

Research Article

Is Financial Literacy Associated With SME Sustainability During COVID-19?

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Abstract. The role of small-medium enterprises (SMEs) and their contributions to the economy are well recognized in the literature. However, SMEs have been challenged by COVID-19. There are limited empirical findings suggesting how the government lockdown policy affected SME sustainability. This study investigated the sustainability of Indonesia's SMEs, and their social media adoption, financial literacy and financial access during the COVID-19 pandemic. This study also determined the effect of social media adoption, financial literacy, and financial access on SME sustainability. The resources-based theory was applied to understand the phenomena. Twenty-six SMEs operating in Pariaman city participated in this study. Variables were measured by a five-point Likert scale, and were analyzed descriptively. Furthermore, structural equation modelling was utilized, and in this case, smart-pls 3.2.8. was used. The results showed that the level of social media adoption was extremely low (mean = 2.20). The SMEs' financial literacy was adequate (mean = 3.56). SMEs could access financial resources (mean = 3.84). Finally, the sustainability of SMEs was extremely low (mean = 2.35). Also, out of the three latent independent variables (social media adoption, financial literacy, financial access), only social media adoption had a positively significant effect on SME sustainability. This study implies that SMEs should increase social media adoption to gain higher sustainability. The authority should help build SME capabilities in digital marketing so that they survive in this turbulent time. This study contributes to the resources-based theory because variation in SME sustainability was determined by the SMEs' resources, such as their digital marketing capability.

Keywords: SME sustainability, financial literacy, financial access, social media adoption

1. INTRODUCTION

The sudden appearance of coronavirus diseases -2019 (COVID-19) has severely influenced the global economy [1] and challenged the world [2]. The case was first identified in Wuhan, Hubei, China, in December 2019 and has yielded an underway pandemic [3]. As of November 25th, 2020, more than 60 million cases were reported from 188 countries, deriving in more than 1.4 million deaths. Asian Development Bank predicted that the global economy could undergo between \$5.8 trillion and \$8.8 trillion in losses -equal to 6.4%-9.7% of gross domestic product (GDP) globally due to pandemic coronavirus

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disease [4]. The impact of COVID-19 negatively is limited to the loss of human lives and short and long-term social, economic, and political effects [5]. [1] argue that there are several impacts of COVID-19 on enterprises, such as transportation disruption, supply chain disruption, cancellation of export orders, material shortage, decreased demand, etc. Small-medium enterprise (SME) is the major victim of the COVID-19 outbreak because it does not have sufficient resources and is prepared well for such disruption [6]. Therefore, the sustainability of the small-medium enterprise will be threatened.

Small-medium enterprise roles and their contribution to the real economy are well acknowledged, and previous studies have been documented. In Indonesia's context, almost 75% of employment in Indonesia works in the small-medium enterprise, and Indonesia's SME contributed to the country's gross domestic product enormously [7]. Besides, SMEs became the center of economic rotation of the economy in local government [8]. However, the sustainability of SMEs during COVID-19 is intimidated. A study on SMEs has been done largely [9]; however, it did not concentrate on COVID-19 time. Even though previous studies are using SMEs during COVID-19 (Hardilawati, 2020; Marlinah, 2020; Pakpahan, 2020), they did not focus on sustainability from social media adoption, financial access, and financial literacy during COVID-19. Therefore, this study investigates the relationship between social media adoption, financial access, and financial literacy on SME sustainability. This work is organized as follows: the first session is discussing the background of the study. Second place, it deliberated about the theoretical aspect and followed by research methods. Fourth session converse about results and discussion. Finally, the conclusion and recommendation are in the fifth session.

1.1. Sustainability

Business management outcome is competitive advantage or sustainable competitive advantage (SCA). Resources-based view [10,11], resources affect the competitive enterprise advantage. Besides, resources could be measured by tangible and intangible resources. Machine, building and other physical assets are an example of tangible resources. An intangible asset refers to an asset that is not physical in nature. These resources could be company capability and, finally, core competencies. Core competencies are developed using VARIO criteria (value, rare, costly to imitate, and non-substitutable) and value chain analysis. If the resources are suited to VARIO criteria, they become a competitive advantage and sustainable competitive advantage. Figure 1 demonstrates the enterprise sustainable competitive advantage framework.

