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The Effect of Financial Literacy, Cost of Technology Adoption, Technology Perceived Usefulness, and Government Support on MSMEs' Business Resilience

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ABSTRACT

Objective - The Covid-19 pandemic has made MSMEs enter a crisis period that makes them the most vulnerable sector during a crisis. Given the vital role of MSMEs in economic stability, this study identified the drivers that shape the resilience of the MSME business, which is still not widely explored. This study elaborates on the role of knowledge-based financial literacy, financial resources and the cost of technology adoption from the financial side, TAM from the technology side, and external environmental factors in the form of government support as a driver of MSMEs' business resilience.

Methodology/Technique – This study collected data from 339 MSMEs operating amid the Covid-19 crisis, and data analysis was carried out using the PLS-SEM technique.

Finding – The results show that financial literacy positively affects financial resources and the cost of adopting technology from a financial perspective. However, only the cost of adoption directly affects business resilience, while financial resources have no effect. In terms of technological acceptance, perceived ease of use positively impacts perceived usefulness. However, only perceived usefulness directly affects business resilience, while perceived ease of use does not. Finally, government support positively affected business resilience during the pandemic.

Novelty – This paper elaborates on the financial, technological, and government support aspects as an integrated framework to examine MSME resilience.

Type of Paper: Empirical

JEL Classification: M10, M15, M48, O33

Keywords: MSME Business Resilience, Financial Literacy, Cost of Technology Adoption, Perceived Usefulness, Government Support.

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1. Introduction

The Covid-19 pandemic is considered a "Black Swan" event because it appeared unexpectedly, was difficult to predict, occurred outside the expected normal range, and had a very extreme impact that could lead to business failure (Gregurec et al., 2021).

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The Covid-19 pandemic brought people into an era of turbulence called VUCA: "volatile, uncertain, complex and ambiguous." Implementing social mobility restriction policies led communities to enter a prolonged health, social and economic crisis. The MSME was one of the worst affected sectors (Guo et al., 2020). MSMEs represent more than 90% of all companies worldwide in formal and informal business sectors (Gunasekaran et al., 2011; Rana & Tiwari, 2018; Thorgren & Williams, 2020). That makes them become the most significant contributors to gross domestic product and the largest source of labor creation and absorption, poverty reduction, and driver of innovation that plays an essential role in the economic growth process of a nation (Gunasekaran et al., 2011; Katyal & Xaviour, 2015; Savlovschi & Robu, 2011; Ye & Kulathunga, 2019), especially in developing countries (Saad et al., 2021) like Indonesia.

In Indonesia alone, MSMEs have a significant role in the economy because they contribute 61.07% of GDP and absorb 97% of the total workforce (Kementerian Kordinator Bidang Perekonomian Republik Indonesia, 2021). However, the MSME Performance survey during the COVID-19 pandemic showed that during the pandemic, 94.69% of businesses experienced a decrease in sales, and 85.42% of MSME respondents also stated that their business was likely to last only one year since the pandemic took place (Lembaga Ilmu Pengetahuan Indonesia, 2020). Amid unavoidable and surprising disruptions (black swan events) such as Covid-19, investing in resilience studies promises a more effective strategy than allocating scarce resources to control the environment and defend against certain risks (Boin & van Eeten, 2013; Branicki et al., 2018), especially for MSMEs in developing countries due to the frequency of recurrence rates and the higher complexity of disruption (Saad et al., 2021).

Although empirical facts state that SMEs have several advantages over large companies due to their size and flexibility in adapting to changes (Branicki et al., 2018; Sullivan-Taylor & Branicki, 2011), most recent study results showed that small and medium-sized enterprises (SMEs) are particularly vulnerable to failure in continuous shifts and unpredictable events like Covid-19 (Yu et al., 2021) when compared to large companies (Guo et al., 2020; Klein & Todesco, 2021; Pal et al., 2014; Saad et al., 2021). SMEs are also the most affected in times of crisis and the least prepared of all organizations (Sullivan-Taylor & Branicki, 2011). This is because the liability of smallness owned by SMEs makes them less likely to be vulnerable in the face of market risks, have limited financial resources, limited human resources, and managerial capacity, as well as a lack of knowledge management, needed to manage the challenges caused by the emerging coronavirus situation (Klein & Todesco, 2021; Yu et al., 2021).

Previous research on the level of business resilience of MSMEs is still very much segmented both in terms of definition, measurements, and studies related to affecting factors, and is carried out from various perspectives (Barbera et al., 2017; Branicki et al., 2018; Saad et al., 2021), from a resource-based view (Pal et al., 2014; Sullivan-Taylor & Branicki, 2011), dynamic capability (Aldianto et al., 2021; Anggadwita et al., 2021; Guo et al., 2020), the transformation of information technology (Klein & Todesco, 2021; Yu et al., 2021), and personal entrepreneurial characteristics (Branicki et al., 2018), which are generally done partially to explain the concept of MSME business resilience, especially in times of crisis such as the Covid-19 pandemic. Furthermore, the study of how SMEs prepare and respond to emergencies is still not much explored (Kativhu et al., 2018; Sullivan-Taylor & Branicki, 2011). Thus, there is a need for more empirical research that examines how organizations, especially SMEs, achieve a level of business resilience (Bhamra et al., 2011; Branicki et al., 2018), especially in developing countries in Southeast Asia (Saad et al., 2021), like Indonesia.

