#)
[Membership](#)
[Pay Invoice](#)



**INTERNATIONAL JOURNAL OF  
MANAGEMENT AND  
SUSTAINABILITY**

Online ISSN: 2306-0662  
Print ISSN: 2306-5656




[Download Journal Flyer](#)  
[RSS Feeds](#)  
[Quick Submission](#)  
[Login/Submit/Track](#)

**QUICK LINKS**  
[Information](#)  
[Instructions for Authors](#)  
[Editorial Board](#)  
[Indexed/abstracted in](#)  
[Current Issue](#)  
[Archive](#)  
[Login/Track](#)

**Features**  

*International Journal of Management and Sustainability* (e-ISSN 2306-0662/p-ISSN 2306-5656) is a peer-reviewed journal of business, economic, energy, environmental, management and social sustainability of human beings. It seeks to provide a forum for debates on practical, theoretical and policy implications for sustainable development. IJMS also encourages studies on solutions to improve corporate performance towards sustainability.

- First Review:** The editor or editorial assistant decides whether the article fits within the journal's aims and scope. Next a checked for the similarity rate is completed using CrossCheck, powered by iThenticate. Any manuscripts out of the journal's scope or having plagiarism, including self-plagiarism, are rejected without peer reviewed.
- Publication:** Articles are peer-reviewed and a first decision provided to authors approximately 20 to 30 working days after submission. Publication is undertaken in 50 to 60 days.



Type here to search
29°C Sebagian cerah
15:14  
01/05/2025

← → ↻ 🔍 archive.conscientiabeam.com/index.php/11/issue/view/1288 🔍 ☆ 📧 📄 📁 📌 📎 📏

HOME / ARCHIVES / Vol. 13 No. 4 (2024)

**Vol. 13 No. 4 (2024)**

PUBLISHED: 2024-09-29

**ARTICLES**

Are the corporate voluntary disclosures and transparency in the transitional economy better than the pre-transitional economy? Evidence from developing country  
Shamsul Nihar Abdullah, Mufjul Hoq Masum, Mohammad Faridul Alam 756-768  
[ABSTRACT](#) [VIEW PDF](#) [DOWNLOAD PDF](#)

Identifying the job competencies of Generation Z hotel employee in an intelligent environment in China  
Xinyi He, Rozila Ahmad, Roshita Abdul Razak 769-780  
[ABSTRACT](#) [VIEW PDF](#) [DOWNLOAD PDF](#)

Evaluating the impact of business incubators on promoting growth and creativity in women's projects in Jordan  
Abdel Karim Fawwaz AlBataineh, Ayman Saleh Mustafa Harb, Ahmad Hisham Alnajjar, Reza Shavkat Alhaj 781-794  
[ABSTRACT](#) [VIEW PDF](#) [DOWNLOAD PDF](#)

Embracing the role of business performance to foster the association between digital marketing, intellectual capital, and business sustainability  
Wilson Bangun, Susanti Saragih, M. Sienly Veronica, Sri Zananti, Tatik Budiningsih 795-807  
[ABSTRACT](#) [VIEW PDF](#) [DOWNLOAD PDF](#)

Marketing and IT capability as mediators: The role of digital marketing and orientation on SMEs marketing performance  
Rudy Hayanto, Muhammad Hanum Sulptio 808-817  
[ABSTRACT](#) [VIEW PDF](#) [DOWNLOAD PDF](#)

Exploring the impact of consumer behavior and innovation orientation on business strategy and firm performance: insights from MSMEs in Indonesia  
Siti Fatmahan, Anasri Hidayat, Mimiayani 818-831

Type here to search
15:15  
01/05/2025



## Embracing the role of business performance to foster the association between digital marketing, intellectual capital, and business sustainability

**Wilson Bangun**<sup>1</sup>

**Susanti Saragih**<sup>2+</sup>

**M. Sienly**

**Veronica**<sup>3</sup>

**Sri Zaniarti**<sup>4</sup>

**Tatik Budiningsih**<sup>5</sup>

<sup>1,2,3,4,5</sup> Department of Management, Faculty of Business, Universitas Kristen Maranatha, Indonesia.

<sup>1</sup>Email: [wilson.bangun@yahoo.co.id](mailto:wilson.bangun@yahoo.co.id)

<sup>2</sup>Email: [susanti.saragih@eco.maranatha.edu](mailto:susanti.saragih@eco.maranatha.edu)

<sup>3</sup>Email: [lee\\_pingping@yahoo.com](mailto:lee_pingping@yahoo.com)

<sup>4</sup>Email: [sri.zaniarti@eco.maranatha.edu](mailto:sri.zaniarti@eco.maranatha.edu)

<sup>5</sup>Email: [tatik.budiningsih@eco.maranatha.edu](mailto:tatik.budiningsih@eco.maranatha.edu)



(+ Corresponding author)

### ABSTRACT

#### Article History

Received: 18 March 2024

Revised: 22 August 2024

Accepted: 9 September 2024

Published: 26 September 2024

#### Keywords

Business performance  
Business sustainability  
Digital marketing  
Intellectual capital  
Knowledge creation  
Small-medium enterprise.