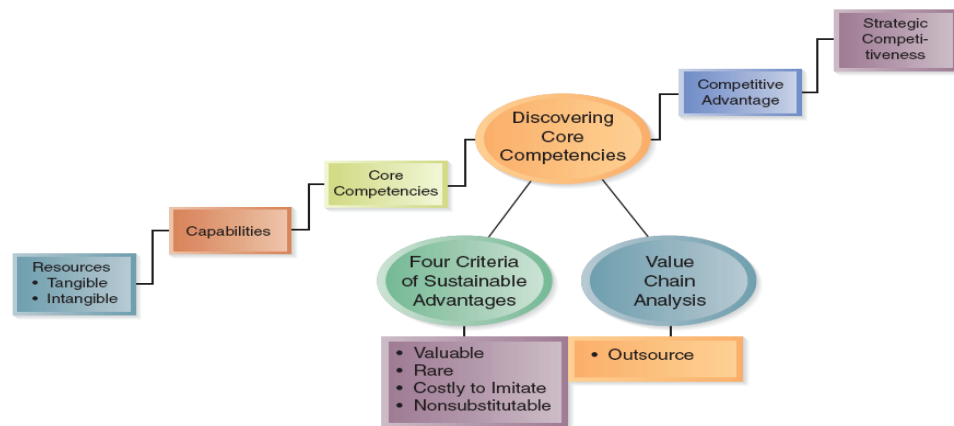


Figure 1: Sustainable competitive advantage framework.

1.2. Financial Literacy

The financial literacy of manager-owners of small and medium enterprises is derived from the above framework. Knowledge and cognitive capability are required to manage finance and make effective financial decisions regarding a financial matter. SMEs need to develop their financial literacy to understand and execute an effective plan for assessing finance [12]. Other experts believe that SMEs with financial literacy tend to make better financial decisions with fewer management faults than their financially literate competitors [13]. In addition, financial literacy also helps SMEs make optimal financial decisions and selection [14]. This condition will make SMEs be able to access financial resources through banks and other financial institutions. In addition, SMEs with financial literacy could manage their working capital, capital budgeting, capital structure, dividend policy, internal and external financing decisions. Finally, SMEs with financial literacy would have a positive relationship with SME performance. The previous study also supports a positive relationship between SME financial literacy and its sustainability [12,14,15]. Based on this argumentation, we develop the first hypothesis.

H1: there is a positive relationship between financial literacy and SME performance.

1.3. Financial access

Financial access is the enterprise's ability to enter financial resources from financial institutions, such as banks and financing companies. On the supply side, financial access is defined as the financial service's availability such as credit, payments, insurance, and demand deposit [16]. If the company can access financial services that are usable, affordable, and meet their financial needs, it has good access to finance[17]. Financial access is believed to be the most important factor in determining SME growth and

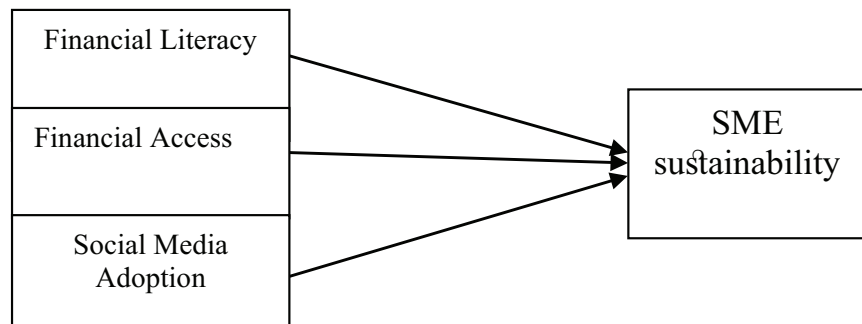


Figure 2: Research framework.

survival. The previous researcher documented the relationship between financial access and sustainability [12,15]. [12] investigates the effect of financial access on sustainability using SMEs operating in Uganda and concludes that financial access and SME sustainability are significant. In addition, [15] analyzes the relationship between financial access and SME sustainability. They reveal that financial access is significantly related to SME sustainability. Based on these arguments, we formulate the second hypothesis.

H2: there is a significant relationship between financial access and SME sustainability.

1.4. Social media adoption

Social media adoption is the use of social media by SMEs. There are so many benefits to using social media, such as (i) increase sales, (ii) reducing costs, (iii) improving customer services, (iv) reach and brand awareness [18,19]. [20] found a positive relationship between social media adoption and SME sustainability. Studies about technology and social media have been done in Indonesia setting [21-27]. However, only two studies investigate social media adoption among SMEs [21,22]. Social media provide access to the market and help develop customer relationship marketing, contributing to SME growth [28]. [29] also documented the evidence on the relationship between social media adoption and SME performance and concluded that there is strong evidence of this relationship. The recent finding also reveals a positive association between social media adoption and SME performance [21]. Based on the above argumentation, we developed the third hypothesis as follows.

