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## Article

# The impact of social media marketing for Indonesian SMEs sustainability: Lesson from Covid-19 pandemic

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## MARKETING | RESEARCH ARTICLE

# The impact of social media marketing for Indonesian SMEs sustainability: Lesson from Covid-19 pandemic

Tundung Subali Patma<sup>1\*</sup>, Ludi Wishnu Wardana<sup>2</sup>, Agus Wibowo<sup>3</sup>, Bagus Shandy Narmaditya<sup>2</sup> and Farida Akbarina<sup>1</sup>

**Abstract:** The Covid-19 pandemic has imposed the government to provide a mass restriction policy, and businesses respond to this issue by adopting technology and social media marketing. This study aims at highlighting the determinant factors affecting technology adoption, social media marketing, and business sustainability. The study involved a quantitative approach with partial least squares structural equation modeling to obtain a deep understanding of this phenomenon. The research was incorporated with small and businesses in East Java Provincial in Indonesia employing an online questionnaire. The findings show that the adoption of internet/e-business technology can be explained by perceived usefulness, perceived ease of use, and cost. Furthermore, it has a link between internet/e-business technology, social media marketing, and SMEs' sustainability. However, the cost variable failed in demonstrating the implementation of social media marketing by SMEs. This work strongly suggests that the adoption of internet/e-business technology and social media marketing successfully explains the mediating role between variables. Despite this work solely conducted in East Java, this research is the initial phase in a study associated with SMEs' sustainability in the Covid-19 pandemic in Indonesia.

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Tundung Subali Patma is an associate professor specializing in Business Marketing at Politeknik Negeri Malang, Indonesia. Ludi Wishnu Wardana is an associate professor at Universitas Negeri Malang, concerning on entrepreneurship and entrepreneurial education. Agus Wibowo is an assistant professor of entrepreneurship at Faculty of Economics Universitas Negeri Jakarta, Indonesia. Bagus Shandy Narmaditya is a lecturer at the Economic Education Program, Faculty of Economics, Universitas Negeri Malang, Indonesia. Farida Akbarina is an assistant professor of Business Marketing at Politeknik Negeri Malang, Indonesia.

## PUBLIC INTEREST STATEMENT

Implementing a mass restriction policy as its impact of the Covid-19 pandemic has shifted the marketing model from conventional to online using technology. The need to achieve business sustainability is increasingly compelling by ideas to be more proactive in using social media marketing. This study highlights how perceived usefulness, ease of use, and cost drive internet/e-business adoption, social media marketing, and small and medium business (SMEs) sustainability. This investigation is essential to provide new insights regarding adopting information and communication technology in Indonesia SMEs' sustainability. The findings indicate that the adoption of new business technology and social media marketing can be explained by perceived usefulness, perceived ease of use and cost. This study also shows the nexus between internet/e-business technology, social media marketing and SMEs' sustainability.

**Subjects: Management of Technology & Innovation; Entrepreneurship and Small Business Management; Marketing**

**Keywords: Perceived usefulness; Perceived ease of use; Cost; Adoption of IEBT; Social Media Marketing; SMEs' Sustainability**

## 1. Introduction

The coronavirus disease (Covid-19) pandemic has outspread throughout the world, and it has significantly impacted the economic sector (Fendel et al., 2020; Rebucci et al., 2020). From a macroeconomic perspective, the Covid-19 has impacted a downtrend in economic growth, aggregate consumption, investment, and balance payments (Fang et al., 2021). Meanwhile, from the microeconomic sides, the Covid-19 pandemic has diminished individuals' consumption and purchasing power due to many people losing their income and jobs (Dang & Nguyen, 2021). Additionally, the majority of people are careful in controlling their financial expenditure due to the vague during the pandemic (Celik et al., 2020).

In the Indonesian context, the Covid-19 pandemic has also hampered small and medium business scale (SMEs) performance in their production, market, and revenue (Srikalimah et al., 2020). Despite the 1998 crisis, SMEs were more adaptable than large companies (Juergensen et al., 2020), but the Covid-19 pandemic became a severe external shock and affected the supply and demand side, primarily during the implementation of health distancing policy (Fitriasari, 2020). This condition highlights that the Covid-19 crisis will affect SMEs' sustainability (Juergensen et al., 2020). Therefore, business owners need to respond quickly and appropriately by changing their sales strategy (Lorentz et al., 2016). To deal with this, SMEs can elaborate on the use of technology and empower social media (Dwivedi et al., 2021).