This study aims to explore the relationship between digital marketing and business performance and sustainability in small-medium enterprises (SMEs) in Bandung, Indonesia. Additionally, it examines the mediation power of business performance in enhancing the association of digital marketing, intellectual capital, and business sustainability. We employed a quantitative approach and acquired data from 308 SMEs in Bandung, Indonesia. Data collection utilized Google Forms and purposive sampling methods. We tested the hypotheses using Smart PLS. The results indicate that digital marketing has no significant effect on business performance. However, we found that intellectual capital acts as a catalyst for both business performance and sustainability. Given the identified role of intellectual capital as a catalyst for both business performance and sustainability, SMEs owners should prioritize investments in knowledge creation by providing employee training, fostering a culture of continuous learning, and supporting research and development initiatives. Investments in knowledge creation and innovation are crucial for SMEs to enhance business performance and sustainability. This involves providing employee training, fostering a culture of continuous learning, and supporting research and development initiatives.

**Contribution/Originality:** Discussions on digital marketing often center on short-term benefits, such as immediate sales. This research broadens the scope by recognizing the potential of digital strategies to contribute to the long-term sustainability of a business. This opens avenues for further investigation of the mechanisms through which digital marketing practices influence sustainability.

### 1. INTRODUCTION

Businesses play a pivotal role in promoting sustainability by integrating environmentally and socially responsible practices into their operations. Beyond profit-making, modern businesses are increasingly recognizing their responsibility to contribute positively to the planet and society. This responsibility involves adopting sustainable sourcing and production methods, reducing carbon footprints, and embracing ethical labor practices. Business address global challenges such as climate change and social inequality by incorporating sustainability into their core values, enhancing their long-term viability. Innovation and collaboration can help businesses achieve economic success while contributing to environmental stewardship, demonstrating the connection between

economic success and environmental stewardship (McDowell, Peake, Coder, & Harris, 2018). This responsibility applies not only to big firms but also to small and medium-sized businesses (Nghah, Wahab, & Salleh, 2015).

Small- and medium-sized enterprises (SMEs) have immense potential for championing sustainability practices. Despite their size, SMEs can be agile and innovative, allowing them to swiftly implement eco-friendly measures and adapt to changing environmental standards (Bruce et al., 2023). Their local focus often contributes to their community's economic development and job creation. When committed to sustainability, SMEs can demonstrate that responsible business practices are feasible on a small scale. Moreover, their flexibility allows experimentation with green technologies and circular economic models. SMEs have the capacity to contribute significantly to global sustainability goals, contributing to a more environmentally aware and socially responsible business environment.

SMEs play a significant role in emerging economic development of emerging economies, contributing substantially to the Gross Domestic Product (GDP). For instance, in Indonesia, SMEs account for around 61% of the GDP (Indonesian Investment, 2022). Furthermore, Diliana, Rafei, Safrida, and Fadillah (2019) reported in a BPS report that SMEs in Indonesia numbered over 26 million businesses, representing 98.68% of the total non-agricultural businesses. These businesses employ over 59 million people, comprising approximately 75.33% of the total non-agricultural workforce. We cannot overstate the importance of SMEs in fostering economic growth and promoting sustainable practices in Indonesia. I removed the repeated mention of the Indonesian Ministry of Cooperatives and Small and Medium Enterprises and instead used the Central Statistics Agency (BPS) as the sole source for the statistics.

However, SMEs face many difficulties running their businesses and implementing sustainable practices. For example, SMEs have limited financial resources, which restricts them from investing in technologies that enable sustainability (Nghah et al., 2015; Permatasari & Gunawan, 2023). Large companies easily use digital marketing through a variety of digital tools such as websites, blogs, Twitter, and Facebook to engage with their customers and recruit staff who are experts in conducting product/service campaigns and optimizing digital marketing (Briones, Kuch, Liu, & Jin, 2011; Ritz, Wolf, & McQuitty, 2019). SMEs rely solely on owners' abilities to do so. Frequently, there is a lack of knowledge regarding the distinctiveness of social media practices and their experiences. SMEs often lack understanding of the opportunities offered by social media because owners are limited in access to information and knowledge about digital marketing (Nakara, Benmoussa, & Jaouen, 2012). The situation forces SMEs to rely solely on digital marketing for survival, and their rigid routines stem from a lack of intellectual capital (Bontis, William Chua Chong, & Richardson, 2000). Furthermore, the absence of clear policies pertaining to sustainability practices for SMEs has resulted in a low level of awareness among SMEs about the implementation of these practices. These constraints, paired with difficulties forecasting future demand and a lack of technological skills, contribute to an organization's ability to effectively engage with its customers and build reputation and business performance (Briones et al., 2011; Bruce et al., 2023).

While prior studies have demonstrated the role of digital marketing and intellectual capital in SMEs' sustainability practices (Bruce et al., 2023) the interplay between these variables remains largely unexplored. Small enterprises may find it advantageous to engage in and establish a digital marketing plan, as well as enhance their intellectual assets in promoting business sustainability. They achieve these benefits by enhancing operational efficiency through cost reduction, innovation, and productivity enhancement. When business performance is positively perceived, SMEs see the potential and power of SMEs to implement sustainability practices. Meanwhile, previous research is in agreement that digital marketing and intellectual capital contribute to sustainability practices and, in the long run, will improve business performance (Lu, Rodenburg, Foti, & Pegoraro, 2022). The inconsistent relationship between whether business performance affects sustainability practices or whether sustainability practices affect business performance has led researchers to conduct this study to clarify the relationships between digital marketing, intellectual capital, business performance, and sustainability practices in