H3: there is a positive relationship between social media adoption and SME sustainability.

The research framework is demonstrated in Figure 2.

2. METHODOLOGY/ MATERIALS

The Small-medium enterprises operating in Pariaman city (Indonesia) is an object of this research. There are twenty-six Small and medium enterprises participating in this study. The data was collected from June to August 2020 (during Covid19). Primary information is employed and managed through a survey. This study has two types of variables: latent dependent variable (SME sustainability) and latent independent variable (financial access, financial literacy, and social media adoption). Access to finance consists of ten items developed by [12]. In addition, the variable of financial literacy was created by [30], and it has thirteen items. Further, the social media adoption use instruments (5 items) was developed by [31]. Finally, the SME sustainability use questionnaires were constructed by [32]. All variables were measured by five scale Likert. The secondary data is analysed using Structural Equation Model. In this case, the smart-pls is employed to accept or reject the hypotheses. The t-statistic or p-value is used to confirm the hypotheses. The value of t-statistic below 0.05 with expected direction, the hypothesis is accepted and otherwise. However, the measurement model and structure model assessment should be executed to gain the model's fitness [33].

3. RESULTS AND DISCUSSIONS

3.1. SME profile

This study investigates the level of sustainability, financial literacy, financial access, and social media adoption among small-medium enterprises in Pariaman city, Indonesia. Besides, this study also determines the effect of financial literacy, financial access, and social media adoption on SME's sustainability. The primary data using a survey is used to answer the study's objectives. Table 1 demonstrates the demography data gathered from the study. The gender of SME's owners is 26.9% is male, and the rest is female. This data indicate that female is dominated as SME's owners. SME owners' education shows that education is dominated by senior high school graduates (38.5%). Diploma and bachelor graduates of SME's owners are 26.9% and 26.9%, respectively. The rest is master older and graduate. Based on SME age, age less than five years took first place (50%). Besides, SMEs' ages of 6 to 10 years and greater than ten years are 38.5% and 11.5% successively. According to business property ownership, 76.9% of SME business property is owned by SME's owners, and the rest is by renting. Most business types are trading (73.3%), and the rest is service business type (26.9%).

TABLE 1: Demography data

Demography Data	Category	Frequency	Per cent
Owner's gender	Male	7.0	26.9
	Female	19.0	73.1
Owner's education	Senior high school	10.0	38.5
	Diploma	7.0	26.9
	Bachelor	7.0	26.9
	Master	1.0	3.8
	Other	1.0	3.8
SME's age	< 5 years	13.0	50.0
	6 to 10 years	10.0	38.5
	> 10 years	3.0	11.5
Business property's ownership	Self-own	20.0	76.9
	Rent	6.0	23.1
Business's type	Trading	19.0	73.1
	Service	7.0	26.9

3.2. Statistic Descriptive

The study's first objective is to investigate the level of sustainability, financial literacy, financial access, and social media adoption. Table 2-5 demonstrates SMEs' sustainability, financial literacy, financial access, and social media adoption level during COVID-19. Table 2 indicates that the sustainability level is 1.64 (five-scale Likert). Based on this data, the level of SME sustainability is incredibly low. Most SMEs state an increase in operating cost, reducing profit growth rate and customer satisfaction, inadequate confirmation of customer orders, poor response to market demand, decreasing product or service delivery time, reducing profit margin, and decreasing return on investment. COVID-19 causes a low level of sustainability. The government (central government and local government, including the Pariaman city government) introduced the lock-down policy. Therefore, there was decreasing in product or service demand. For example, SMEs operating in school and public premises were closed because of a lock-down policy.

