

The Influence of TOE FRAMEWORK on Social Media Adoption to Improve MSME Performance during the COVID-19 Pandemic

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Abstract. Micro, Small and Medium Enterprises (MSME) play an important role in the Indonesian economy. The large number of MSME causes MSME to support the Indonesian economy. The Covid-19 pandemic that occurred in Indonesia had an impact on the Indonesian economy. The Covid-19 outbreak has resulted in several businesses experiencing a decline due to the declining Indonesian economy. The use of social media can help businesses in terms of marketing. Factors that can influence the adoption of social media by SME are technological, organizational and environmental factors. Factors that influence the adoption of social media can be seen by conducting a survey on MSME and using the PLS-SEM method. The results of the research conducted, technological factors are the most influential factors in the adoption of social media. The recommendations given are recommendations to increase social media adoption and strategies to improve MSME performance.

INTRODUCTION

Micro, small and medium enterprises are the main actors of the Indonesian economy. The contribution of micro, small and medium enterprises to Gross Domestic Product in Indonesia is about 60%. Micro, Small and Medium Enterprises (MSME) play an important role in anticipating the future economy. According to data from the Central Statistics Agency, the number of MSME spread across Indonesia reached 64 million and 99.9% of its efforts supported the Indonesian economy[1]. Indonesia's economy is currently looking at the results of the Central Statistics Agency, Tauhid Ahmad as Executive Director of the Institute for Development of Economics and Finance said it can be expected that the Indonesian economy will fall into the category of recession due to the COVID-19 pandemic period.

The economic impact of the COVID-19 pandemic is also experienced by MSME in Indonesia. This was revealed based on the results of research conducted by the Indonesian Institute of Sciences (LIPI) which showed a decrease in MSME performance due to Covid-19. This shows that there needs to be a way for MSME to stay afloat in Indonesia even in the midst of pandemic conditions. One way that can be used is the use of social media as a source of marketing for MSME products. The application of digitalization will facilitate in facing the current conditions, and also facilitate the exchange of technology to MSME so that they can survive in business competition Social media that can be used for marketing products such as social media Instagram, Facebook, Twitter and others. Currently MSME have not fully implemented the use of social media to help market their products. This prompted some researchers to conduct research on the influence of technological, organizational and environmental factors on social media adoption to improve MSME performance. Research has been conducted in the United Arab Emirates [2] that examined the influence of TOE on social media adoption and its effect on MSME performance. Another study was conducted in jogja [3] to examine the technological, organizational and environmental aspects of social media adoption and the influence of adoption on social media awareness. Another study [4] examined instagram's social media use and its effect on MSME performance.

From the results of previous research, there are several different opinions. The bandwagon effect is the variable that most influences social media adoption in previous research[2]. Environmental uncertainty became one of the factors of social media adoption in the city of Jogja during the Covid-19 pandemic. In the instagram social media

adoption study [4] interactivity has a fairly strong influence on the adoption of Instagram social media. The objectives of this study are: (1) identify the influence of technology, organization, and environment on social media adoption (2) identify the influence of social media adoption on the performance of MSME (3) provide recommendations for Increase the adoption of social media.

RESEARCH METHODOLOGY

Research Methods

Partial Least Square – Structural Equation Modeling (PLS-SEM) is a method that can be used to test and analyze hypotheses in research models. Model evaluation can be done by evaluating the outer model to measure the validity and reliability of the model and evaluating the inner model to predict the causal relationship between latent variables [5].

Research Model

This study consists of 4 research hypotheses that will be tested. The research model consists of technological, organizational and environmental factors that influence social media adoption and the influence of social media adoption through MSME performance. Figure 1 shows the new research model used in the study.