SMEs. This research aims to elucidate the underlying mechanisms by examining company performance as an opaque entity.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Digital marketing is a method that uses technology, primarily the Internet, but also other digital media, such as mobile phones and display advertising, to promote products, market them, and facilitate transactions for buying and selling products ([https://en.wikipedia.org/wiki/Digital\\_marketing](https://en.wikipedia.org/wiki/Digital_marketing)). Digital technology is key to unlocking a company's full potential and igniting the spirit of entrepreneurship. In the digital age, it offers businesses a unique opportunity to thrive due to its ability to transform performance (Obermayer, Kővári, Leinonen, Bak, & Valeri, 2022). Through digital marketing, companies can gain access to new markets and information about potential consumers, opening up new sales opportunities. Digital marketing is a cost-effective solution that can significantly reduce expenses, particularly in business promotion and rental. By reducing expenses, companies can significantly boost their business performance and maximize profitability. Therefore, digital marketing can improve business performance. Even in crises such as the COVID-19 outbreak, Mehralian and Khazaei (2022) found that having a strong digital marketing strategy can greatly contribute to the success of SMEs. In addition, Briones et al. (2011) found that implementing digital marketing strategies in SMEs can effectively facilitate remote customer engagement, leading to improved business performance. The first hypothesis of this research is based on the description provided above:

*H<sub>1</sub>: Digital marketing affects business performance.*

To remain competitive in today's market, companies invest in both tangible and intangible assets, including intellectual capital and scientific and technological knowledge. This investment is essential for success in an increasingly fierce business environment. It is important to handle intangible assets in a manner that leads to better organizational outcomes. In the present knowledge-driven economy, intellectual capital, as an intangible asset, is increasingly required for a company's long-term profitability and performance. An increasing number of businesses recognize that their primary strengths are intangible assets rather than physical ones (Ekaningrum, 2021). The components of intellectual capital encompass human capital, innovation capital, process capital, and customer capital, indicating that intangible assets become core assets in the knowledge-based resources (Bontis et al., 2000). All of SMEs' knowledge about these four elements will strengthen their ability to create competitive advantage (Ekaningrum, 2021; McDowell et al., 2018; Sahari & Santy, 2019). In addition, according to Koentjoro and Gunawan (2020) organizing knowledge boosts innovation for entrepreneurs because it allows entrepreneurs to expand their capacity for generating ideas, leading to greater opportunities for growth and success. Therefore, the second hypothesis proposed for this study is as follows:

*H<sub>2</sub>: Intellectual capital affects business performance.*

Effective business performance can lead to increased profitability, which can help companies invest in socially responsible ethical practices. By implementing these sustainability practices, companies can revolutionize the recruitment process, accelerate branding, and establish strong public relations. Ultimately, these steps lead to greater profitability and ensure long-term business success. Sustainability can also reduce an organization's environmental impact, increase its social responsibility, and improve its economic sustainability. According to Budiarto, Vivianti, and Diansari (2020) SMEs need to innovate to maintain business sustainability. SMEs with better financial conditions will tend to have better sustainability performance (Lu et al., 2022; Quéré, Nouyrigat, & Baker, 2018). As a result, SMEs must constantly develop and look for opportunities to innovate. Thus, the third hypothesis in this study is:

*H<sub>3</sub>: Business performance affects business sustainability.*

In the industrial era of 4.0, digital marketing can be a valuable tool for companies looking to differentiate themselves from their competitors. Businesses can effectively communicate their unique value proposition by

leveraging online marketing strategies, which can provide better services, lower prices, and establish a better relationship with customers (Chakravarthy, Rani, & Karunakaran, 2022; Lamidi & Rahadhini, 2021; Mehralian & Khazaei, 2022; Obermayer et al., 2022). The use of digital marketing expands the market, reduces sales costs, and can increase buying interest due to the ease of transactions provided (Rahayu, Kusumojanto, Martha, Ningsih, & Hapsari, 2021). Therefore, it can be asserted that the implementation of digital marketing will foster business sustainability. So, it can be said that the use of digital marketing will increase business sustainability due to business growth obtained from digital marketing results. Based on this description, the fourth hypothesis is as follows:

*H<sub>4</sub>: The performance of the business mediates the influence of digital marketing on business sustainability.*

It is widely believed among researchers that intellectuals are a key factor that can significantly impact the performance of SMEs (Gross-Gołacka, Kusterka-Jefmańska, Spałek, & Jefmański, 2021; Jermisittiparsert, 2021; McDowell et al., 2018). This is particularly true because SMEs may face challenges when it comes to competing on the basis of scale and scope. Furthermore, previous research has demonstrated that intellectual capital arises from acquiring, communicating, and codifying knowledge. This leads to increased innovation and the ability to generate value (Gross-Gołacka et al., 2021) and will encourage the creation of business sustainability in the future (Akhtar, Ismail, Ndaliman, Hussain, & Haider, 2015; Kianto, Sáenz, & Aramburu, 2017; Trarintya, Wiagustini, Artini, & Ramantha, 2021). It asserts that intellectual capital, encompassing knowledge and innovation, plays a pivotal role in determining the sustainability and financial performance of a business. Thus, intellectual capital provides business sustainability because it can improve business performance. Based on this description, the fifth hypothesis is as follows:

*H<sub>5</sub>: The performance of the business mediates the influence of intellectual capital on business sustainability.*

The research model is shown in Figure 1:

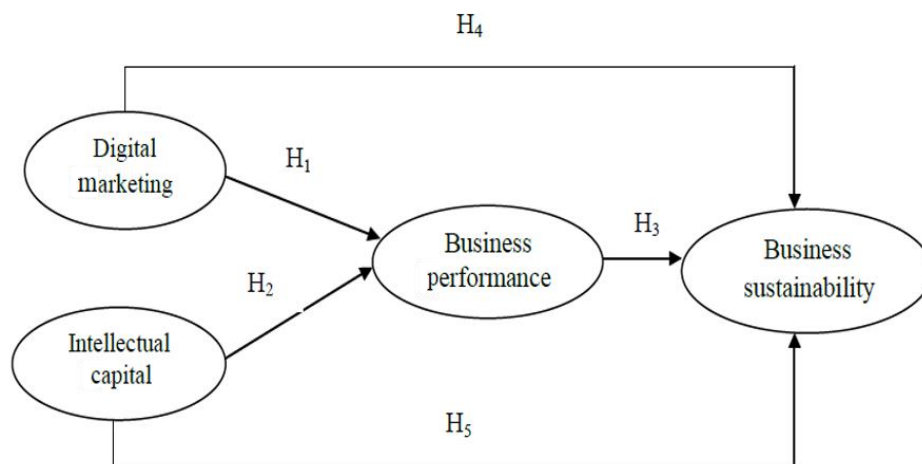


Figure 1. Research model.

Source: Researcher elaboration.

### 3. RESEARCH METHODOLOGY

#### 3.1. Sample and Data Collection

The participants in this study were owners of SMEs in Bandung, who are members of a waste bank community. This study selected SMEs using a purposive sampling method. We determined specific criteria to fit the study design. First, SMEs adopt digital marketing as their business strategy. Second, the business has operated for at least three months. A total of 308 SMEs owners voluntarily participated in this research. Table 1 presents an overview of the respondents' demographics.

Table 1. Respondents' demographics.

Characteristics	Frequency	Percentage
Gender		
• Male	135	44%
• Female	173	56%
Educational background		
• Primary school	10	3%
• Junior high school	35	11%
• Senior high school	187	61%
• University	76	25%
Age		
• 17-22 years	23	7%
• 23-28 years	69	22%
• 29-34 years	54	18%
• 35-40 years	54	18%
• 41-46 years	52	17%
• 47-52 years	27	9%
• Over 53 years	28	9%
• (Blank)	1	0%
Marital status		
• Married	229	74%
• Unmarried	79	26%
The business' age.		
• Less than a year	122	40%
• > 1-5 years	141	46%
• > 5-10 years	36	12%
• > 10-15 years	5	2%
• > 15-20 years	2	1%
• Over than 20 years	2	1%
Business sectors		
• Agriculture	11	3.57%
• Chemical and cosmetics	13	4.22%
• Clothing retails	50	16.23%
• Construction equipment and material	1	0.32%
Electricity and electronics		
• Food and beverage	13	4.22%
• Health and pharmaceutical	107	34.74%
• Home appliance and furniture	1	0.32%
• Tourism	14	4.55%
• Consumer goods	2	0.65%
• Automotive	28	9.09%
• Others	1	0.32%
Total	308	

Table 1 presents the demographic data of the respondents, including gender, educational background, age, marital status, and business age. Based on the data, the majority of respondents were female, constituting 56% of the total participants. In addition, the majority of respondents had a senior high school educational background (61%), followed by 76 respondents (25%) with a university degree. Most respondents were between the ages of 29 and 40. The business sectors of the respondents include agriculture, chemicals and cosmetics, clothing retail, construction equipment, electricity and electronics, food and beverages, health and pharmaceuticals, home appliances and furniture, tourism, consumer goods, and automotive. The majority of the respondents came from the food and beverage sector (34.74%), and their businesses were around 1-5 years old.

The data were collected through surveys. Respondents received online questionnaires directly from the researchers. The researcher prepared a questionnaire that include five sections, each containing questions about the respondents' data, digital marketing adoption, intellectual capital, business performance, and organizational sustainability.

### 3.2. Definition of Operational and Measurement of Variables

Digital marketing is an activity for planning, implementing, distributing, and selling products and services using applications and technological information. Davis (1989) developed an instrument to assess digital marketing implementation. According to this instrument, the technology acceptance model is measured in three dimensions: the perceived ease of utilizing technology for digital marketing, usability perceptions, and the desire to utilize technology. This instrument has been extensively used in prior research, such as Ritz et al. (2019) with Cronbach's Alpha values in the range of 0.789-0.917. Seventeen questions were asked to assess digital marketing adoption; 17 questions were asked. For example, using the Internet to promote your products and services will increase the company's effectiveness in increasing consumer engagement."

Intellectual capital (IC) is a critical asset for organizations, referring to the intangible resources such as knowledge, information, intellectual property, and experience that enable them to create value and generate profits. Although challenging to identify and harness, once a company uncovers and leverages its intellectual capital, it can yield a unique and powerful competitive advantage that can propel it to success (Bontis et al., 2000). Ulum (2017) as cited in Ulum and Fitri Wijayanti (2019) developed three dimensions to measure IC: human capital, structural capital, and customer capital, which. There are 53 questions in this instrument. An example of this could be the following: "The overall competence of employees is the same as an ideal level that we can expect to achieve."

Business performance refers to an organization's capacity to use resources effectively and efficiently in accordance with its specific strategy. In this study, company performance was assessed using the 10-question instrument developed by Ulum and Fitri Wijayanti (2019). For example, "This company's return on assets after tax is good."