The second descriptive statistic is financial literacy. There are thirteen items that represent the financial literacy construct. However, there are only four valid items. As shown in Table 3, the mean value of financial literacy is 3.56. It can be concluded that the financial knowledge of SME owners is adequate. The valid items are (i) aware of a required document to get a loan (f18), (ii) aware of the cost and benefit of having credit

TABLE 2: Descriptive statistic for valid item Sustainability

Sustainability	Minimum	Maximum	Mean	SD
sus1	1.00	3.00	1.38	0.70
sus2	1.00	3.00	1.42	0.64
sus3	1.00	3.00	1.92	0.80
sus4	1.00	3.00	1.77	0.71
sus5	1.00	3.00	1.62	0.75
sus6	1.00	3.00	1.81	0.75
sus7	1.00	3.00	1.58	0.70
sus8	1.00	3.00	1.62	0.75
Average			1.64	

TABLE 3: Descriptive statistic for valid item Financial literacy

Financial literacy	Minimum	Maximum	Mean	SD
f18	1.00	5.00	3.31	1.59
f19	1.00	5.00	3.50	1.58
f110	1.00	5.00	3.69	1.35
f111	1.00	5.00	3.73	1.19
Average			3.56	

(f19), (iii) able to calculate the interest (f110), and (iv) having skills required to assess the financial outlook (f111).

Financial access consists of 10 items and five valid items. The mean value of financial access is 3.84, which can conclude that financial access is high. The valid items are (i) aware of saving product offered by the bank is safe (fa5), (ii) aware of load product provided by bank suits the need (fa6), (iii) term and conditions on bank loans are favorable (fa7), (iv) financial service offered by the bank is safe (fa8), and (v) account opening charged by the bank is affordable (fa9).

There are six items initially used for social media adoption. However, only one thing has a convergent validity (see table 5): social media adoption length by SME (sm6). The mean value for that item is 2.35, and it means that SMEs adopted social media 2 and 3

TABLE 4: Descriptive statistic for valid item Financial access

Financial Access	Minimum	Maximum	Mean	SD
Fa5	1.00	5.00	3.85	1.16
Fa6	1.00	5.00	3.81	1.10
Fa7	1.00	5.00	3.73	1.34
Fa8	2.00	5.00	4.00	0.94
Fa9	1.00	5.00	3.81	1.13
Average			3.84	

TABLE 5: Descriptive statistic for valid item Social Media Adoption

Social Media Adoption	Minimum	Maximum	Mean	SD
sm6	1.00	5.00	2.35	1.41
average			2.35	

Social Media Type

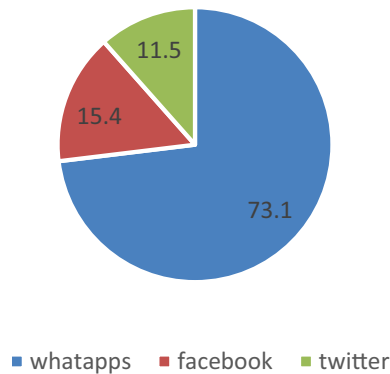


Figure 3: Social media type used by SME (%).

years ago. As we can see from Figure 1, the type of social media used was dominated by WhatsApp’s (73.1%), and it is followed by Facebook (15.4%) and Twitter (11.5%)

3.3. Measurement model

This study’s second objective is to determine the effect of financial literacy, financial access, and social media adoption on SME sustainability. To achieve the research, this study uses the structural equation model (SEM). In this case, smart-pls 3.2.8 is employed. In smart-pls, Measurement and structural models are assessed [34]. The measurement model evaluation consists of convergent and discriminant validity. Table 6 shows the result of convergent validity. Four SEM-PLS properties were assessed: outer loading, Cronbach alpha, composite reliability, and average variance extracted. There are five valid items for the financial access construct (fa5, fa6, fa7, fa8, and fa9). All valid item has an outer loading value greater than 0.70 [35]. In addition, Cronbach alpha and composite reliability for the financial access construct also support the convergent criteria, greater than 0.70 [36]. Meantime, the average value extracted for financial access is 0.70, and it can conclude that it supports the convergent validity criteria. Further, the financial literacy construct has four valid items based on the outer loading value (fl8, fl9, fl10, and fl11). Besides, Cronbach alpha (CA), composite reliability (CR), and average variance extracted (AVE) for this construct are suit to criteria (Bagozzi & Yi, 1988; Hair et al., 2017;

TABLE 6: Convergent validity

Construct	Item	Outer Loading	CA	CR	AVE
Financial Access	Fa5	0.79	0.89	0.92	0.70
	Fa6	0.89			
	Fa7	0.83			
	Fa8	0.93			
	Fa9	0.74			
Financial Literacy	fl10	0.94	0.88	0.91	0.73
	fl11	0.73			
	fl8	0.88			
	fl9	0.84			
Social Media Adoption	sm6	1.00	1.00	1.00	1.00
Sustainability	sus1	0.84	0.93	0.94	0.74
	sus2	0.70			
	sus4	0.81			
	sus5	0.91			
	sus7	0.95			
	sus8	0.90			

