

SOCIAL COMMERCE ADOPTION TO ENHANCE SMES PERFORMANCE: TECHNOLOGY, ORGANIZATION AND ENVIRONMENT (TOE) PERSPECTIVES

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Abstract: Currently, the shift in consumer behavior has led to an increase in the average value of purchase transactions. This is an opportunity for SMEs to take advantage of the digital space for business acceleration. This study aims to explore the technological, organizational, and environmental (TOE) framework as a driving factor technological adoption. Technological factors used in this study are the benefits obtained and utilized. Then, the organizational factors tested in this study are top management support and knowledge of IT/IS employees and the last environmental factor is customer pressure and competitive pressure. This study uses a quantitative approach and survey methods to 144 SMEs. The findings in this study are perceived advantage, top management support and customer pressure have positive effect on technology adoption and have an effect on SMEs performance both on financial performance and brand performance.

Keywords: SMEs, social commerce, technological, organization and environmental (TOE)

Abstrak: Saat ini, pergeseran perilaku konsumen telah mendorong peningkatan nilai rata-rata transaksi pembelian. Hal ini menjadi peluang bagi UMKM untuk memanfaatkan ruang digital untuk akselerasi bisnis. Penelitian ini bertujuan mengeksplorasi kerangka teknologi, organisasi, dan lingkungan (TOE) sebagai faktor pendorong adopsi teknologi. Faktor teknologi yang digunakan dalam penelitian ini adalah keuntungan yang dirasakan dan kompatibilitas. Kemudian, faktor organisasi yang diuji dalam penelitian ini adalah dukungan manajemen puncak dan pengetahuan IT/SI karyawan dan terakhir faktor lingkungan adalah tekanan pelanggan dan tekanan Kompetitif. Penelitian ini menggunakan pendekatan kuantitatif dan metode survey kepada sebanyak 144 UMKM. Temuan dalam penelitian ini keuntungan yang dirasakan, dukungan manajemen puncak dan tekanan pelanggan berpengaruh positif pada adopsi teknologi serta berpengaruh terhadap peningkatan kinerja UMKM baik terhadap kinerja keuangan maupun kinerja merek.

Kata kunci: UMKM, perdagangan sosial, technological, organization and environmental (TOE)

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INTRODUCTION

Current technological developments change almost all aspects of both social interaction and the business world. The Covid-19 pandemic also affects the increase in online interactions, because people have to keep their distance, carry out their activities at home and everything related to direct interaction is switched to online. It also drives the rapid growth of social commerce (Bazi et al. 2022). Based on a survey conducted by Jakpat, social commerce is in great demand during the pandemic. This can be seen from the increase in the number of users such as Youtube, Facebook and Instagram, Twitter and Pinterest (Dihni, 2021). This is also used by companies to do business in Social commerce. The findings of research conducted by the Indonesia Stock Exchange (IDX) show that the current shift in consumer behavior has led to an increase in the average value of purchase transactions in various product categories and is carried out not only for young people but also for various age generations, namely millennials, generations Z and X (36-45 years) (Idx, 2021).

In addition, social commerce transactions during the pandemic reached USD 8 billion or around Rp. 42 trillion from various platforms, namely WhatsApp, Facebook and Instagram (Idx, 2021). Abed (2020) defined social commerce as a place where individuals not only can carry out various activities online such as collaborating and receiving advice from trusted people but also discovering products or services. This means that it can make it easier for companies to be able to promote, communicate the value of their products to their potential customers. Social commerce has generated significant economic benefits and changed the way consumers collect and process information (Kapoor et al. 2018). This is an opportunity for SMEs to take advantage of the digital space for business acceleration so that it can enhance performance of SMEs. In addition to the importance of using technology in company activities, its application is still relatively low. According to Ministry of Communication and Informatics, Indonesia has 59.2 million SMES players, but only 8%, which is around 3.79 million, utilize online platforms or utilize technology in their business processes (Kominfo, 2017). It indicates, important to conduct research related to the driving factors for SMEs in the use of technology.

The use of social commerce is an option that new companies can consider to use in building consumer relationships efficiently. Building customer relationships can be used through various media such as email, internet and call centers Facebook, Twitter, YouTube, Instagram, Snapchat, and Tumblr (Hasani et al. 2017). The importance of social commerce adoption for SMEs, research in this field is still limited (Hasani et al. 2017). Previous study conducted research regarding the factors of SMEs in technology adoption. There are several factors that significantly influence technology adoption, including organizational, individual and environmental factors. The results of the synthesis of various studies only focus on technological factors (Lina & Permatasari, 2020a) and organization, and are only limited to the intention of not testing actual use (Abed, 2020;). Research related to technology adoption has also been carried out in Jordan by expanding the Technology Acceptance Model theory (Al-Dwairi, 2017), and Technological Organization and Environment (TOE) in startup company (Hasani et al. 2017) then, from the perspective of Diffusion of Technology theory (DOI) in specific industry (Lina & Permatasari, 2020b). However previous research did not examine the consequences of technology adoption (Chen et al. 2021).