According to this study, business sustainability is defined as an organization's initiative that minimizes the influence on the planet's existence and ecosystems in order to achieve sustainable development. Kolk, Hong, and van Dolen (2010) developed an instrument to measure business sustainability. This instrument consists of three dimensions: economic, socio-economic, and environmental, one of which is: "This company reduces emissions in the course of its operations." All questions that were used in this study were graded on a 5-point Likert scale (1: strongly disagree and 5: strongly agree).

### 3.3. Research Procedure

This study used path analysis to test the hypotheses. Path analysis is a statistical method that describes the directed dependencies among variables, enabling the examination of complex models and comparison of different models (Kline, 2015). This study examines the direct and indirect effects of digital marketing and intellectual capital on business sustainability, with business performance as the mediator. Partial least squares (PLS) is one of a kind because it can deal with large amounts of data and a lot of independent variables. It can also handle multicollinearity and model the relationship between the multiple independent variables and a dependent variable (Ringle, Wende, & Becker, 2022). This study included 308 SMEs that voluntarily participated in the questionnaire. SmartPLS is a software tool used for path analysis that allows researchers to conduct sophisticated analyses, estimate complex models, and gain deeper insights into their data. We performed validity and reliability tests before conducting the hypothesis test to ensure the accuracy and consistency of the measuring instruments. Our validity test includes both convergent and discriminant validity tests. By using SmartPLS, we were able to conduct sophisticated analyses and estimate complex models, making this study impactful.

## 4. RESULTS AND ANALYSIS

### 4.1. Outer Model Testing

To validate the outer model test, the following tests are required to execute:

#### 4.1.1. Convergent Validity Test

According to Hair et al. (2022) convergent validity is the extent to which the construct converges to explain the variance of its items. The convergent validity test is measured using the average value of the average extracted variance (AVE), where the AVE value is required to be larger than 0.5, indicating that the latent variable can explain more than 0.5 of the variance value of its indicators. Table 2 shows the results of the convergent validity test. As shown in Table 2, the latent variables used in this study are valid because their AVE value exceeds 0.5.

**Table 2.** AVE's value.

Variables	Average variance extracted (AVE)
Digital marketing	0.788
Intellectual capital	0.613
Business performance	0.67
Sustainability business	0.509

#### 4.1.2. Discriminant Validity Test

The discriminant validity refers to how much empirical difference exists between the constructs within the model (Hair et al., 2022). Based on the Fornell-Larcker criterion, the discriminant validity test value must be greater than 0.7084. Table 3 displays the results of the discriminant validity test in this study. As shown in Table 3, the study variables are valid because the resulting Fornell-Larcker criteria value is more than 0.708.

**Table 3.** Fornell-Larcker criteria.

Variables	Digital marketing	Intellectual capital	Business performance	Sustainability business
Digital marketing	0.888			
Intellectual capital	0.784	0.783		
Business performance	0.607	0.722	0.818	
Sustainability business	0.669	0.752	0.775	0.713

#### 4.1.3. Reliability Test

Cronbach's Alpha and Composite Reliability are two methods employed by Hair et al. (2022) to assess the consistency of internal reliability in PLS. A latent variable was considered reliable if its Cronbach's Alpha and Composite Reliability values were both greater than 0.70. According to Table 4, all latent variables in this study are reliable because Cronbach's Alpha and Composite Reliability values are greater than 0.70.

**Table 4.** Reliability analysis.

Variables	Cronbach's alpha	Composite reliability
Digital marketing	0.973	0.976
Intellectual capital	0.962	0.966
Business performance	0.834	0.89
Sustainability business	0.909	0.922

#### 4.2. Inner Model Test

The outer model test has led to the conclusion that inner model testing is feasible. Inner model testing entails numerous tests, including coefficient of determination ( $R^2$ ) and path coefficient.

##### 4.2.1. Coefficient of Determination ( $R^2$ )

The coefficient of determination describes the extent to which exogenous latent factors impact endogenous latent variables. According to the results, digital marketing and intellectual capital influence business success by 0.522, whereas other factors influence the remaining 0.478. Furthermore, digital marketing and intellectual capital have a total of 0.684 influence on sustainability businesses, with the remaining 0.316 influenced by other factors (see Table 5).

**Table 5.** Coefficient of determination ( $R^2$ ).

Variables	R square	R square adjusted
Business performance	0.525	0.522
Sustainability business	0.687	0.684

##### 4.2.2. Path Coefficient

Table 6's path coefficient results, which show a p-value of 0.134, reject the direct effect of digital marketing on business performance. Thus, the first hypothesis of this study is rejected, implying that digital marketing has no effect on business performance. According to this study, intellectual capital directly affects business performance ( $p = 0.000$ ,  $\alpha = 0.05$ ). This value signifies the acceptance of H2. The third hypothesis attempts to determine the direct relationship between business performance and sustainability. The results showed that H3 was also accepted because the p-value was 0.000 ( $\alpha = 0.05$ ). We conclude that business performance has a positive and significant effect on business sustainability. This study also tested the mediating role of business performance on the relationship between digital marketing and business sustainability (H4). However, the results showed that business performance did not have a significant mediating role in this relationship ( $p = 0.136$ ,  $\alpha = 0.05$ ). Meanwhile, the fifth research hypothesis (H5) suggests that intellectual capital has a significant effect on business sustainability, mediated by business performance. A p-value of 0.000 ( $\alpha = 0.05$ ), indicating that the fifth research hypothesis was accepted.