Taking into account the literature gap related to the antecedent business resilience of MSMEs, this study presents a quantitative study of factors that affect the level of business resilience of MSMEs conducted by integrating internal enablers (financial factors and technology acceptance factors) with external factors in the

form of government support amid the Covid-19 pandemic where the resilience of organizational businesses, especially MSMEs, is needed to maintain national economic stability.

In terms of financial factors, financial literacy is one of the most relevant skills for SME development (García-Pérez-de-Lema et al., 2021). The results showed that financial literacy is essential for the survival of SMEs in developed and developing countries. Low financial literacy leads to poor management practices that lead to frequent financial mistakes (Utami et al., 2021; Ye & Kulathunga, 2019). Furthermore, financial literacy is needed to cope with the rapid economic changes (Huston, 2010) amid the Covid-19 pandemic.

The 2019 National Survey of Financial Literacy and Inclusion showed that Indonesia's financial literacy index was only 38.03%, with a financial inclusion index of 76.19% (Otoritas Jasa Keuangan, 2021). As a country with the fourth-largest population level in the world, the Indonesian people's financial literacy is relatively low compared to other ASEAN countries such as Singapore and Malaysia (Karina, 2021). Low levels of financial literacy can prevent SME performance levels from adequately assessing and understanding different financing provisions and navigating complex loan application procedures (Anggraeni, 2016; Eniola & Entebang, 2015; Okello et al., 2016). Low financial literacy also results in SMEs having minimal access to external funding sources, especially in developing countries (Okello et al., 2016).

In terms of financial resources, smaller businesses have an over-reliance on internally generated funds to leverage their operations and provide the liquidity needed to fund their day-to-day operations. Thus, the economic lockdown caused by COVID-19 can put many small businesses at severe risk of only running out of money during a crisis (Cowling et al., 2020). SMEs' reliance on internal funding causes the role of SMEs in economic development to be limited by the difficulty of access to financial services, especially from formal financial institutions to obtain capital (Klein & Todesco, 2021; Kusuma et al., 2020; Zarrouk et al., 2020). Of about 60 million MSMEs in Indonesia, 46.6 million, or 77.6 percent, cannot access banking credits (Ramli, 2021) due to their difficulty qualifying for loan collateral, complex administrative processes, and complicated bureaucracies (Ardiansyah, 2019; Damara, 2021). However, Pal et al. (2014) study result shows that financial resources are critical enablers of business resilient SMEs (Saad et al., 2021).

In addition to the influence on better financial resources, financial literacy is essential for making sound investment decisions and mitigating risks, thus improving SMEs' sustainability (Ye & Kulathunga, 2019). Furthermore, financial literacy is considered one of the essential sources of knowledge that increases individuals' and companies' capacity, skills, and expertise to use technology effectively (Kulathunga et al., 2020). This is where the higher the financial literacy of SME owners or managers, the more decisions will be made for innovation investments (García-Pérez-de-Lema et al., 2021), which supports the business performance of SMEs. However, major economic shocks make business opportunities less specific and make most companies react to adverse short- or medium-term macroeconomic environments by reducing spending, including investment and innovation (Archibugi et al., 2013).

Moreover, regarding technology, MSMEs in Indonesia need to consider aspects of business digital transformation amid a pandemic (Fitriasari, 2020) due to large-scale social mobility restrictions (Gregurec et al., 2021; Patma et al., 2021). However, the adoption of new technologies can be challenging for MSMEs as they may face critical obstacles, such as a lack of technical knowledge and skills, perceptions of the cost of implementing unaffordable technologies (Effendi et al., 2020; Kusuma et al., 2020; Patma et al., 2021; Yu et al., 2021), the need for human resources with adequate technological capabilities (Effendi et al., 2020; Rahayu & Day, 2017), and internet network problems (Trinugroho et al., 2022). In Indonesia itself, based on data from the Ministry of Cooperatives and Small and Medium Enterprises (SMEs) the number of Small and

Medium Micro Enterprises (MSMEs) that have adopted digital technology is still low, predicted to reach only 13% (Rachmawati, 2020).

Finally, the government's support variable was chosen because the Indonesian government's incentives had invested RP 96.21 trillion to help MSMEs (Https://www.kominfo.go.id/, 2021). However, research that analyzes how effective the role of the Indonesian government's financial support is for the level of business resilience of MSMEs is still not widely explored.

Following the proposed phenomenon and research objectives, this study aims to see the extent of financial literacy (level of financial literacy, financial resources, and cost of technology adoption) and aspects of technology acceptance (perceived usefulness and perceived ease of use). Factors in the form of government support affect the MSMEs' business resilience in Indonesia amid the impact of the COVID-19 pandemic.