Understanding the role of individual factors for small businesses (<20 employees) is also very important. Furthermore, environmental factors also receive less attention and research still needs to be carried out, especially in developing countries (Olanrewaju et al. 2020), besides the importance of social commerce adoption for SMEs and limited empirical research.

Specifically, this study explores the technological, organization, and environmental (TOE) framework as the driving factors for the adoption of social commerce. Technological factors used in the research are Perceived advantage and Compatibility. Then, the organizational factors in this study are Top management support and IT/IS knowledge of employees and finally the environmental factors are Customer pressure and Competitive pressure. This study aims to examining how the influence of technological, organization, and environmental (TOE) on the use of technology and its effect on performance and determine the key factors that most dominantly affect performance. In addition, this research also contributes to expanding the literature on technology adoption by SMEs and brand and financial performance which has not been widely studied in Indonesia.

METHODS

This research is a quantitative research using a survey technique with the help of a questionnaire. The criteria for selecting the sample used non-probability sampling with purposive sampling. The sample criteria of this research are SMEs that use technology and Social Commerce in their business processes. The distribution of questionnaires is carried out in two ways both through online and offline forms to 300 SMEs, only 144 who meet the criteria.

The survey in this study contains instruments adapted from previous research, on the variables Perceived Advantage, Compatible (Moore & Benbasat, 1991), Top Management Support (Wu et al. 2003) and employee IT / IS Knowledge (Wu et al. 2003) Competitive pressure Adapted from (Sophonthummapharn, 2009) Technology Adoption (Viswanath Venkatesh, Michael G. Morris, 2003) and financial performance and brand performance in adaptations of (Odoom et al. 2017) and (Ainin et al. 2015). The research framework is described in Figure 1.

Hypothesis Development

The first technological factor used in this research is perceived advantage, which is one of the characteristics of technology which is defined as a characteristic that makes a product or service better than others in potential customer perspectives (Moore & Benbasat, 1991). Social Commerce was enabling two-way

communication with customers enabling employees to respond to customers anytime, anywhere and increase consumer experience. Thus, perceived advantage is an important factor for SMEs to make decisions because companies can get benefits such as ease of communication with customers, ease of work then increase productivity. The research findings of (Ahani et al. 2017; Chen et al. 2021) prove that perceived advantage has a positive effect on technology adoption. The hypothesis for this research is formed as follows:

H1: Perceived Advantage Has a Positive Effect on Technology Adoption in SMEs

The second technological factor is compatibility. Compatibility is extent to which a new technology or innovation is in accordance with the needs of the company that uses it (Moore & Benbasat, 1991). Social commerce such as Facebook and Twitter are very compatible with the existing infrastructure because the technology is very simple and easy to adopt by all companies, both large and SMEs (Lina & Permatasari, 2020a). When a technology, in this case Social Commerce, can meet the needs of SMEs such as helping with promotions and increasing sales, SMEs can use Social Commerce. Finding various studies prove that compatibility has a positive effect on technology adoption (Ainin et al. 2015; Chen et al. 2021; Lina & Permatasari, 2020a; Odoom et al. 2017). Based on that, the following hypothesis is formed:

H2: Compatibility Has a Positive Effect on Technology Adoption in SMEs

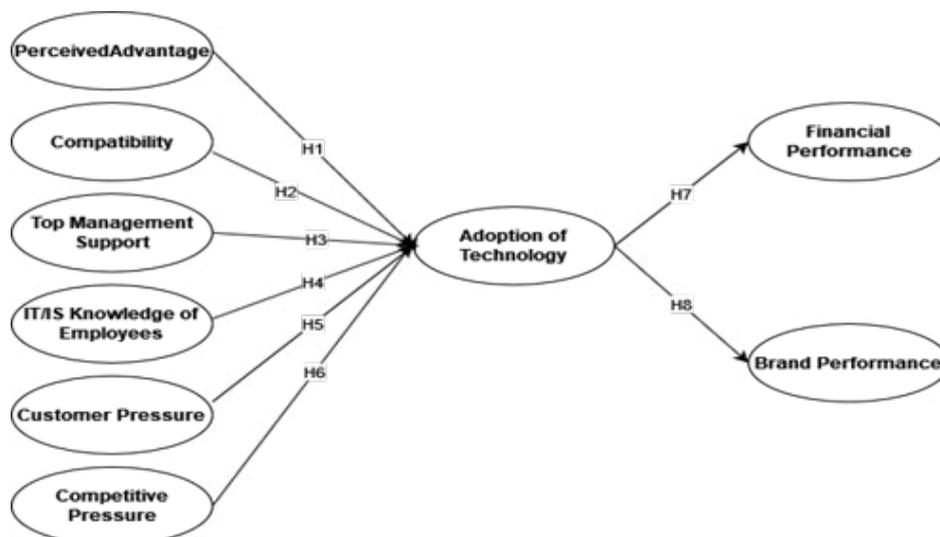


Figure 1. Research framework

According to TOE theory, the tendency of organizations to adopt a technology influenced by management support in internal business such as top management support, IT or IS knowledge of employees as organizational factors. Knowledge of IT or IS is an important resource influencing the adoption of IT/IS in SMEs because with the understanding and knowledge that employees have about technology can increase their productivity. Finding various studies also stated that the adoption of an innovation is positively influenced by superior support (Ahani et al. 2017; Chen et al. 2021). Based on that, the following hypothesis is formed:

H3: Top Management Support Has a Positive Effect on Technology Adoption in SMEs

H4: IT/IS Knowledge of Employees Has a Positive Effect on Technology Adoption in SMEs

In addition, environmental factors refer to the environmental conditions in which a business run. The first environmental factor is customer pressure. Customer pressure defined as customer's ability to put the organization under pressure that can affect customer sensitivity to price changes made by SMEs (Ahani et al. 2017). Customer pressure is considered as a customer demand that encourages businesses to carry out certain business practices (Wu et al. 2003). Currently the internet makes it easier for customers to interact with businesses such as online customer service and order tracking, as well as updates via e-mail, this encourages businesses to carry out these practices to make it easier for consumers. A company or business of course aims to meet consumer desires. When the use of technology is one way that companies can meet customer expectations and needs well, of course companies are encouraged to use technology, so that when consumer encouragement is higher, SMEs are also encouraged to adopt technology. This is in line with the research findings who have proven that customer pressure drives technology adoption (Abed, 2020; Ahani et al. 2017; Chen et al. 2021). The second environmental factor is competitive pressure. Using new technology, especially Social Commerce which is developing is a strategic advantage to be able to compete in today's business environment. Finding of Asiaei & Nor (2019) prove that competitive pressure has a positive effect on technology adoption. Organizations use technology with the aim of increasing effectiveness and thereby helping businesses increase their performance. Based on these problem, the following hypothesis is formed:

H5: Customer Pressure Has a Positive Effect on Technology Adoption in SMEs

H6: Competitive Pressure Has a Positive Effect on Technology Adoption in SMEs

The use of social commerce has a customer-oriented process driving increased sales performance within the organization (Ruokolainen & Aarikka-Stenroos, 2016). This is in line with the research findings who have proven the use of social media technology has a positive effect on performance. (Lina & Permatasari, 2020; Abbad et al. 2022 ; Saadeghvaziri & Hosseini, 2011). So, when organizations or SMEs use Social Commerce, it can have a positive effect in terms of improving financial and non-financial performance, especially brand performance.

H7: Technology Adoption Has a Positive Effect on Improving Brand Performance in SMEs.

H8: Adoption of Technology Has a Positive Effect on Improving Financial Performance in SMEs.

RESULTS

Respondent Profile

After distributing the questionnaires, it was found that SMEs in Lampung were dominated by SMEs in the culinary field as much as 48% can be seen from the Figure 2. Furthermore, the length of business operation was dominated by new businesses, namely under 1 year by 89% with a turnover of <10 million per month as much as 90% of the total respondents (Figure 3 and 4). The results of this survey indicate that SMEs in Lampung are still classified as new businesses. According to the research objective to prove whether this new business is proven to be able to improve performance after adopting social commerce.