Several preliminary works have documented the importance of social media in improving SMEs' sustainability (Kang & Park, 2018; Taneja & Toombs, 2014). Social media is not only effective in helping SMEs' business growth (Dahnil et al., 2014), but also as a consumer media to easily access new products, services, and SMEs' (Dženopoljac et al., 2016). Social media is also a means for people to be engaged in online activities, market and even become an effective comparison in decision making (Chatterjee & Kumar Kar, 2020). In addition, social media has become a kind of bridge between SMEs' and the potential consumer community (Abed et al., 2015). In short, Tripopsakul (2018) noted that effective use of social media can enhance productivity and business revenue.

However, the technology transformation in the business confronts a new budget allocation for a business. Chatterjee and Kumar Kar (2020) revealed that a budget is required to involve marketing and understand how each platform works. As a consequence, the new model marketing and technology adoption requires an additional cost to be involved in their business. In the involvement of marketing technology using social media and the adoption of IEBT, it will refer to the technology acceptance model (TAM) (Davis, 1989) and is robustly generated by perceived usefulness (PEU) and perceived ease of use (PEOU). SMEs who have experienced the utility PEU, PEOU, social media marketing (SMM) and technology adoption (IEBT) will not feel high allocating costs for procurement and maintenance and have a positive impact on SMEs' sustainability.

To summarize, this study is purposed to examine the determinant dimension affecting the use of social media marketing. This investigation is essential to provide new insights regarding the adoption of information and communication technology (ICT) in Indonesia SMEs' sustainability. We also holistically identified the factors that may impact SMEs' sustainability and instruments that play a role in their development. We have admitted that several studies mentioning the level of e-commerce approval in developing nations are still inadequate (Makiwa & Steyn, 2020). In Indonesia, these are affected by several critical factors, including erudite resources, awareness, information sources, and may the complexity of using e-commerce (Rahayu & Day, 2017).

This study provides three main contributions. First, it provides a contribution to the literature by highlighting what factors are affecting the technology adoption and SMM during the Covid-19 pandemic. Second, this study also attempts to link between technology adoption in SMEs, social media marketing, and SMEs sustainability in Indonesia that are absent in the preliminary studies. Some of the preliminary studies, for instance, Chatterjee and Kumar Kar (2020), A. Q. H. Chung et al. (2017), and Elbanna et al. (2019), have not discussed the relationship between SMEs' sustainability and PEU, PEOU, and Cost. This research provides a deeper understanding of SMEs' development and the importance of adopting internet/e-business technologies (IEBT) and SMM. Third, this study in Indonesia and the Covid-19 pandemic is unique due to the massive transformation from conventional to technology adoption and social media marketing as an effort to sustain their business.

This paper is presented as follows: Section 1 concerns the background of the study and followed the relevant literature in Section 2. Next, we provide the study design, data collection, and measurement development in Section 3. Then, the findings and discussion of the study are presented in Section 4 and Section 5, respectively. Finally, section 6 informs the conclusion, managerial implication, and study's limitations.

## 2. Theoretical review and hypotheses

### 2.1. Perceived of usefulness (PEU)

The perceived usefulness (PEU) occurs in the Technology Acceptance Model (TAM), which is promoted by Davis (1989) and Davis et al. (1989) as the theoretical framework to envisage user acceptance of technology. PEU can be realized when SMEs believe that the involvement of a quality management system will help them promote achievement (Davis, 1989; Davis et al., 1989). Furthermore, when SMEs look at the benefit of using Social Media Marketing (SMM) to lead to better productivity, there is no doubt that they will adopt this method in their business (Kraus, Gast, Schleich, Jones, Ritter et al., 2019). Previous studies by Chatterjee and Kumar Kar (2020); Qalati et al. (2021) found that utilizing SMM will promote the SMEs' performance. Several preliminary works have also highlighted the significant association of PEU with users' intentions to engage in new technologies (Akinwale & Kyari, 2020). Recent studies confirmed that the use of social media through the PEU smartphone device has linear connectivity with the adoption of mobile phone technology (Chatterjee & Kumar Kar, 2020; Kim & Chiu, 2019). Thus, the hypotheses are presented as follows:

**H<sub>1</sub>:** PEU has a positive impact on adoption of IEBT

**H<sub>2</sub>:** PEU has a positive impact on social media marketing

### 2.2. Perceived ease of use (PEOU)

The perceived ease of use (PEOU) framework developed by Davis (1989) and Davis et al. (1989) that has been widely used to understand the adoption of new technology in business and other relevant areas. Some literature believes that perceived ease to use has been linked with the adoption of the internet/e-business technology (Taherdoost, 2018; Tripopsakul, 2018). The underlying rationale is that the anxiety in using new technology drives new users to avoid, while the friendly use of new technology will provide many advantages for the users (Momani & Jamous, 2017). In the business context, entrepreneurs are more likely to adopt new technology when essential for enterprise development and easily implemented (Ojo et al., 2019). The effective use of technology in terms of social media can perform a better accomplishment and revenue. This makes SMEs involve and attempt social media to run the business (Sunday & Vera, 2018). With this condition, innovation is more accessible for users to implement, which results in users being motivated to adopt the technology (Bankole & Bankole, 2017). We believe that PEOU positively drives with the exert of new technology. This belief is supported by previous studies by Chatterjee

and Kumar Kar (2020) and Kraus et al. (2019), who documented this relationship. Therefore, the hypotheses are provided as follows:

**H<sub>3</sub>:** PEOU has a positive impact on Adoption of IEBT

**H<sub>4</sub>:** PEOU has a positive impact on Social Media Marketing

### **2.3. Cost (COS)**

In economics, the value of the sacrifice that has been made by an economic actor is well-known as a cost. Therefore, all costs associated with a production process should be considered and described in planning the selling price of a product (Teece, 2019). Trade-offs between advantages and opportunities are determined to assess costs (Sculpher et al., 2017). Costs are required to utilize technology by SMEs for their growth (Chittenden & Ambler, 2015). The nexus between cost and technology adoption is often perceived as being value-relevant (Alam & Noor, 2009). Furthermore, insufficient participation constraints, affordable costs, and inadequate levels of IT skills requirements motivate SMEs to adopt quality management systems. In particular, SMEs in Indonesia will not involve SMM when the initial costs are expensive (Derham et al., 2016). This needs to provide space for SMEs to connect with their buyers in such circumstances at an affordable cost (Zhang et al., 2019). A preliminary work by Cassetta et al. (2020) mentioned that engaged adoption of e-business information and communication technology (ICT) in a business company showed that companies investing in various platforms of ICT have a greater placement towards e-business, while the company cites handicaps in linked with cost and delivery acquaintance with lower e-business involvement. Additionally, Orouji and Kafashan (2017) remarked that companies with many advantages over time report, including providing affordable costs and reaching new customers, tend to have higher e-business operations.

**H<sub>5</sub>:** Cost has a positive influence toward the adoption of IEBT

**H<sub>6</sub>:** Cost a positive influence toward the SMM

### **2.4. The adoption of internet/e-business technologies (IEBT)**

The adoption of innovation by SMEs is associated with various factors, especially organization, environment, and technology (Ifinedo, 2011). The technology–organization–environment (TOE) blend concept is an incorporative program that combines technological dimensions, conditional organizational elements, and macro-environmental factors (Dwivedi et al., 2020; Chiambaretto et al., 2020). SMEs recognize that innovation takes an important role and increases the advantages of current practices and systems. Consequently, it is forecasted that the engagement of Internet technology and e-business will promote a greater performance (Ifinedo, 2011). Indirect and direct benefits from implementing IEBT can be seen in maximizing existing resources, which can impact profits. Several preliminary studies by Abd Rahman et al. (2017) and Müller and Voigt (2018) have demonstrated that comparable benefit is a robust predictor of IEBT and associated technology in SMEs. In particular, SMEs' acceptance of IEBT is seen from an alteration viewpoint.

**H<sub>7</sub>:** Adoption of IEBT positively influences on SMM

**H<sub>8</sub>:** Adoption of IEBT positively influences on SMEs' sustainability.

### **2.5. Social media marketing (SMM) and SMEs' sustainability**

Social presence theory is described as the extent of the importance of other people in interactions and the resultant of interpersonal association (Ahmad et al., 2018). SMM can be regarded as a new



section and business practice engaged with promotion stuff, services, and ideas through the latest social media (Dwivedi et al., 2020). Marketing activities undergoing online platforms enable the production of information and connections between members (Yadav & Rahman, 2017) and the use of smartphone and web-based technology to establish synergistic media in which customers and group members share, co-create, discuss, and modify is known as content (Dewnarain et al., 2019). The exploitation of customers generated content has enabled businesses to more accurately predict the future buying behavior of their customers (A. J. Kim & Ko, 2012), increased the popularity of brand posts (Kervin et al., 2012), attracted new customers (Chow & Shi, 2015), establish awareness, enhance sales and promote loyalty (Castronovo & Huang, 2012).