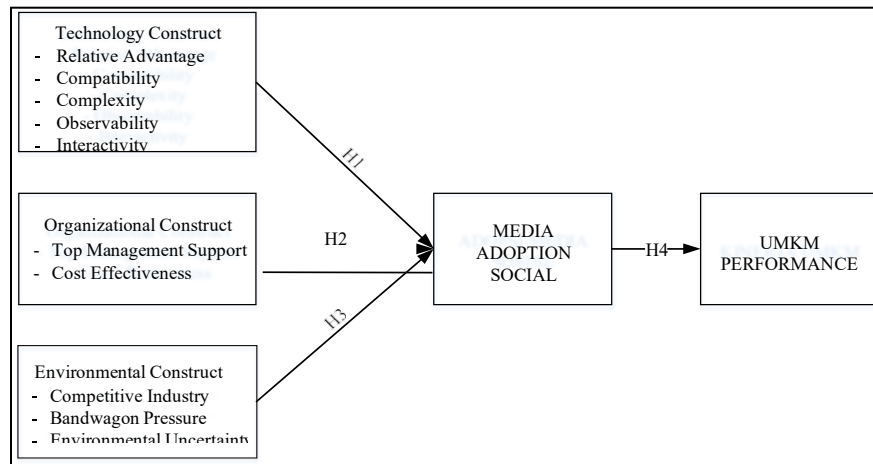


Figure 1. Research Model

The technological context is the technical knowledge necessary for the use of social media. The technological context refers to internal and external technologies that have benefits to the company. Relative excellence means the extent to which an idea or innovation is considered better than a pre-existing idea. Compatibility means whether an innovation is consistent with other technologies already used in the organization. Complexity means the extent to which innovation is perceived as difficult to use, the adoption of innovation will increase if innovation is perceived as easy to use. Observability is the extent to which the results of the application of an innovation can be seen. Interactivity is communication that occurs to elicit consumer responses.

H₁. Technology has a significant and positive influence on the adoption of social media by MSME.

Organizational context is a variety of internal organizational factors that have the potential to influence the adoption and implementation of innovation. Top management support is essential to building a supportive environment and also providing sufficient resources for innovation implementation. Cost effectiveness is the financial advantage for a company that can be gained from the adoption of an innovation.

H₂. Organizations have a significant and positive influence on the adoption of social media by MSME.

The environmental context relates to the social and business context of companies such as infrastructure, industrial

competition and customer sentiment. Competitive industry is a pressure that arises as a result of the threat of losing competitive advantage. Bandwagon effect is the phenomenon of decision making by a person or organization that is influenced by decisions taken by the majority. Environmental uncertainty consists of conditions that change very complex and rapidly.

H3. The environment has a significant and positive influence on the adoption of social media by MSME.

Various studies have found that social media adoption is identified as a positive influence on business performance. Instagram adoption has a positive effect on business performance. In the United Arab Emirates, the adoption of social media has a positive effect on the performance of SME. Relationship adoption social media and business performance occurs because social media provides benefits, influences purchasing decisions and positively impacts financial and non-financial performance.

H4. The adoption of social media has a significant and positive influence on business performance.

Data Collection

The survey was conducted by distributing questionnaires. Questionnaires are distributed online using google form to MSME in Bandung. Purposive sampling was used in this study. This sampling technique requires respondents who will fill out a questionnaire according to predetermined criteria. Of the total data, 90 data can be processed for this study.

Data Processing

The research instrument consists of 22 items adopted from the literature and adapted to the item, so that the item can be used for research. The test that can be done is testing the outer model and the inner model. Based on the results of these responses, research instruments can be tested for validity and reliability as well as outer model testing. Validity testing is divided into convergent validity and discriminant validity. Internal model testing is done to test hypotheses from between variables.

FILL

Measurement Model Assessment (Outer Model)

In the convergent validity test there are 4 invalid items, so they are omitted. Once the item is omitted, the results of the measurement of validity and reliability can be seen in Table 1 and Table 2. Based on these results, valid and reliable measurement models mean outer loading > 0.7 ; AVE > 0.5 ; the root of AVE $>$ correlation between constructs; alpha cronbach > 0.6 ; and composite reliability > 0.7 [6]. The results of the validity and reliability test can be seen in Table 1 and Table 2.

Table 1. Outer Model Calculation Results

Construct	AVE	(Root) AVE	CR	CA
Technology	0.596	0.772	0.880	0.830
Organization	0.610	0.781	0.825	0.700
Environment	0.623	0.789	0.868	0.798
Social Media Adoption	0.619	0.787	0.829	0.693
Business Performance	0.572	0.756	0.800	0.628

Table 2. Correlation Matrix Between Variables

Variable	Technology	Organization	Environment	Social Media Adoption	Business Performance
Technology	1.000				
Organization	0.526	1.000			
Environment	0.563	0.430	1.000		
Social Media Adoption	0.588	0.475	0.541	1.000	
Business Performance	0.665	0.415	0.604	0.505	1.000

Structural Model Assessment (Inner Model)

Hypothesis testing is done by calculating the values t and p-value. All hypothetical relationships are supported except H3 (t = 1.346; p-value = 0.179). H1 (t = 3.138; value p = 0.002), H2 (t = 2,899; p = 0.004) and H4 (t = 6.885; p value = 0.000). The results of the model's inner testing can be seen in Table 3, Table 4 and Table 5.