This paper begins with an explanation of the impact of the Covid-19 pandemic on the vulnerability of micro, small and medium enterprises, which are the main economic drivers in Indonesia. The study also explores continuing studies on resilience in business and efforts to develop an integrated framework that combines internal capabilities and institutional factors. Furthermore, the study also describes the literature review used to create the research model. Moreover, the study also describes the research methods used. Then, the data results were analyzed to describe the relationship between variables that affect the formation of MSME business resilience.

2. Literature Review

Business Resilience

The concept of resilience departed from an ecological perspective when it was first popularized by Holling (1973). The idea of resilience is closely related to the ability and capability of an element to return to the equilibrium point after interference. Resilience is linked to individual and organizational responses to turbulence and discontinuities (Bhamra et al., 2011). Vogus & Sutcliffe (2007) define organizational resilience as the organization's ability to maintain and make positive adjustments in challenging conditions that ultimately make the organization more resilient and more resourceful.

Further, Hamel & Välikangas (2003) define organizational resilience as the ability of organizations to dynamically reconstruct company strategies and business models to address uncertain environmental changes, maintain operational stability, and maintain production efficiency. A resilient organization will maintain a high level of performance even as environmental pressures increase, threats arise, and external environmental uncertainties deepen. In unexpected difficulties, resilient organizations are said to 'bounce back quickly, without much effort (Boin & van Eeten, 2013). A resilient company or organization uses its financial, technical, and social resources to develop long-term skills and competencies in an efficient, reliable, and flexible way to manage challenges and take advantage of opportunities (Tengblad & Oudhuis, 2018).

The Link between Financial Literacy, Financial Resource, Cost of Technology Adoption, and SMEs' Business Resilience

Resource-Based View (RBV) theory considers a company as a set of resources that directly and indirectly affects the company's performance and growth to produce a sustainable competitive advantage (Barney, 1991; Das & Teng, 2000). Here, a company's resources are everything that might be understood as the strengths or weaknesses of a particular company, consisting of tangible and intangible assets. One form of intangible resource is the company's knowledge (Wernerfelt, 1984). From the knowledge-based (KBV)

perspective, Grant (1996) mentions that knowledge resources will help companies achieve competitive advantages and improve their business performance. Therefore, sources of knowledge, such as financial literacy and business experience, help SMEs maintain their performance (J. Hussain et al., 2018).

Financial literacy measures how a person understands financial concepts and has the ability and confidence to manage personal finances through proper and sound short-term and long-term financial planning (Remund, 2010). Regarding entrepreneurship, financial literacy is one of the essential characteristics of business owners and managers that improve knowledge, skills, and economic quality to effectively manage other vital resources, especially financial resources (Anderson, 2015). Therefore, the better the level of financial literacy of SME owners, the higher their awareness and knowledge in identifying various financial resources right for business (Eniola & Entebang, 2017). Better financial literacy will also allow SMEs to prepare timely, relevant, and accurate financial statements necessary to access external funding sources (Ye & Kulathunga, 2019).

Financial literacy, such as technology adoption, also affects investment decision-making (Eniola & Entebang, 2015). Financial literacy is one of the critical sources of knowledge that enhances individuals' and companies' capacity, skills, and expertise to use technology effectively. Therefore, integrating technological and financial literacy is vital to improving organizational performance (Kulathunga et al., 2020). SMEs with greater executive financial literacy have better access to credit, allowing for a greater allocation of investment funds for innovation (García-Pérez-de-Lema et al., 2021). Thus, the hypotheses in this study are as follows:

H1: *Financial literacy positively affects MSMEs' financial resources*.

H2: *Financial literacy positively affects MSMEs' cost of technology adoption*.

Adequate funding access for businesses positively affects small businesses' financial and non-financial growth. With sufficient financial resources, companies become better able to experiment with innovation and pursue new growth opportunities (Hossain, 2020). Financial resources are critical drivers of SME business resilience activities (Sullivan-Taylor & Branicki, 2011). Financial resources can provide a buffer in crises, and the scope for moving financial assets to various uses makes it a critical source of business resilience (Branicki et al., 2018). According to studies by Sundarakani & Onyia (2021) in the UAE, the government's injection of additional financial resources encourages the digital transformation process for the most vital operational processes that ultimately help businesses stay afloat during the Covid-19 crisis. Thus, the hypothesis in this study is as follows:

H3: *Financial resources positively affect MSMEs' business resilience.*

The concept of technology adoption costs can be viewed from two sides: the access fees of the internet and the company's income (Alam, 2009). The definition of cost of technology adoption in this study refers to Bessen (2002), which associates the cost of technology adoption with the cost of the transition process to using new technology. Adoption costs are seen as a form of investment that can benefit companies in the long run because they are cost-effective so that organizations can leverage them to communicate directly with customers at a relatively low cost (Selase et al., 2019). Further, Pahwa (2020) states that the costs for adopting e-commerce technology should be seen not only as costs incurred by businesses to survive amid a crisis but also as an investment to deal with disruptive events in the future. Thus, the hypothesis in this study is as follows:

H4: *Cost of technology adoption positively affects MSMEs' business resilience.*

The Link between Technology Acceptance and MSMEs' Business Resilience

One of the widely used theories to study technology use in various life domains is the Technology Acceptance Model (Davis, 1989). According to TAM, users' decision to adopt the technology depends on their rational assessment of perceived ease of use (PEOU) and perceived usefulness (P.U.). In the context of small and medium enterprises (SMEs), Thong & Yap (1995) define the adoption of technology as the use of I.T. solutions both in the form of computer hardware and software that can improve operations management performance decision-making in an organization.