In total, 90% of businesses worldwide is categorized as SMEs and have been reported responsible for approximately 70% of global pollution (Singh & Thakar, 2018). However, the literature on sustainable development and corporate innovation concerns primarily on a sizeable scale, such as multinational ventures, while the sustainability diversion endeavored by SMEs is inadequately recognized and documented (Li et al., 2020). Large companies are considered to have an adequate endowment for green motivation, while small- and medium-sized businesses are more likely to face financial issues, human and resource management to support sustainability. A preliminary study by Barbosa et al. (2020) mentioned that small business is confronted to conceptual understanding and equipment to assess and organize environmental results, assuming that sustainability calculates additional costs.

Sustainability can be provided as a facet that helps in serving, saving, and maintaining three main accepted elements, such as the environment, community, and the economy (Garbie, 2014). Sustainability enables organizations or companies to gain a competitive advantage in their business (Luthra et al., 2015). Additionally, Raut et al. (2019) pointed out that the application of sustainable operations management (SOM) positively influences companies' business performance and minimizes side effects on the community and the environment. Gotschol et al. (2014) added that the internal activities in companies have a robust correlation with economic, environmental, social performance, and advantages for the organization in the long term. Companies should contemplate the green issue as an effort in reaching a competitive advantage and enhancing market share today in which highly erudite buyers tend to choose eco-friendly stuff (Deif, 2011). Social sustainability activities allow companies to reach a better social reputation (Marshall et al., 2015). For this reason, it can be concluded that sustainability is crucial for organizational activities, which is promoted through the SOM approach (Shibin et al., 2018).

**H<sub>9</sub>:** Social media marketing has a positive impact on SMEs' sustainability

### 3. Methodology

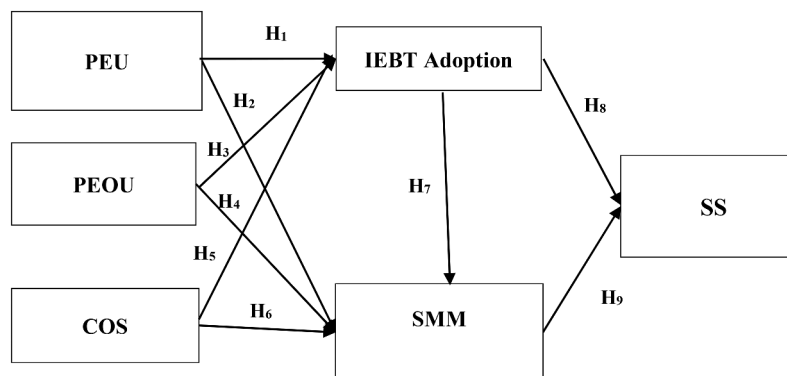
#### 3.1. Research design

We adopted a quantitative approach with partial least squares structural equation modeling (PLS-SEM) to increase understanding of how support for perceived usefulness (PEU), perceived ease of use (PEOU), and cost (COS) for SMEs' Sustainability, and investigating the mediating role of the involvement of IEBT and Social Media Marketing (SMM) (see Figure 1).

#### 3.2. Participants and data collection

The respondents were identified who owned small business scale (SMEs) in Malang, East Java of Indonesia. We proposed 130 questionnaires employing the Google forms platform, which are provided to respondents via WhatsApp and Telegram. We noted that seven questionnaires returned were invalid due to the invalid data provided. This research was conducted from July to September 2020. The participants in this study were asked for their anonymity to ensure ethical issues. The details of respondents are informed in Table 1.

**Figure 1. The research framework.**



**Table 1. The characteristics of respondents**

Categorical		Frequency	%
Gender	Female	43	35
	Male	80	65
Business area	Restaurant	59	48
	Service	44	36
	Fashion	20	16
Business experience	> 10 years	29	24
	7–9 years	18	15
	4–6 years	29	24
	1–3 years	29	24
	< 2 years	18	15
Educational Level	Senior High School	61	50
	Diploma	13	11
	Bachelor degree	33	27
	Postgraduate degree	9	7
	Certificate level	7	6
Number of employees	1–4	94	76
	5–19	26	21
	20–99	3	2
Average Revenue	≤ 100 million IDR	81	66
	> 100–200 million IDR	25	20
	> 200–300 million IDR	15	12
	> 300 million IDR	2	2

Appendix Table A1 provides information about the respondents involved in this study. In general, the majority of respondents operates in micro-scale businesses, while a small percentage performs in medium-scale businesses with various working experiences. From the table, it can be seen that the educational background of respondents was graduates from senior high school with a percentage of 50%. Most of the participants were running the restaurant business and the average income was under 100 million IDR per year.