TABLE 7: Fornell-Lacker criterion

Construct	SUS	FA	FL	SMA
SUS	0.86			
FA	-0.43	0.84		
FL	-0.35	0.67	0.85	
SMA	0.30	-0.07	0.24	1

Hulland, 1999). The other two constructs also indicate we comply with the rule of thumb. Social media adoption has one correct item (sm6) due to its outer loading greater than 0.7. In addition, sustainability has six valid items (sm1, sm2, sm4, sm5, sm7, and sm8). These two constructs have good reliability (Cronbach alpha and composite reliability). The detailed information about outer loading, Cronbach alpha, composite reliability, and AVE are demonstrated in table 6.

Discriminant validity employed two tests: Fornell-Lacker criterion and cross-loading. Fornell-Lacker criterion is shown in table 7. All construct has a good discriminant validity due to their square root of construct AVE being higher than the construct relationship with other constructs. For example, sustainability has a square root of its AVE (0.86) higher than its relationship with FA (-0.43), FL (-0,35), and SMA (0.30).

The second method to access the discriminant validity is cross-loading. The result of cross-loading all constructs and their items can be seen in table 8. As shown in the table below, all construct fits their items. For example, items fl8, fl9, fl10, and fl11 were more

TABLE 8: Cross-loading

Items	SUS	FA	FL	SMA
Fa5	-0.22	0.79	0.68	0.28
Fa6	-0.37	0.89	0.63	-0.08
Fa7	-0.28	0.83	0.44	-0.12
Fa8	-0.43	0.93	0.74	0.00
Fa9	-0.40	0.74	0.33	-0.23
fl10	-0.30	0.75	0.94	0.14
fl11	-0.21	0.49	0.73	0.37
fl8	-0.41	0.54	0.88	0.18
fl9	-0.11	0.42	0.84	0.17
sm6	0.30	-0.07	0.24	1.00
sus1	0.84	-0.31	-0.14	0.27
sus2	0.70	-0.07	0.03	0.36
sus4	0.81	-0.41	-0.47	0.20
sus5	0.91	-0.46	-0.41	0.17
sus7	0.95	-0.36	-0.32	0.36
sus8	0.90	-0.45	-0.30	0.28

TABLE 9: Heterotraits-heteromethod correlations

Construct	SUS	FA	FL	SMA
SUS				
FA	0.42			
FL	0.33	0.73		
SMA	0.33	0.18	0.27	

loaded to financial literacy than other constructs. Therefore, it achieved the validity test criteria.

The third test of discriminant validity is heterotraits-heteromethod correlations. The discriminant validity is satisfied if the HTMT value is lesser than 0.85 [37]. The result (see table 9) shows that there is no HTML value greater than 0.85. Therefore, it achieves discriminant validity. The measurement model can be seen in Figure 4.

3.4. structural model

The following assessment is a structure model. There are two types of statistic property evaluated in the structure model: Q square (predictive relevant) and R square (predictive power). As shown in Table 10, the Q square is 0.18, categorized as medium predictive relevance. In addition, the R square is 0.30, and it is classified as moderate predictive power. In addition, the effect of financial access, financial literacy, and social media

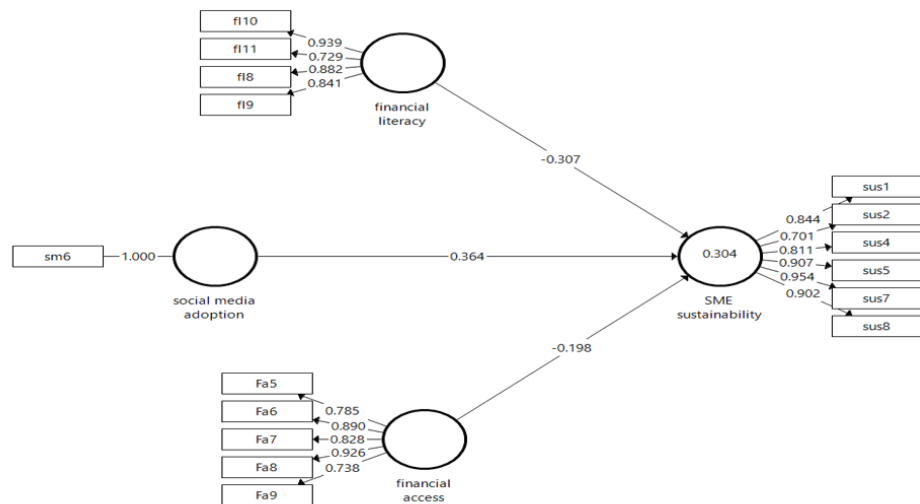


Figure 4: Measurement model.