Previous research has shown the importance of new technology adoption, knowledge creation, and innovation in the growth of MSME businesses (Yu et al., 2021). SMEs are also encouraged to adopt appropriate internet technologies to improve their internal processes, improve their products through faster communication with their customers, and promote and distribute their products and services better (Selase et al., 2019). Guo et al.'s (2020) research shows that SME efforts in China towards digitization can help SMEs better respond to the Covid-19 crisis. Adapting SMEs and their business models (redefined by digital technology) aims to ensure continuity and improve business activities during lockdowns. Even if the application of digital technologies that support business activities is not planned and decided on involuntary terms, it leads to advantages in terms of competitiveness and resilience (Gregurec et al., 2021). Moreover, the results showed that PEOU e-commerce positively influences P.U. in adopting e-commerce technology by MSMEs in several developing countries (Esmaeilpour et al., 2016; Herzallah & Mukhtar, 2016; Najib & Fahma, 2020). Thus, the hypothesis in this study is as follows:

H5: Perceived ease of use positively affects perceived usefulness.

Research conducted by (Selase et al., 2019) shows that the perceived ease of use of the adoption of internet technology by UMK is closely related to the level of compatibility of the technology with the network infrastructure of the technology owned. The more compatible the technology with the system infrastructure, the higher the perceived ease of use. Building technology solutions that are easier to use with short implementation periods and oriented towards increasing the value proposition will help SME efforts quickly respond to crises (Gregurec et al., 2021). Further research conducted by Patma et al. (2021) show that SMEs' adoption of social media marketing is high because people are used to using social media in their daily lives. This convenience encourages SMEs to use social media because it can provide needed information about customers and is easy to use for marketing.

Furthermore, in terms of benefits, the use of internet technology has a positive impact on the performance of the SME market. These include increased sales transactions, increased sales volume, increased sales demand, and increased volume of loyal consumers. Internet technology enables market research work that helps SMEs align their products and services with consumer desires, increasing consumer loyalty in the long run. Because internet technology is a global network where digital advertising is created, SMEs can reach a larger market that intends to increase their market to a wide range of consumers (Selase et al., 2019). The results of research (Patma et al., 2021) show that most SMEs in Indonesia use social media to increase business productivity, help better query management, and promote customer satisfaction, which is essential for business continuity in the Covid-19 crisis. Furthermore, the Covid-19 crisis prompted restaurant SMEs in Romania to discover new skills and learn the use of food ordering and delivery platforms as a business solution to retain and attract customers and help improve business performance during the crisis (Türkeș et al., 2021). Thus, the hypotheses in this study are:

H6: *Perceived ease of use positively affects MSMEs' business resilience*.

H7: *Perceived usefulness positively affects MSMEs' business resilience*.

Government Support and SME's Business Resilience

Governments in various countries have provided financial assistance to maintain business continuity during the Covid-19 pandemic (Yu et al., 2021). Studies conducted by Nurunnabi (2020) show that the UEA government has provided financial support to stabilize the employment rate and the resilience of small and medium-sized businesses during the Covid-19 pandemic. Further, studies conducted by Hidayat et al. (2020) show that the financial support provided by the Indonesian government is an oasis that at least relieves MSMEs in managing cash flow so that there is room for them to formulate business strategies during the pandemic. Thus, the hypothesis in this study is:

H8: *Government support positively affects MSMEs' business resilience*.