### 3.3. Instrument development and data analysis

We adopted a survey method to attain an understanding of the existing phenomenon of SMEs in Indonesia in using social media marketing and SMEs' sustainability. The instruments used in this study were adapted from previous studies and literature reviews (see Table A1). The questionnaires were translated from English to Bahasa Indonesia with slight modification to adjust with the Indonesian context. First, perceived usefulness (PEU) was measured by five items from Chung et al. (2020) and Elbanna et al. (2019), while for perceived ease of use (PEOU), it was adopted by Ware (2018) and Rana et al. (2019). To estimate cost (COS), this study formulated five items from S. Chung et al. (2020) and Zhang et al. (2019) and the adoption of internet business technology (IEBT) was adapted by Chong and Pervan (2007) and Ifinedo (2011). Additionally, to measure social media marketing (SMM), we elaborated three indicators from Shareef et al. (2018); (2019). Lastly, SMEs' sustainability (SS) used five items from Elbanna et al. (2019); Chatterjee and Kumar Kar (2020). The questions asked participants to rate how strongly they agreed with each statement from 1 (strongly disagree) and 5 (strongly agree). The data analysis approach in this work operated partial least squares structural equation modeling (PLS-SEM) with Smart PLS (version 3.0).

## 4. Results and discussion

### 4.1. The outer model evaluation

The initial phase in determining the outer model of partial least square (PLS) aims to confirm that the instruments used are reliable. The criteria to determine the model achieve reliability when composite reliability (CR) and Cronbach's Alpha are higher than 0.05 (Hair et al., 2014). This study found that the CR value of each construct ranges from 0.797 to 0.951, meaning that to achieve reliability (see Table 2). Additionally, the indicator to perform the convergent validity is accomplished when the average variance extracted (AVE) is greater than 0.60 (Hair et al., 2014). From the calculation that has been provided in Table 2, several indicators, including PEU3, PEOU1, PEOU2, COS3, and IEBT4 need to be omitted, considering the item loading is smaller than 0.7. After the expulsion, all items were above 0.6, and the AVE value for each construct ranged from 0.645 to 0.866 (>0.5), implicating to achieve the convergent validity.

In addition to convergent validity evaluation, this study also conducted the discriminant validity using cross-loading factors. Table 3 informs that the value of cross-loading for all variables (PEU, PEOU, IEBT, SMM, and SS) is higher than 0.70, showing that the variables to meet the discriminant validity criteria.

### 4.2. Collinearity test

The collinearity test is intended to know the existing collinearity among variables studied, which is proxied through Variance Inflation Factor (VIF). The criteria to consider accomplish the collinearity test when the VIF value is less than 5.00 (Hair et al., 2013). From the preliminary evaluation, all variables involved have the VIF coefficient score ranging from 1.138 to 3.664 (< 5.00), meaning that there is no collinearity among construct variables and decided to be valid.

#### 4.2.1. Hypothesis testing

We provided structural equation modeling to test hypothesis in the model. The *t*-statistic was proposed undergoing the bootstrap, and we presented all data using 500 bootstrapped samples. As illustrated in Table 4, the eight hypotheses proposed in this study have achieved the criteria since the range of *t*-values for each relationship is 2.238–6.649 (>1.96). However, one hypothesis was rejected, considering the *t*-value is 0.290 (see Figure 2).

#### 4.2.2. Model fit

*R*-square ( $R^2$ ) model shows the accuracy of the model prediction (Hair et al., 2020).  $R^2$  values that fall at or higher than 0.75 are determined as substantial, 0.50 and 0.25 are categorized as moderate and weak, respectively (Hair et al., 2014). The calculation indicates that PEU, PEOU, and COST account for 49.6% of the IEBT variant, with moderate predictability. Meanwhile, PEU,

**Table 2. Calculation of Outer Model**

Construct	Item	$\lambda$	$\alpha$	CR	AVE
Perceived usefulness (PEU)	PEU1	0.789	0.872	0.886	0.723
	PEU2	0.896			
	PEU4	0.883			
	PEU5	0.830			
Perceived ease of use (PEOU)	PEOU3	0.833	0.776	0.869	0.688
	PEOU4	0.786			
	PEOU5	0.868			
Cost (COS)	COS1	0.840	0.783	0.873	0.696
	COS2	0.818			
	COS4	0.845			
Adoption of IEBT (IEBT)	IEBT1	0.732	0.731	0.797	0.668
	IEBT2	0.777			
	IEBT4	0.843			
	IEBT1	0.732			
Social Media Marketing (SMM)	SMM1	0.936	0.923	0.951	0.866
	SMM2	0.924			
	SMM3	0.932			
SMEs' Sustainability (SS)	SS1	0.767	0.863	0.900	0.645
	SS2	0.869			
	SS3	0.852			
	SS4	0.740			
	SS5	0.780			