## 5. DISCUSSION

Based on the data processing results in Table 6, we concluded that digital marketing has no significant effect on business performance (H1 rejected). There are several reasons that could explain this result. Firstly, the use of digital marketing for SMEs may not directly result in immediate sales so that when measuring performance (especially financially), there is no short-term growth (Permana, Poerwoko, Widyastuti, & Rachbini, 2019; Tolstoy, Nordman, & Vu, 2022). However, the use of digital marketing helps SMEs gain brand visibility and credibility, which is crucial for long-term sustainability. Second, digital marketing necessitates knowledge of marketplace requires knowledge of marketplace algorithms. In general, SMEs are limited in human resources with adequate levels of digital literacy (Chakravarthy et al., 2022) to understand how to optimize digital marketing (such as partnerships, or affiliate marketing). As shown in Table 1, the characteristics of the respondents support the finding that digital marketing optimization has not yet provided financial benefits for SMEs that participated in this study. The majority of respondents recently started their businesses, with 122 SMEs operating for less than a year and 141 SMEs for less than five years. Therefore, it is safe to conclude that digital marketing optimization has yet to yield financial benefits for these businesses.

Our study also reveals that intellectual capital directly affects business performance (H2). Intellectual capital encompasses the intangible assets of a business, such as knowledge, skills, experiences, innovations, and relationships. When a small or medium-sized business invests in knowledge and creativity, owners can develop unique products and services, giving them an edge over their competition and attracting new customers (Ekaningrum, 2021; Ngah et al., 2015). In essence, intellectual capital provides a valuable source of sustainable competitive advantage that can result in improved operational efficiency, increased revenue, and enhanced overall performance.

The study supports H3, indicating that business performance significantly contributes to the sustainability of SMEs. Various factors, including revenue growth, profit margins, market effectiveness, customer satisfaction, and employee satisfaction, can measure business performance. SMEs in these areas can significantly contribute to their long-term sustainability and success. Conversely, if these areas do not receive adequate attention, businesses may face a higher risk of failure and closure. Therefore, it is crucial that SMEs focus on improving their business performance to ensure long-term sustainability.

In contrast, the results obtained from this study show that the performance of a business does not have a significant role in mediating the association between digital marketing and business sustainability (H4 is rejected). Evidence strongly suggests that digital marketing might have an independent impact on the sustainability of businesses, regardless of their overall performance. In other words, business performance does not correlate with the positive impact of digital marketing on business sustainability. Therefore, the use of digital marketing might not always translate directly into immediate growth; however, it helps SMEs improve their chances of long-term success. Furthermore, additional variables such as innovation, not included in this analysis, may mediate the association between digital marketing and business sustainability.

**Table 6.** Path coefficient.

Path analysis	Standardized beta	Sample mean (M)	Standard error	T-statistics	P-value	$\alpha$	Decision
Digital marketing $\Rightarrow$ Business performance	0.108	0.107	0.072	1.501	0.134	0.05	H <sub>1</sub> is rejected
Intellectual capital $\Rightarrow$ Business performance	0.637	0.642	0.07	9.035	0.000	0.05	H <sub>2</sub> is accepted
Business performance $\Rightarrow$ Business sustainability	0.47	0.467	0.059	8.021	0.000	0.05	H <sub>3</sub> is accepted.
Digital marketing $\Rightarrow$ Business performance $\Rightarrow$ Business sustainability	0.051	0.05	0.034	1.492	<u>0.136</u>	0.05	H <sub>4</sub> is rejected.
Intellectual capital $\Rightarrow$ Business performance $\Rightarrow$ Sustainability business	0.3	0.3	0.051	5.847	0.000	0.05	H <sub>5</sub> is accepted

Intellectual capital (IC) is crucial to a business's long-term success. It encompasses intangible resources, such as human capital (knowledge, skills, and expertise of employees), structural capital (organizational processes, systems, and intellectual property), and relational capital (relationships with customers, suppliers, and stakeholders), which are difficult to quantify. Replicating Intellectual capital is impossible, making it a unique asset. Harnessing these invaluable resources will help businesses in strategic decision-making and provide a good understanding of the specific situation the company faces. This will inform them and give them the capacity to make effective decisions for long-term success. Furthermore, intellectual capital improves business sustainability by demonstrating efficient resource utilization and goal achievement (H5 is accepted). According to the analysis, the SMEs involved in this study have focused on developing and utilizing their intellectual capital to enhance their overall sustainability.

## 6. CONCLUSION AND FURTHER RESEARCH

Micro, Small, and Medium-sized Enterprises (SMEs) play an important role in promoting sustainability practices. This is because SMEs are relatively agile and have a small scope. This enables them to make changes faster than large companies do. SMEs have limitations that make long-term sustainability difficult. Lack of knowledge and expertise in understanding digital marketing often leads to underutilization of technology in digital marketing. Small businesses are likely to benefit from participating in and developing digital marketing strategies. These benefits are obtained because they can improve operational efficiency by reducing costs and improving innovation and productivity. When business performance is positively perceived, SMEs see the potential and power to implement sustainability practices.

This study found that, although SMEs have used digital marketing, the evaluation of business performance has not shown positive results. This is due to the limited knowledge, experience, and expertise of SMEs, which has prevented them from optimizing digital marketing. This study also found that intellectual capital is an important factor in encouraging business continuity because businesses that prioritize intellectual capital can continuously evolve, introducing new products or services that meet changing customer needs and market trends. Thus, intellectual capital will improve business performance and provide the potential for sustainability in the future. Finally, intellectual capital, as a unique asset that can differentiate one business from another, is also considered an important factor in creating business sustainability.