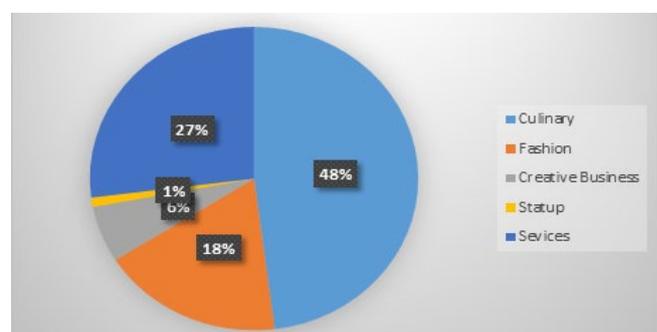


Figure 2. Business type

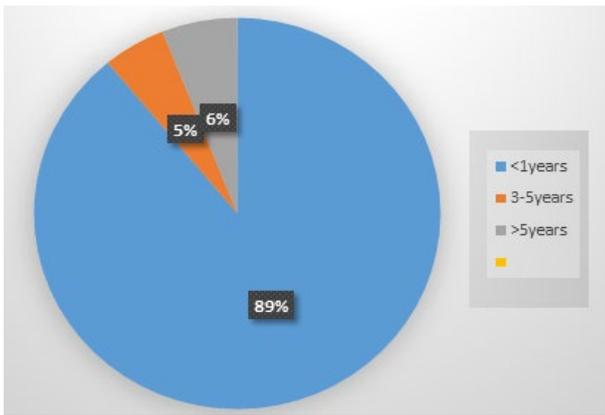


Figure 3. Length of business operation

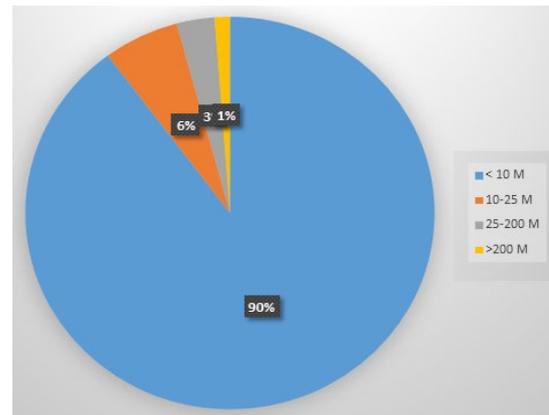


Figure 4. Revenue

Measurement Reliability and Validity

Testing the validity of this study is seen from the value of Average variances extracted (AVE), and also the reliability of looking at composite reliability which can be seen in Table 1. Based on the results of testing the Composite Reliability and Average variances extracted in Table 1, all the instruments in the study have met the criteria, meaning that the instrument is said to be valid and reliable.

Structural Model Assessment

The next step is to test the hypothesis using the SEM-PLS 7.0, the results of the technology factor test, hypothesis 1 has a P-value <.01 with a value of 0.36 meaning that Perceived advantage has a positive effect on technology adoption in SMEs (H1 is supported). In line with the research findings, Perceived advantage has a positive effect on technology adoption in China. (Chen et al. 2021) the disruptive achievements of artificial intelligence (AI. Testing hypothesis 2 has a P-value of 0.33 with a value of -0.44, meaning that Compatibility does not have a positive effect on technology adoption in SMEs (H2 is not supported). This is supported by previous research that in the context of e-commerce for B2B, Compatibility has no effect on technology adoption (Ocloo et al. 2018).

The results of hypothesis 3 has a P-value <0.01 with a value of 0.19, meaning that top management support has a positive effect on technology adoption in SMEs (H3 is supported). In line with the research findings which

states that top management support plays an important role in technology adoption (Asiaei & Nor, 2019; Ocloo et al. 2018). Result of testing hypothesis 4 has a P-value of .033 with a value of .044 meaning that IT/IS knowledge of employees has no effect on technology adoption in SMEs (H4 is not supported). In line with the research findings (Ocloo et al. 2018). This indicates that the decision to use technology in SMEs is not influenced by employees. Furthermore, environmental factor testing in hypothesis 5 has a P-value <0.25 with a value of 0.46, meaning that customer pressure has a positive effect on technology adoption in SMEs (H5 is not supported). This research contradicts (Abed, 2020) research. Testing hypothesis 6 has a P-value <0.01 with a value of 0.24 meaning that competitive pressure has a positive effect on technology adoption in SMEs (H6 is supported). This research in line with Asiaei & Nor (2019) finding.

Testing of hypotheses 7 and 8 also has a P-value <0.01 with a value of 0.76 and Hypothesis 8 of 0.75, meaning that technology adoption has a positive effect both on improving SMES brand performance and SMES financial performance (H7 and H8 are supported). The results of this study are in line with the findings in the study of (Narangajavana Kaosiri et al. 2019; Wang et al. 2016; Abbad et al. 2022) which states that social commerce technologies such as Facebook have a positive impact on customer-oriented processes then affect brand performance and financial performance. The summary of hypothesis testing can be seen in the Table 2.