PEOU, COST, and IEBT explained 61.9% of the SMM variants with a moderate level of predictability. Likewise, PEU, PEOU, COST, IEBT, and SMM explained 53.6% of the SMM variants with a moderate level of predictability. Furthermore, the  $f^2$  was conducted to understand whether exogenous constructs have a substantive influence on endogenous constructs. Referring to Hair et al. (2014),  $f^2$  values 0.02, 0.15, and 0.35, respectively, represent the small, medium, and large effects of exogenous constructs on endogenous constructs. Specifically, the size effects of PEU, PEOU, and COST on IEBT had a large effect ( $f^2$  value was 0.978). Furthermore, the effect sizes of PEU, PEOU, COST, and IEBT on SMM had a large effect ( $f^2$  value was 0.381). Lastly, the size of the IEBT and SMM on SS was categorized as moderate ( $f^2$  value 0.321).

#### 4.3. Discussions

The finding of this current work answered nine hypotheses. In the beginning, the study confirmed the connectivity between PEU and the adoption of IEBT with the  $p$ -value of 0.000 ( $<0.05$ ) and the  $t$ -value of 5.093 ( $>1.96$ ). Accordingly, PEU also has an impact on SMM with the  $p$ -value of 0.000 ( $<0.05$ ) and the  $t$ -value of 3.656 ( $>1.96$ ). This result may be performed by the fact that the majority of SMEs are familiar with how to engage social media for business, and it has been considered a valuable tool for marketing purposes. Additionally, social media increases business productivity, helps with better query management, and promotes customer satisfaction. The results of the study reinforce the findings of prior works by S. Chung et al. (2020); Elbanna et al. (2019); Chatterjee and Kumar Kar (2020). In terms of the adoption of IEBT, SMEs have employed internet-based e-commerce or e-payment for their transactions. SMEs have also assimilated internet-based for their critical operations and business activities in SMEs requiring a high IEBT. The results of the study confirm the preliminary studies by Chong and Pervan (2007) and Ifinedo (2011), who remarked that SMM helped in terms of promotions and product services from SMEs. Several

**Table 3. Discriminant Validity**

Construct	COS	IEBT	PEOU	PEU	SMM	SS
COS	0.834					
IEBT	0.776	0.754				
PEOU	0.731	0.780	0.830			
PEU	0.726	0.728	0.740	0.851		
SMM	0.767	0.724	0.729	0.737	0.931	
SS	0.738	0.791	0.775	0.845	0.667	0.803

**Table 4. The Hypotheses Testing**

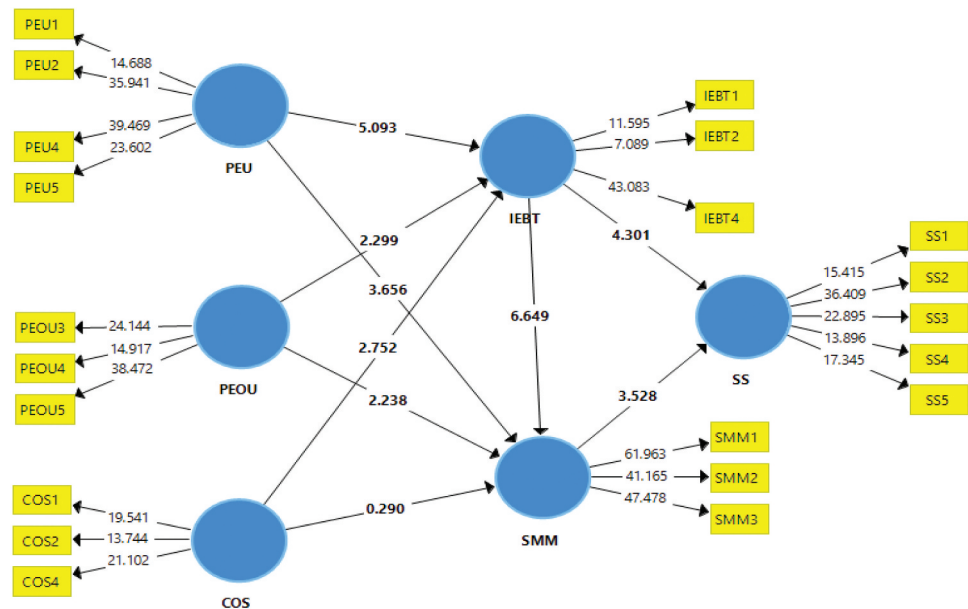
Hypotheses	Relationship	T-value	P-values	Decision
H <sub>1</sub>	PEU → IEBT	5.093	0.000	Confirmed
H <sub>2</sub>	PEU → SMM	3.656	0.000	Confirmed
H <sub>3</sub>	PEOU → IEBT	2.299	0.022	Confirmed
H <sub>4</sub>	PEOU → SMM	2.238	0.026	Confirmed
H <sub>5</sub>	COS → IEBT	2.752	0.006	Confirmed
H <sub>6</sub>	COS → SMM	0.290	0.772	Declined
H <sub>7</sub>	IEBT → SMM	6.649	0.000	Confirmed
H <sub>8</sub>	IEBT → SS	4.301	0.000	Confirmed
H <sub>9</sub>	SMM → SS	3.528	0.000	Confirmed