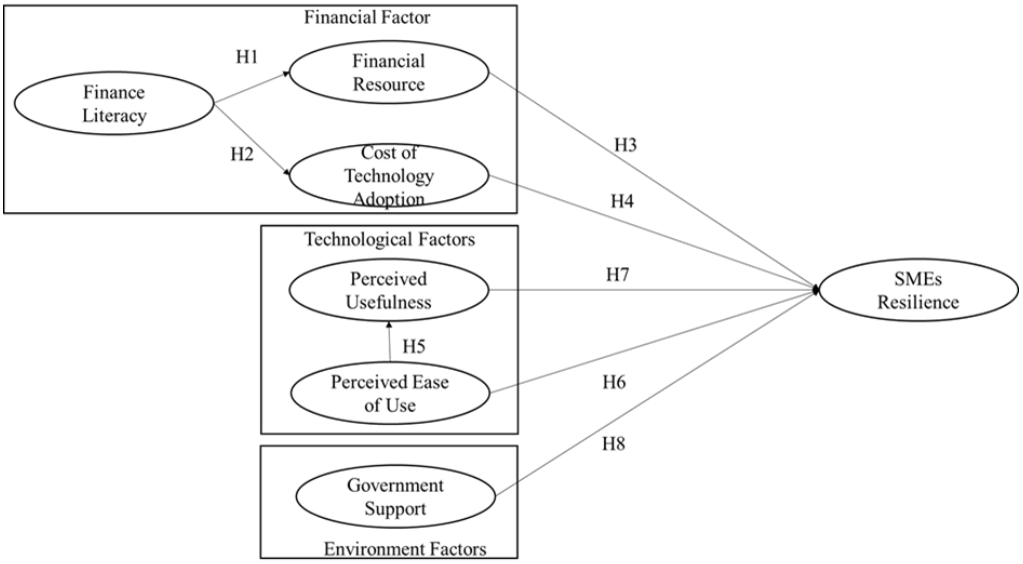


Figure 1. Conceptual Framework

3. Research Methodology

The research population in this study is all MSME owners still operating during the Covid-19 pandemic. This research uses non-probability sampling with judgmental sampling techniques to better understand MSME business resilience. Only a sample of MSME owners whose businesses are still running and have adopted digital marketing during the Covid-19 pandemic would be considered respondents.

This study's calculation of sample sizes refers to Hair et al. (2009), where the number of samples is calculated from the number of variables observed multiplied by 5. The study had 48 question indicators, so the minimum number of samples required was 48 x 5 = 240 respondents. Of the 428 responses entered, only 339, or as many as 79.2%, can be further processed. Data were collected using a digital questionnaire in September-December 2021, when Indonesia experienced the peak of the third wave of the Covid-19 pandemic (Pranita, 2021).

The study uses measurements that were used in previous studies. This study's measure of construct business resilience refers to Hidayat et al. (2020) and Morisse and Prigge's (2017) studies. Measurement of financial literacy is referred to Winarsih et al.'s (2020) study, and financial resource comes from Aranda-Usón et al.'s (2019) study. Meanwhile, measurements of the cost of technology adoption have come from Alam (2009), Selase et al. (2019), and Wang et al. (2020) studies. Furthermore, the PEOU and P.U. measurements referred to Aldianto et al. (2021) and Selase et al. (2019) studies. Lastly, government support

measurements are referred from Hidayat et al.'s (2020) study. All the questions in the study were measured using a Likert scale with a seven-point scale ranging from 7 (strongly agree upon once) to 1 (strongly disagree).

The study used the partial least squares (PLS) method with SmartPLS 3 software (Ringle et al., 2014) to test the research model. This study used PLS versus covariance-based SEM because PLS is very suitable and helpful in analyzing predictive research models in the theoretical development stage (Gimbert et al., 2010).

Furthermore, the study used Harman's single factor analysis to analyze common method variance using SPSS. Harman's single factor analysis is conducted to evaluate the possibility of errors arising from the use of constructs (independent and dependent) used in research, similar to question indicators where, if it is found that Harman's analysis shows that one factor explains more than 50% of the variance, then the problem of common method variance can be said to be present. Based on the results of statistical tests, it was found that the conflict of the research data was 30,657%. This figure is still below 50%. In other words, this study had no common method variance bias (Hussain, 2018).

4. Results

Descriptive Analysis Results

This section will explain the results of the descriptive analysis of the study. Of the 339 MSME respondents in this study, most respondents, or as many as 62.2%, had business locations in Jabodetabek (Jakarta and outer Jakarta). In the business sector, most respondents, or as many as 48.7% of respondents, have a food and beverage business, 18% have a fashion and beauty business, and the rest are engaged in services, creative industries, retail education, and other companies. Regarding the number of employees, most respondents, or as many as 55.5%, are sole proprietors; 25.1% have 1-2 employees, 10.3% have 3-4 employees, and the rest have more than five employees. In terms of annual income, most respondents, or as many as 89.1%, are included in the micro business category, 10% are included in small businesses, and the remaining 0.9% are included in the medium business category (Undang-undang [U.U.] tentang Usaha Mikro, Kecil, dan Menengah, 2008).

Measurement (Outer) Model Analysis Results

To have a high internal consistency, the values of Cronbach's alpha and composite reliability (C.R.) of all variables must be greater than 0.7 (Hair et al., 2011). Based on table 1, the results show that all research items have Cronbach's Alpha and C.R. values greater than 0.7, so the research instruments in this study are reliable.

Furthermore, the validity of the research construct was carried out by looking at convergent and discriminant validity. The convergence validity is measured from factor loadings, composite reliability (C.R.), and Average Variance Extracted (AVE) value (Hair et al., 2011). Hair et al. (2011) state that the good loadings factor value is 0.7 and above for confirmatory research and above 0.6 for exploratory research. This study is categorized as experimental research considering that research on resilience in the business domain is still relatively new (Saad et al., 2021). Based on table 2 and table 3, the AVE values of all variables are >0.5, C.R.>0.7, and the values of all outer loadings are >0.6. Thus, the validity of convergence in this study is good. In addition, measurements of the reality of discriminants in this study were carried out by looking at cross-loading indicator values following Fornell-Larcker's criterion. Based on table 2, the AVE value for each indicator is greater than the correlation between latent constructions, so it can be said that this study has good discriminant validity (Hair et al., 2014).