TABLE 10: Structural model assessment

Endogenous construct	Q square	decision	R square	decision
Sustainability	0.18	medium	0.30	moderate
Relationship	coefficient	t statistic	p value	conclusion
financial access -> Sustainability	-0.20	0.69	0.49	not supported
financial literacy -> Sustainability	-0.31	1.07	0.29	not supported
social media adoption -> Sustainability	0.36	1.85	0.07	supported

adoption on SME sustainability is employed the t statistic or p-value. The result shows that social media adoption is significantly related to the sustainability of small-medium enterprises at 10% (H3 accepted). However, the relationship between financial access and sustainability is significant because its p-value is greater than 0.05 (H1 rejected). The effect of financial literacy on sustainability is also not significant (H2 rejected).

The first finding shows that there is no effect of financial access on sustainability. This finding is not consistent with the finding of previous research (12,15), which conclude that there is a positive relationship between financial access and sustainability. The second result also indicates that there is no relationship between financial literacy and SME sustainability. This finding differs from previous research findings (12,14,15). The third result is supported by previous research (21,28,29), which concludes that SMEs with higher social media adoption bring higher sustainability. The structural model is shown in Figure 5.

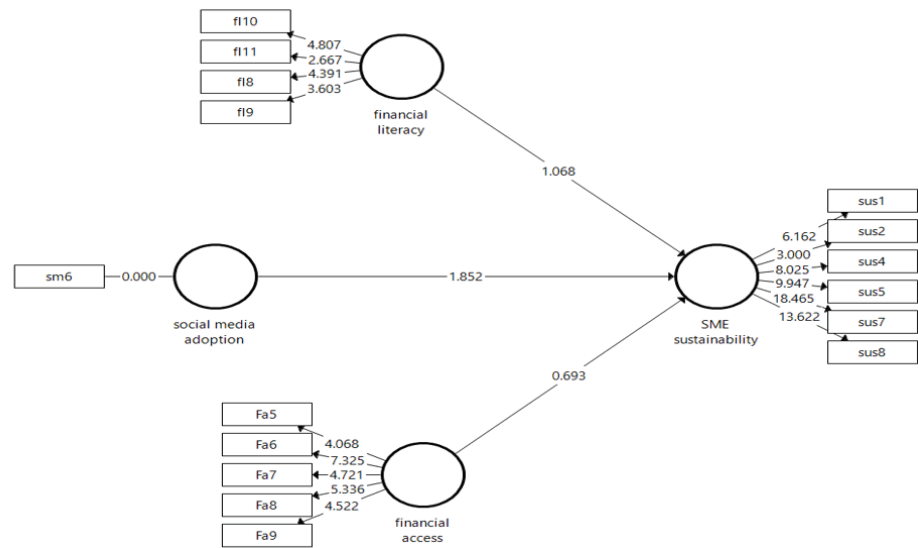


Figure 5: Structural model.

4. CONCLUSION AND RECOMMENDATION

Due to the covid-19, SME sustainability is being threatened. Previous studies have been documented the impact of the Covid-19 outbreak on SME performance, thus its sustainability. However, limited studies are using Indonesian data. This study concludes that the sustainability level (1.64) of SMEs during Covid-19 is very low. Even though their financial literacy and financial access are high (3.56 for financial literacy and 3.84 for financial access). However, the level of social media adoption is relatively low. Based on the smart-pls structure model assessment, we conclude that financial access and financial literacy do not affect SME sustainability during Covid-19. However, social media adoption plays an important role in determining SME sustainability. This study theoretically implies that knowledge based theory [38] and dynamic capability theory (Helfat & Peteraf, 2003) partially explain the variation in sustainability. Practically, SME stakeholders can consider this finding, especially since the adoption of social media among SMEs is relatively low. Social media adoption can be used to develop SME sustainability during Covid-19. This study has several limitations, such as a small sample and limited independent variables. The future researcher can add more samples in their research and put other independent variables from another perspective.

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