competitors have used social media for marketing, it has imperative to actively use social media. Employing SMM techniques is great for SMEs' businesses (Shareef et al., 2018, 2019).

With respect to the first and second hypotheses, we found that PEOU robustly impacts the adoption of IEBT and SMM with a *p*-value of 0.022, 0.026, and *t*-value of 2.299, 2.238, respectively. The fundamental rationale is that SMM offers a preface and menu to be used. SMEs are also effortless to recognize new customers undergoing social media because it has already been used for their daily activities. The findings explained that social media provides information needed about customers, and it is unchallenging to advertise goods and services on social media platforms. The findings of the survey support the preliminary works by Ware (2018), Rana et al. (2019), and Chatterjee and Kumar Kar (2020). The fifth hypothesis mentioned that there is positive connectivity between costs on the adoption of IEBT. The data estimation indicated that the *p*-value was 0.006 (<0.05) and the *t*-value was 2.752 (>1.96), implicating that the cost has a significant effect on the adoption of IEBT. The results of this study are logical due to the fact that SMEs consider that the cost of handling customer inquiries has been reduced by using SMM. The cost of identifying new customers has been reduced through the use of quality management services. Customer awareness and training costs have been reduced with the use of quality management services. The overall cost of advertising and promotion has diminished undergoing quality management services. Likewise, the cost of SMEs for handling customer inquiries has been reduced by using quality management services. The findings of the study confirm the findings made by S. Chung et al. (2020), Zhang et al. (2019), and Chatterjee and Kumar Kar (2020).

The surprise finding showed that costs failed to affect the SMM. The difference in our findings needs to be provided in this study context. Due to the increasing technology, SMM does not require high costs due to internet data packages from several cellular operators, which are also easier than competitive. Almost all SMEs involved in this study already use Android or iOS-based phones

**Figure 2. The structural equation modelling calculation.**



to already have a social media application on their smartphones. WhatsApp, Facebook, Instagram, and Telegram are getting familiar with their use. Some of the SMEs have a website, and the use of email facilities is not optimal. In this digital age, business competition is very high, making business people have to follow the development of marketing media, which is currently a trend. At the same time, their competitors use social media for marketing, so they have to be very active as well. The involvement of social media marketing techniques is appropriate for SMEs' businesses that are perceived to have lower costs than conventional marketing. The results of this research decline the prior works of S. Chung et al. (2020), Zhang et al. (2019), and Chatterjee and Kumar Kar (2020). It is important for SMEs to take benefit of the existence of social media to improve the sales performance of their products. By utilizing social media, barriers to distance, space, and time, as well as prices of goods can be eliminated. In addition, SMEs no longer need a large space to display their products. Distance is also not an obstacle to sending goods because there are many courier services companies at affordable prices and quickly reach consumers (Ahmad et al., 2018; Jacobson et al., 2020; Odoom et al., 2017).

In addition, the study confirmed the influence of the IEBT adoption on SMM with the  $p$ -value of 0.000 and  $t$ -value of 6.649. Indeed, this research also showed the positive effect of the Adoption of IEBT on SMEs' sustainability. The SMEs involved in this research have a condition that the adoption of IEBT has a robust effect on Social Media Marketing. The fundamental reason is that the IEBT has been adopted appropriately by SMEs in their marketing, payment, and business transactions. The number of operations and business activities in their company that require IEBT is high. This finding supports some preliminary studies by Chong and Pervan (2007); Ifinedo (2011). Currently, with this SMM, SMEs began to promote their goods and services through social media, which they felt was helpful for getting more profit in their business.

The last finding indicated the influence of SMM on SMEs' sustainability. A possible explanation for these results may be the SMEs' performance has increased after using social media platforms. The daily sales turnover is also above average compared to other SMEs whose marketing is not using social media platforms. The customers who have used social media platforms are more easily connected in conveying marketing information, and orders can be made with a personal message.