Table 1. Reliability and validity values

	PA	CM	TMS	IK	CP	COM	AT	BP	FP
Composite Reliability	0.902	0.897	0.909	0.924	0.877	0.792	0.916	0.906	0.955
Average variances extracted	0.546	0.743	0.626	0.801	0.642	0.656	0.785	0.548	0.876

PA: Perceived Advantage, CM: Compatibility, TMS: Top Management Support, IK: IT/IS Knowledge Of Employees, CP: Customer Pressure, COM: Competitive Pressure, AT: Adoption Of Technology, BP: Brand Performances, FP: Financial Performance

Table 2. Summary of hypothesis testing

Hypothesis	P-Value	Result
H1: Perceived Advantage Has a Positive Effect on Technology Adoption in SMEs	<0.01	Supported
H2: Compatibility Has a Positive Effect on Technology Adoption in SMEs	0.33	Not Supported
H3: Top Management Support Has a Positive Effect on Technology Adoption in SMEs	<0.01	Supported
H4: IT/IS Knowledge of Employees Has a Positive Effect on Technology Adoption in SMEs	0.33	Not Supported
H5: Customer Pressure Has a Positive Effect on Technology Adoption in SMEs	0.25	Not Supported
H6: Competitive Pressure Has a Positive Effect on Technology Adoption in SMEs	<0.01	Supported
H7: Technology Adoption Has A Positive Effect on Improving Brand Performance in SMEs.	<0.01	Supported
H8: Adoption of Technology Has A Positive Effect on Improving Financial Performance in SMEs	<0.01	Supported

Managerial Implications

The findings of this study can contribute to increasing the literature on social media marketing that can be used to improve the performance of SMEs. Finding of this research prove technological factor such as perceived advantages is the most influencing factor for SMEs in adopting technology then affect performances of SMEs. Then from organizational factor, top management support has a positive effect on technology adoption in SMEs. This means that SMEs owners and managers play an important role in SMEs decision-making in adopting technology in this case social commerce. The, for Environment Factor, competitors encourages SMEs to adopt technology.

Theoretically, the adoption of technology such as Social Commerce has proven to be able to help SMEs in improving their performance. SMEs have an important role in the economy and have the potential to continue to be improved in encouraging national economic growth. This can be one way to encourage the growth of SMEs, namely by digitizing SMEs which ultimately can strengthen the production process, product processing, marketing, and financing digitally. Therefore, the government through various programs must carry out literacy in the use of digital media both in its business processes such as processing to promotion, targeting consumers and communication between consumers and sellers through various Social Commerce which can ultimately affect brand performance and financial

performance. The increase in income is not the only measure of the success of SMEs in their business, but the stability of the financial system also needs to be considered. The government also strongly encourages the development of SMEs because it is important in maintaining the stability of the State financial system. Therefore, it is necessary to expand SMES access to digital-based payment products and services which ultimately strengthens the smoothness of transactions and payment systems.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This research found that the technological factor that affects the adoption of social commerce is perceived advantage. This indicates that technology, especially social commerce as a communication channel that allows two-way communication with customers, can help employees respond to customers anytime and anywhere. Thus, it is very useful for SMEs in maintaining customer relationships. Compatibility in this study has no effect on technology adoption, meaning that Social Commerce is considered not to have fulfilled the total SMES business procedures, this can be influenced by the type of existing SMEs. On organizational factors, top management support and IT/IS have an influence on technology adoption. In addition to environmental factors, competitive pressure that affects technology

adoption. This means that consumer encouragement is not an important driving factor in influencing SMEs in adopting technology, but competitors' encouragement is an environmental factor that encourages SMEs to adopt technology. Furthermore, technology adoption has an effect on both brand performance and financial performance. The use of technology such as social commerce certainly offers conveniences such as two-way communication, customer targeting and low costs. Low promotional costs can reduce costs so they can be diverted in increasing revenue. The results of this study prove that technology such as social commerce is very useful in terms of customer relations and ultimately improves performance for SMEs help companies to have a competitive advantage over competitors.

Recommendations

This study cannot be separated from the limitations of the study, this study only tested technological factors using the TOE Framework and SMEs in Bandar Lampung, Indonesia as respondent. Further research can replicate this research by re-examine the TOE framework in a wider context and respondents not only in Lampung, Indonesia. In addition, the respondents of this research are still dominated by SMEs and technology-based companies (Startup) only get 1% from total respondent. Therefore, further research can examine startups as well as other factors related to the startup environment, such as venture capital support and business incubation.

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