### 6.1. Implications

This study provides both theoretical and practical insights into the creation of small business sustainability. While prior studies and theories have indicated that digital marketing significantly affects business sustainability and performance, this study highlights an important point: these benefits are not short-term but occur through a mechanism. Organizations should recognize that long-term sustainability requires an overall understanding of the potential of digital strategies, not just their short-term or financial impact. Therefore, future digital marketing studies should examine the potential of these strategies to contribute to the long-term sustainability of a business. Scholars have recognized the crucial role of intellectual capital in driving business performance and sustainability. This study provides important managerial implications for SME owners by highlighting the need to prioritize investments in knowledge creation by providing employee training and promoting innovation. Creating a culture of continuous learning and supporting R&D activities can accomplish this.

### 6.2. Limitations and Future Research Suggestions

This study significantly contributes to the themes of digital marketing and sustainability in SMEs. However, this study had some limitations. The study limited its scope to a small sample of SMEs in Bandung, Indonesia, thereby impeding its generalizability. To address this limitation, future studies should include SMEs from other regions of Indonesia. Additionally, because the data was collected through questionnaires and not verified through interviews, this method of data collection may have limitations. Therefore, future studies should consider using triangulation approaches, including focus group discussions with respondents, to provide better insights and help optimize digital marketing and business performance. Another limitation of this study is that it measured business performance financially. However, business performance is not limited to financial aspects alone but also involves several other factors. Therefore, it is highly recommended that future research should emphasize analyzing other dimensions of performance instead of just financial performance.

**Funding:** This research is supported by Universitas Kristen Maranatha, Bandung, Indonesia (Grant number: 034/SK/ADD/UKM/VI/2021).

**Institutional Review Board Statement:** The Ethical Committee of the Universitas Kristen Maranatha, Indonesia has granted approval for this study on 29 November 2023 (Ref. No. 1182/FB/UKM/XI/2023).

**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** Led the project and oversaw its research design and methodology. Also critically revised the manuscript for important intellectual content, W.B.; conducted the literature review, S.S. and M.S.V.; prepared and designed the questionnaires and ethics. They also collected data using questionnaires, S.Z. and T.B.; conducted statistical analyses, M.S.V.; analyzed and interpreted the results of statistical analyses, S.S. and M.S.V.; drafted the manuscript, T.B. and S.Z. All authors have read and agreed to the published version of the manuscript.

## REFERENCES

- Akhtar, C. S., Ismail, K., Ndaliman, M., Hussain, J., & Haider, M. (2015). Can intellectual capital of SMEs help in their sustainability efforts. *Journal of Management Research*, 7(2), 82. <https://doi.org/10.5296/jmr.v7i2.6930>
- Bontis, N., William Chua Chong, K., & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. *Journal of Intellectual Capital*, 1(1), 85–100. <https://doi.org/10.1108/14691930010324188>
- Briones, R. L., Kuch, B., Liu, B. F., & Jin, Y. (2011). Keeping up with the digital age: How the American red cross uses social media to build relationships. *Public Relations Review*, 37(1), 37–43. <https://doi.org/10.1016/j.pubrev.2010.12.006>
- Bruce, E., Shurong, Z., Ying, D., Yaqi, M., Amoah, J., & Egala, S. B. (2023). The effect of digital marketing adoption on SMEs sustainable growth: Empirical evidence from Ghana. *Sustainability*, 15(6), 4760. <https://doi.org/10.3390/su15064760>
- Budiarto, D. S., Vivianti, E., & Diansari, R. E. (2020). Maintaining the performance and sustainability of MSMEs with e-commerce: Research during the Covid-19 pandemic. *Journal of Economics, Business, and Accountancy Ventura*, 23(3), 414–425. <https://doi.org/10.14414/jebav.v23i3.2463>
- Chakravarthy, B. S., Rani, U., & Karunakaran, K. (2022). Impact of digital marketing in the business performance of e-commerce companies. *Journal of Positive School Psychology*, 2022(4), 6980–6986.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.5962/bhl.title.33621>
- Diliana, F. B., Rafei, Y. D., Safrida, I. N., & Fadillah, I. J. (2019). *Profile of micro and small industries 2019 central statistics agency*. ISSN. 2745–6773. Retrieved from <https://www.bps.go.id/id/publication/2020/11/16/db2fdf158825afb80a113b6a/profil-industri-mikro-dan-kecil-2019.html>
- Ekaningrum, Y. (2021). The influence of intellectual capital elements on company performance. *Journal of Asian Finance, Economics and Business*, 8(1), 257–269. <https://doi.org/10.13106/jafeb.2021.vol8.no1.257>
- Gross-Gołacka, E., Kusterka-Jefmańska, M., Spałek, P., & Jefmański, B. (2021). Perception of intellectual capital and its impact on business sustainability: Evidence from small, medium, and large enterprises. *E a M: Ekonomie a Management*, 24(2), 35–50. <https://doi.org/10.15240/TUL/001/2021-2-003>
- Hair, J., Hult, G., Tomas, M., Ringle, C., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)*: In Sage Publishing (Issue 3). <https://doi.org/10.1007/978-3-030-80519-7>.
- Indonesian Investment. (2022). *Indonesia investments micro, small and medium enterprises in Indonesia*. Retrieved from [www.indonesia-investments.com](http://www.indonesia-investments.com)
- Jermisittiparsert, K. (2021). *Green intellectual capital factors leading to business sustainability*. Paper presented at the E3S Web of Conferences, 277. <https://doi.org/10.1051/e3sconf/202127706009>.
- Kianto, A., Sáenz, J., & Aramburu, N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, 81, 11–20. <https://doi.org/10.1016/j.jbusres.2017.07.018>
- Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). New York: Guilford Press.