The efficiency of identifying customer needs has been improved by using quality management services. Employees' creativity has been improved through the use of SMM because they have to update their status in marketing their products. This finding supports the findings by Elbanna et al. (2019); Chatterjee and Kumar Kar (2020).

## 5. Conclusion

This study highlights how perceived usefulness, perceived ease of use, and cost drive internet/e-business adoption, social media marketing, and SMEs' sustainability. This study indicates that the adoption of new business technology and social media marketing can be explained by perceived usefulness and ease to use of users, while cost variable has an impact on technological adoption, but it does not link with social media marketing. The paper also confirms a robust correlation between the internet/e-business adoption, social media marketing, and SMEs' sustainability in Indonesia. The research has both practical and academic implications. First, this research provides valuable input for SMEs in both developing and developed countries to further increase their knowledge and skills in terms of digital-based marketing. Second, it highlights the importance of social media marketing in responding to world-changing. Therefore, the collaboration between universities and SMEs through a community services scheme to provide workshops and to mentor SMEs is suggested to maximize social media for marketing. The government needs to provide easy access for capital to SMEs. Third, it needs to provide a digital marketplace for the information and promotion of SMEs. Lastly, the Department of Industry and Trade can serve with practical activities primarily on marketing to have a greater market using social media marketing. This study suggests that the marketing model be changed from conventional to social media-based marketing. Also, training for SMEs for adopting social media marketing is essential to boost their sales. The government can take a role in providing this training and present the infrastructure that supports social media-based marketing models. When these two strategies are implemented, this can be used not only during the Covid-19 pandemic but for global competition. The main limitation is that the geographical setting solely involved SMEs in East Java of Indonesia and involved 123 participants. For this reason, future scholars can elaborate on the small business scale in entire Indonesia to obtain more comprehensive characteristics and factors supporting sustainability. This research can be an initial study for scholars linked with SMEs' sustainability, primarily in the Indonesian context.

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## Appendix

Table A1. Indicator of Each Variable		
	Variable	Source
1	Perceived usefulness (PEU)	A. Q. H. Chung et al., 2017; Elbanna et al., 2019; Chatterjee & Kumar Kar, 2020
PEU1	Social media is useful for business	
PEU2	Social media is a valuable tool for marketing	
PEU3	Social media enhances the productivity of the business	
PEU4	Social media helps better query management	
PEU5	Social media helps more customer satisfaction	
2	Perceived ease of use (PEOU)	Ware, 2018; Rana et al., 2019; Chatterjee & Kumar Kar, 2020
PEOU1	Overall, it is easy to learn social media marketing	
PEOU2	It is easy to identify new customers using social media	
PEOU3	It is easy to identify customer demand using social media	
PEOU4	Information retrieval about a customer is easy using social media	
PEOU5	Advertising products and services on social media platforms are easy	
3	Cost (COS)	A. Q. H. Chung et al., 2017; Zhang et al., 2019; Chatterjee & Kumar Kar, 2020
COS1	My cost of dealing with customer enquiries has been reduced using SMM	
COS2	Cost of identifying new customer has been reduced through use of SMM Customer awareness and training cost have been diminished by use of SMM	
COS3	The overall advertising and promotion cost have gone down using SMM	
COS4	My cost of dealing with customer enquiries has been reduced using SMM	
4	Adoption of IEBT	Chong & Pervan, 2007; Ifinedo, 2011
IEBT1	Our company makes use of IEBT, very often.	
IEBT2	Our company uses IEB e-commerce/e-payment, at all times, for its transactions.	
IEBT3	Our company uses IEB its critical operations.	
IEBT4	The number of business operations and activities in my company that requires IEBT is high.	
5	Social Media Marketing (SMM)	Shareef et al., 2019; Chatterjee & Kumar Kar, 2020
SMM1	For advertising my products and services social media marketing is helpful	
SMM2	Because my competitors are using social media for marketing, I should use it	
SMM3	Usage of social media marketing technique is good for my business	
6	SMEs Sustainability	

(Continued)

**Table A1. (Continued)**

	Variable	Source
SS1	My business performance has been increased using social media platform	Elbanna et al., 2019; Shareef et al., 2019; Chatterjee & Kumar Kar, 2020
SS2	My sales are above average compared to others using social media platform	
SS3	My customers feel more connected with my business after using social media	
SS4	My efficiency to identify the customers' need has been increased using SMM	
SS5	Creativity of my employees has been enhanced through use of SMM	



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