Table 1. Construct Reliability and Validity

Variable	Item	Cronbach's Alpha	CR	AVE
Cost of Technology Adoption	5	0.826	0.877	0.589
Financial Literacy	6	0.905	0.927	0.679
Financial Resource	6	0.884	0.907	0.621
Government Support	7	0.909	0.928	0.647
Perceived Ease of Use	4	0.721	0.811	0.518
Perceived Usefulness	7	0.927	0.941	0.696
SMEs Resilience	4	0.712	0.819	0.532

Table 2. Fornell-Lacker Criterion (Discriminant Validity)

	Cost	Financial Literacy	Financial Resource	Government Support	PEOU	PU	SMEs Resilience
Cost	**0.768**						
Financial Literacy	0.624	**0.824**					
Financial Resource	0.320	0.376	**0.788**				
Government Support	0.319	0.336	0.560	**0.804**			
PEUO	0.380	0.392	0.283	0.350	**0.720**		
PU	0.492	0.562	0.094	0.310	0.483	**0.834**	
Resilience	0.496	0.497	0.219	0.363	0.408	0.553	**0.730**

Table 3. Outer Loadings and Cross Loadings

	Cost	Financial Literacy	Financial Resource	Government Support	PEOU	PU	Resilience
COST_3	0.796	0.518	0.282	0.184	0.312	0.357	0.351
COST_4	0.801	0.484	0.323	0.258	0.345	0.338	0.390
COST_5	0.734	0.498	0.153	0.207	0.340	0.532	0.478
COST_6	0.736	0.439	0.235	0.272	0.185	0.310	0.342
COST_7	0.768	0.443	0.241	0.317	0.253	0.321	0.321
FIN_RESOURCE1	0.147	0.194	0.699	0.362	0.330	0.005	0.145
FIN_RESOURCE2	0.199	0.200	0.724	0.392	0.325	0.045	0.159
FIN_RESOURCE3	0.150	0.134	0.719	0.430	0.315	-0.027	0.115
FIN_RESOURCE4	0.269	0.296	0.863	0.542	0.189	0.052	0.209
FIN_RESOURCE5	0.325	0.375	0.877	0.494	0.193	0.101	0.199
FIN_RESOURCE6	0.316	0.420	0.824	0.424	0.151	0.164	0.180
FL_1	0.484	0.831	0.365	0.253	0.309	0.431	0.401
FL_2	0.524	0.849	0.329	0.268	0.312	0.412	0.357
FL_3	0.425	0.846	0.317	0.310	0.295	0.461	0.406
FL_4	0.523	0.867	0.327	0.277	0.345	0.515	0.434
FL_5	0.487	0.789	0.267	0.269	0.353	0.514	0.413
FL_6	0.613	0.755	0.252	0.285	0.318	0.446	0.440
GOV_SUPPORT1	0.319	0.303	0.497	0.828	0.306	0.272	0.380
GOV_SUPPORT2	0.218	0.202	0.460	0.800	0.265	0.169	0.285
GOV_SUPPORT3	0.207	0.298	0.409	0.760	0.223	0.251	0.307
GOV_SUPPORT4	0.302	0.314	0.504	0.792	0.303	0.247	0.239

	Cost	Financial Literacy	Financial Resource	Government Support	PEOU	PU	Resilience
GOV_SUPPORT5	0.269	0.257	0.403	0.809	0.313	0.243	0.255
GOV_SUPPORT6	0.204	0.237	0.404	0.809	0.292	0.290	0.264
GOV_SUPPORT7	0.264	0.271	0.464	0.829	0.271	0.271	0.269
PEOU_1	0.213	0.282	0.215	0.263	0.714	0.269	0.232
PEOU_3	0.397	0.361	0.214	0.308	0.786	0.516	0.417
PEOU_4	0.201	0.207	0.117	0.158	0.702	0.268	0.208
PEOU_5	0.174	0.218	0.296	0.245	0.674	0.183	0.215
PU_1	0.410	0.449	0.101	0.298	0.420	0.841	0.513
PU_2	0.385	0.474	0.077	0.288	0.390	0.858	0.448
PU_3	0.408	0.495	0.089	0.257	0.397	0.815	0.373
PU_4	0.456	0.501	0.131	0.324	0.440	0.856	0.531
PU_5	0.350	0.409	-0.028	0.179	0.317	0.820	0.417
PU_6	0.416	0.461	0.052	0.180	0.388	0.795	0.441
PU_7	0.437	0.488	0.103	0.263	0.449	0.851	0.478
RESILIENCE_1	0.244	0.303	0.216	0.335	0.246	0.280	0.655
RESILIENCE_3	0.280	0.269	0.219	0.344	0.265	0.308	0.679
RESILIENCE_8	0.412	0.402	0.099	0.234	0.356	0.497	0.786
RESILIENCE_9	0.466	0.447	0.146	0.200	0.309	0.479	0.788

The Structural Model Analysis (Inner Model) Result

After it is said that all variables are said to be valid and reliable, the next stage is to conduct a hypothesis test by looking at the value of the coefficient determinant (R2) (Chin, 1998b) to measure the variance described in the yield variable, by the predictor variable. After that, the relevance of the measurement model will be done by looking at the value of β and T Statistics (Hair et al., 2014, 2016; Ringle et al., 2018). In addition, it refers to Hair et al. (2014). The study also analyzed the predictive relevance values (Q2) and the effect size (f2).