Table 3. Inner Model Test Results Based on Calculated T

Variable	T _{count}	Reference T _{count}
Technology -> The Adoption of Social Media	3.138	1.96
Organizations -> Social Media Adoption	2.899	1.96
Environment -> Social Media Adoption	1.346	1.96
Social Media Adoption -> Performance	6.885	1.96

Table 4. Inner Model Test Results Based on P-Values

Variable	P- values	Reference p-values
Technology -> The Adoption of Social Media	0.002	0.05
Organizations -> Adoption of Social Media	0.004	0.05
Environment -> Social Media Adoption	0.179	0.05
Social Media Adoption -> Performance	0.000	0.05

Table 5. Inner Model Test Results Based on Original Sample

Variable	Original Sample	Direction Relationship
Technology -> Social Media Adoption	0.43	Positive
Organizations -> Adoption of Environmental	0.292	Positive
Social Media -> Social Media Adoption	0.145	Positive
Social Media Adoption -> Performance	0.562	Positive

ANALYSIS

Based on the results of structural model measurements, technological constructs have a significant influence on social media adoption. [3]explained that MSME began using internet technology for adoption because during COVID-19 MSME could not do offline marketing due to rules of working from home and advice to stay at home. These findings are incompatible with previous research [2] which noted that the link between technology and social media adoption is irrelevant in United Arab Emirates MSME. These results show that social media is an easy to use technology, in accordance with the company's strategy and profitable for the company.

Based on the results of structural model measurements, organizations have a significant influence with the adoption of social media. [3]explained that during the COVID-19 pandemic, MSME managers work with their companies to prepare their online marketing infrastructure. Top management at their companies is looking for more knowledge about social media. Ahmad's findings [2] show that social media adoption in MSME is directed by top management. Top management support seems to have an important role in helping facilitate employees to implement social media. The cost effectiveness gained from using social media also provides an advantage for companies, as social media can

help for online marketing that has lower costs than offline marketing. Another factor that can be observed from organizational factors is the availability of good human resources to support the adoption of social media in the company.

Based on the measurement results of structural models, the environment is irrelevant to the adoption of social media. [3] found that environmental context has a significant influence on social media. The condition of sales uncertainty makes MSME managers increasingly aware of the existence of social media. [2] found that the main environmental factors that affect MSME using social media are simply the bandwagon effect. Based on the results obtained, respondents using social media were not influenced by industry competition factors, participating effects and environmental uncertainties. MSME use social media due to considerations regarding suitability with the company or because of the benefits for the company. This is supported by the significant technological factors that see the suitability of the technology adopted with the company's strategy and also the benefits that can be obtained for the company such as cost effectiveness. This can be seen as an organizational factor. Another factor that can be observed from the environment is government support, because there is currently a government movement such as MSME Go-Online which could be the influence of MSME adopting social media.

Based on the results of structural model measurements, social media adoption is relevant to business performance. Previous research explained that the adoption of social media has an impact on the performance of MSME such as increasing sales volume, number of customers, quality of service, company image which will have an impact on increasing MSME profits. Another factor that can be observed from performance is the expansion of the market that occurs.

CONCLUSION

This research discusses the influence of technology, organization and the environment on social media adoption and the influence of social media adoption on business performance. Technology and organizations are related to the adoption of social media and the adoption of social media related to business performance. The environment is not related to the adoption of social media, this may be because many companies have adopted social media related to the benefits of using technology for companies and organizational strategies or goals. Adoption of social media is done by companies not because the environment also adopts, or because of industry competition and environmental uncertainties that occur complexly and quickly. The influence of SME social media adoption on business performance can help SME cope with the impact of the COVID-19 pandemic and SME can help the country's economy.

BIBLIOGRAPHY

1. S., Sugianti, "Peran Usaha Mikro Kecil dan Menengah (UMKM) dalam Mensejahterakan Karyawan di Pusat Oleh-Oleh Mak Denok Desa Serdang Jaya Kabupaten Tanjung Jabung Barat", *Repository UIN Sulthan Thaha Saifuddin*, (2019).
2. S.Z., Ahmad, A.R.A., Bakar, and N., Ahmad, "Social Media Adoption and Its Impact On Firm Performance: The Case Of The UAE", *International Journal of Entrepreneurial Behavior & Research* (2018).
3. M.I., Effendi, D., Sugandini, and Y., Istanto, Y., "Social Media Adoption in SME Impacted by COVID-19: The TOE Model", *Journal of Asian Finance, Economics and Business*, 7 (11), pp.915-925 (2020).
4. L., Soelaiman, and A.R., Utami, "Faktor-faktor yang Mempengaruhi Adopsi Media Sosial Instagram dan Dampaknya Terhadap Kinerja UMKM", *Jurnal Muara Ilmu Ekonomi dan Bisnis*, 5 (1), pp. 124-133 (2021).
5. J.F., Hair, W.C., Black, B., Black, B.J., Babin and R.E., Anderson, *Multivariate Data Analysis (7th Edition)*
6. I., Ghazali, *Structural Equation Modeling, Metode Alternatif dengan Partial Least Square (PLS)* (Semarang : Badan Penerbit Universitas Diponegoro, 2014).