- Koentjoro, S., & Gunawan, S. (2020). Managing knowledge, dynamic capabilities, innovative performance, and creating sustainable competitive advantage in family companies: A case study of a family company in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 90. <https://doi.org/10.3390/JOITMC6030090>
- Kolk, A., Hong, P., & van Dolen, W. (2010). Corporate social responsibility in China: An analysis of domestic and foreign retailers' sustainability dimensions. *Business Strategy and the Environment*, 19(5), 289–303. <https://doi.org/10.1002/bse.630>
- Lamidi, L., & Rahadhini, M. (2021). The effect of digital marketing and financial inclusion on business sustainability through marketing performance culinary msme's in Surakarta. *Journal of Economics, Finance and Management Studies*, 4(06), 716–723. <https://doi.org/10.47191/jefms/v4-i6-06>
- Lu, J., Rodenburg, K., Foti, L., & Pegoraro, A. (2022). Are firms with better sustainability performance more resilient during crises? *Business Strategy and the Environment*, 31(7), 3354–3370. <https://doi.org/10.1002/bse.3088>
- McDowell, W. C., Peake, W. O., Coder, L., & Harris, M. L. (2018). Building small firm performance through intellectual capital development: Exploring innovation as the “black box”. *Journal of Business Research*, 88, 321–327. <https://doi.org/10.1016/j.jbusres.2018.01.025>
- Mehralian, M. M., & Khazaei, P. (2022). *Effect of digital marketing on the business performance of MSMEs during the covid-19 pandemic: The mediating role of customer relationship management*. Paper presented at the In 37th Digital Marketing and Customer Behavior Science Conference. <https://doi.org/10.2139/ssrn.4195985>.
- Nakara, W. A., Benmoussa, F. Z., & Jaouen, A. (2012). Entrepreneurship and social media marketing: Evidence from French small business. *International Journal of Entrepreneurship and Small Business*, 16(4), 386–405. <https://doi.org/10.1504/IJESB.2012.047608>
- Ngah, R., Wahab, I. A., & Salleh, Z. (2015). The sustainable competitive advantage of small and medium enterprises (SMEs) with intellectual capital, knowledge management and innovative intelligence: Building a conceptual framework. *Advanced Science Letters*, 21(5), 1325–1328. <https://doi.org/10.1166/asl.2015.6018>
- Obermayer, N., Kővári, E., Leinonen, J., Bak, G., & Valeri, M. (2022). How social media practices shape family business performance: The wine industry case study. *European Management Journal*, 40(3), 360–371. <https://doi.org/10.1016/j.emj.2021.08.003>
- Permana, E., Poerwoko, B. S., Widyastuti, S., & Rachbini, W. (2019). Digital capability and innovation strategy to develop the performance and competitive advantages of fashion smes in Jakarta, Indonesia. *International Journal of Managerial Studies and Research*, 7(11), 5–15. <https://doi.org/10.20431/2349-0349.0711002>
- Permatasari, P., & Gunawan, J. (2023). Sustainability policies for small medium enterprises: WHO are the actors? *Cleaner and Responsible Consumption*, 9, 100122.
- Quéré, B. P., Nouyrgat, G., & Baker, C. R. (2018). A bi-directional examination of the relationship between corporate social responsibility ratings and company financial performance in the european context. *Journal of Business Ethics*, 148(3), 527–544. <https://doi.org/10.1007/s10551-015-2998-1>
- Rahayu, W. P., Kusumojanto, D. D., Martha, J. A., Ningsih, G., & Hapsari, N. T. (2021). The role of digital marketing, innovation, self-efficacy in business sustainability at the rengginang industrial centre in the new normal. *International Journal of Business, Economics and Law*, 24(6), 88–95.
- Ringle, C. M., Wende, S., & Becker, J.-M. (2022). *SmartPLS 4. oststeinbek: SmartPLS*. Retrieved from <https://www.smartpls.com>
- Ritz, W., Wolf, M., & McQuitty, S. (2019). Digital marketing adoption and success for small businesses: The application of the do-it-yourself and technology acceptance models. *Journal of Research in Interactive Marketing*, 13(2), 179–203. <https://doi.org/10.1108/JRIM-04-2018-0062>
- Sahari, S., & Santy, M. B. (2019). The identification of Indonesia and Malaysia company performance based on intellectual capital. *Asian Economic and Financial Review*, 9(10), 1171–1183. <https://doi.org/10.18488/journal.aefr.2019.910.1171.1183>

- Tolstoy, D., Nordman, E. R., & Vu, U. (2022). The indirect effect of online marketing capabilities on the international performance of e-commerce SMEs. *International Business Review*, 31(3), 101946. <https://doi.org/10.1016/j.ibusrev.2021.101946>
- Trarintya, M. A. P., Wiagustini, N. L. P., Artini, L. S., & Ramantha, I. W. (2021). Intellectual capital on cultural sustainability practices in microfinance at Bali. *Academy of Strategic Management Journal*, 20(1), 1-19.
- Ulum, I., & Fitri Wijayanti, P. (2019). Intellectual capital disclosure of Muhammadiyah Universities: Evidence from 4ICU 2018. *Journal of Accounting and Investment*, 20(1). <https://doi.org/10.18196/jai.2001113>

*Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Management and Sustainability shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.*