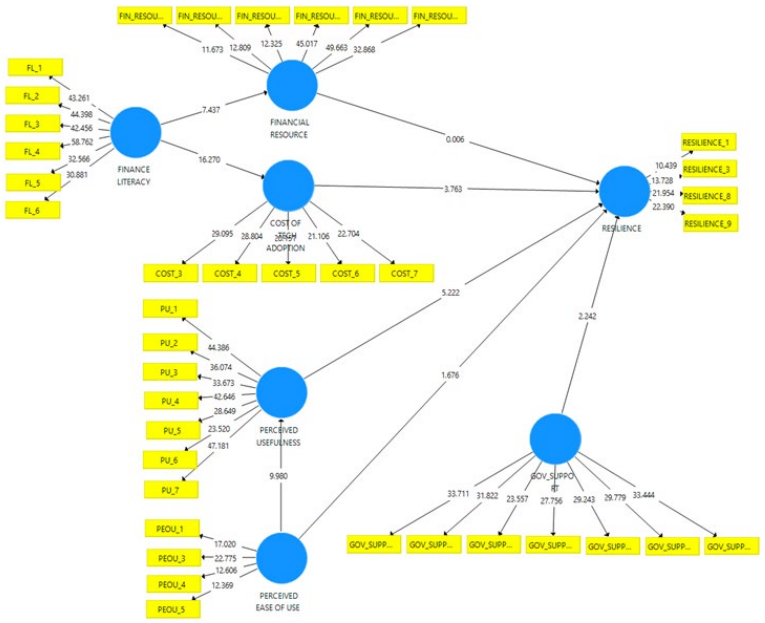


Figure 2. Structural Model

Based on table 4, the adjusted R2 value of this study for the MSME business resilience variable was 0.394, or 39.4% variance of the business resilience variable, which can be explained by financial resources, cost of technology adoption, perceived usefulness, and government support for the financial resource variable. The R2 is 0.139, or 13.9% variance of financial resources, which can be explained by financial literacy. For the cost of technology adoption variable, the R2 is 0.387 or 38.7%, and the variance of the cost of technology adoption variable could be explained by financial literacy. For the P.U. variable, the R2 is 0.233 or 23.1%, and the variance of P.U. can be explained by Perceived Ease of Use. The R2 figure for the MSME business resilience variable, the cost of technology adoption, and E.P. in this study are categorized as vital, while the R2 PU variable is classified as moderate, and the financial resource variable is typed as weak (Hair et al., 2014).

Predictive relevance (Q2) measurements in this study were carried out using blindfolding procedures against endogenous variables in reflective measurements (Hair et al., 2014). Meanwhile, the blindfolding process is carried out using the omission distance (O.D.) of seven settings (Hair et al., 2011). For a structural model to be said to have good predictive power, the value of Q2 must be greater than 0 (Hair et al., 2014). Table 5 shows Q2 values of 0.199 for MSME business resilience, Q2 values of 0.076 for financial resource variables, Q2 values of 0.224 for the cost of technology adoption variables, and Q2 values of 0.159 for perceived usefulness variables. All endogenous variable Q2 values are more significant than 0, so it can be said that the research model has good predictive relevance.

Table 4. Path Analysis

Path Hypothesis		(β)	T Statistic	P Value	Decision	R2	f2	Q2
H1	Financial Literacy→ Financial Resource	0.376	7.437	0.000	Accepted	0.139	0.165	0.076
H2	Financial Literacy→ Cost	0.624	16.270	0.000	Accepted	0.387	0.637	0.224
H5	PEOU → PU	0.483	9.980	0.000	Accepted	0.231	0.304	0.159
H3	Financial Resource → Resilience	0.000	0.006	0.995	Rejected	0.394	0.000	0.199
H4	Cost → Resilience	0.245	3.763	0.000	Accepted		0.068	
H6	PEOU → Resilience	0.100	1.676	0.094	Rejected		0.012	
H7	PU → Resilience	0.339	5.222	0.000	Accepted		0.118	
H8	Government Support → Resilience	0.145	2.242	0.025	Accepted		0.022	

Hypothesis testing in the study was carried out by looking at the β and T values of Statistics (Chin, 1998a). Based on table 4, it was overall found that 6 of the 8 hypotheses in the study were accepted. In terms of financial factors, it was found that hypotheses 1 and hypothesis 2 were accepted. In other words, the level of financial literacy of MSME owners has a positive effect on financial resources (β = 0.376, T = 7,437, P = 0.000, with a moderate effect measure where f2 = 0.165) and on the cost of technology adoption (β = 0.624, T = 16,270, P = 0.000, with a large effect size where f2 = 0.637). Furthermore, the study found that financial resources did not affect MSMEs' business resilience (β=0,000, T=0,006, P=0,995, f2=0,000). At the same time, the cost of technology adoption positively affected the flexibility of MSMEs in Indonesia during the pandemic (β=0.245, T=3,763, P=0.000, with a small effect size where f2=0.068). In other words, H3 is rejected, while H4 is accepted.

In terms of technology acceptance, based on table 5, the H5 and H7 hypotheses are accepted, while the H6 hypothesis is rejected. Thus, perceived ease of use positively affects the formation of perceived usefulness (β =0.483, T=9.980, P=0.000, with a moderate effect measure of f2=0.304). Meanwhile, in terms of direct influence, only perceived usefulness has a positive effect on MSMEs' business resilience (β = 0.339, T =

5,222, P = 0.000, with a small effect size where f2 = 0.118), while perceived ease of use has no influence (β = 0.100, T = 1.676, P = 0.094, with a small effect size where f2 = 0.012).

Lastly, from the environmental side, based on table 5, it was found that H8 was accepted. In other words, the government's support during the pandemic positively affected MSME business resilience (β =0.145, T=2,242, P=0.025, with a small effect size where f2=0.022).

5. Discussion

This study aims to analyze the drivers of MSMEs' business resilience in Indonesia during the Covid-19 crisis, which is seen from financial, technology acceptance, and external environmental factors. The study results show that financial literacy positively affects financial resources and the cost of technology adoption in terms of financial factors. This result is in line with the results of previous studies conducted by Hossain (2020). Financial literacy is positively linked to the awareness of various financial resources and the ability to identify the right financial resources for the business (Ye & Kulathunga, 2019), helping organizations survive in challenging economic conditions (Winarsih et al., 2020). However, only technology adoption costs directly affect MSMEs' business resilience, while financial resources have no influence. This insignificant influence occurs in the government's pro-active efforts in providing access to financial resources to MSMEs to survive and grow during the crisis; the fiscal stimulus policy offered by the government even institutionally opens and facilitates access to funding from banking institutions that before the pandemic was complex for MSMEs to access due to the absence of collateral and complicated administrative processes.

Perceived ease of use positively affects perceived usefulness in terms of technological factors. However, in terms of direct effect, only perceived usefulness positively affects MSMEs' business resilience in Indonesia, while perceived ease of use has no effect. In terms of technological factors, based on the TAM framework, PEOU and P.U. are the main determinants for adopting new technologies (Davis, 1989). Perceived ease of use does not affect MSMEs' business resilience regarding technology acceptance. This aligns with the study's findings (Herzallah & Mukhtar, 2016). This can happen because the internet's use for daily needs is very high. Technological literacy is higher than in previous years, so people are accustomed to using various applications for daily needs (Kusumadewi et al., 2021). Furthermore, in line with the results of research from Patma et al. (2021), and Selase et al. (2019), e-commerce technology, both in the form of marketplaces and social media, realizes SMEs accelerated business performance growth as it expands market and customer reach, increases sales volume and increases customer satisfaction.

Regarding environmental factors, variable government support positively affects MSMEs' business resilience in Indonesia. This result is in line with the results of research conducted by Hidayat et al. (2020), which shows that government support in the form of capital assistance (BLT UMKM), low credit interest rates, and relaxation of the term of payment credits and taxes help MSMEs to survive amid a pandemic full of uncertainty when it ends.

6. Conclusion

Previous research has shown that MSMEs are the most vulnerable form of organization to crises (Sullivan-Taylor & Branicki, 2011). This study highlights how financial aspects, technology acceptance factors, and government support affect the MSME flexibility level in Indonesia during the Covid-19 pandemic.

From the financial aspect, the level of financial literacy of MSME owners has a positive effect on the cost of adopting technology which is considered a strategic investment decision to deal with the crisis. In terms of technology, perceived usefulness positively affects business resilience. The use of e-commerce in various forms, such as marketplaces and social media, encourages MSMEs to generate new business ideas and increase market coverage leading to increased resilience to meet the challenges caused by COVID-19. Furthermore, government support positively affects business resilience, especially in financial incentives for MSMEs.

This research has academic and practical implications. First, from the financial side, the results of this study can be used by decision-makers, both business owners and policymakers. For business owners, the results of this study can be used to increase absorptive capacity by improving financial literacy skills to help crucial financial decision-making processes and increasing the role of technology in creating value. Moreover, the government can work with formal financial institutions, Fintech, and universities to actively open access to financial knowledge and literacy to MSME owners and managers to improve their ability to identify and capture business opportunities by making appropriate financial decisions. In terms of policymaking, government intervention can help MSMEs reconfigure financial management capabilities (capital, cash flow management, and credit management) to keep their businesses running during the crisis.

Second, in terms of technology acceptance factors, the results of this study can be used by MSMEs in developing countries to improve their digital knowledge and skills to absorb the magnitude of the benefits provided by internet technology for business performance. Given the level of adoption of MSME technology that still exists at an early stage, the results of this study can be used by stakeholders, both governments and universities, to help MSMEs improve their digital marketing capabilities, not only to survive during the pandemic but to accelerate business growth in the future. Finally, in terms of the external environment, the government can use this research to evaluate financial and non-financial support schemes that are effectively implemented in crisis conditions as learning for the future, which can ultimately help achieve government financial resilience (Barbera et al., 2017).

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