

Social Computing: A Model of Technology Acceptance to Maintain Micro Enterprise Business During Covid-19

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ABSTRACT

MSMEs are *entrepreneurship growth channels* whose existence is recognized as the backbone of national economic development. However, not all MSMEs use technological developments in their business processes. Weak individual skills and expertise as a result of weak mastery of Science and Technology (IPTEK) in a general sense and technological mastery of related products and services in a specific sense. This has an impact on the acceptance of MSME actors for the existence of technology for business continuity, therefore this study aims to see how social computing can affect the technology acceptance model by micro-entrepreneurs in maintaining business. This research is a qualitative research with a phenomenological design. The object of this research is the five people of Padang City micro-entrepreneurs, selected *purposively* with *snowball sampling*. Data was collected by means of in-depth interviews and naturalistic observations. This study uses data triangulation to test the validity of the data. The results of this study found that technological efficiency can improve business performance. Besides, the use of technology is able to make the effectiveness of business continuity. The use of technology is also user-friendly when used by users. This study provides implications regarding *social computing* that occurs between business actors and technology adoption that affects business actors in accepting technology for business resilience.

Keywords:

Technology Acceptance Model (TAM), Social Computing, Social Influence Model, Micro Enterprise, Business Resilience

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1. Introduction

MSMEs are a channel for *entrepreneurial growth* that never stops. As a developing country, the existence of MSMEs in Indonesia is recognized as the backbone of national economic development. Based on data from the Ministry of Cooperatives and SMEs, the number of MSMEs currently reaches 64.2 million and is able to contribute to Gross Domestic Product of 61.7% (equivalent to 8,573.89 trillion rupiah) (Tan et al., 2021). However, the limited resources owned by the MSME Group in facing various challenges, make the MSME group must be able to adapt to environmental changes and technological adaptations that occur (Zarghami, 2021). The health crisis, namely the COVID-19 pandemic, in March 2020 shook the economy in Indonesia.

Therefore, at this time the government is trying to improve the economy which is weakening due to the covid-19 pandemic, one of which is by increasing and innovating on MSMEs. Changing lifestyles due to the COVID-19 pandemic, such as *online shopping* and direct payments via *fintech platforms*, have become a new habit for Indonesians today. So that requires MSMEs to be able to use the sophistication of digital technology for the sustainability of MSMEs.

Based on data from the Ministry of Cooperatives and MSMEs in 2022, the number of MSMEs in Padang City is 93,648 MSMEs. This proves that the number of SMEs in the city of Padang has grown rapidly and can improve the economy of the city of Padang. However, not all MSMEs in Padang City use the development of digital technology in their business processes. The large number of MSME actors who run businesses traditionally, making it difficult for MSME actors to balance changes in business behavior that occurred during the COVID-19 pandemic, which were often *online*. This change in behavior requires sellers and buyers to be aware of the importance of digital technology during the COVID-19 pandemic and will continue and become a habit for business actors. Therefore, business actors must change business patterns such as buying and selling in a *modern* way through digital technology by utilizing *marketplace* or *e-commerce applications* on *smartphones*.

The low productivity and ability to innovate in the context of modifying or diversifying potential products available locally in Padang City with the help of digital technology causes the income of business actors to be relatively small. This is because there are still weak individual skills and skills as a result of weak mastery of Science and Technology (IPTEK) in a general sense and mastery of technology related products and services in a special sense (Candra et al., 2020). This has an impact on the acceptance of MSME actors in the city of Padang towards the existence of technology for business continuity.

Along with the development of digital technology that is increasingly easy to use, it encourages business actors to utilize digital technology in business continuity, with the hope of helping businesses run in order to survive the COVID-19 pandemic. The *technology acceptance model* (TAM) found by Davis (1989) reveals that there are two very relevant factors in explaining user behavior towards technology, namely *perceived usefulness* and *perceived ease of use*. *Perceived usefulness* (PU) explains that the user's acceptance of information technology is caused by the user's belief in the benefits and conveniences obtained from the existence of a technology. Meanwhile, *perceived ease of use* is defined as "the extent to which potential users expect the target to be free from effort" (Davis, 1989) in (Shin et al., 2022). *Perceived usefulness* and *perceived ease of use* are key constructs that show how users' perceptions of technology have been influenced by external variables and determine the actual technology adoption by users (Davis, 1989; Choi et al., 2017) in (Shin et al., 2022). Belief in the use of an object (ie information technology) can influence behavior. *Perceived usefulness* and *perceived ease of use* form user confidence in determining the attitude of acceptance of technology. Cognitive belief in an object will encourage desire and then desire is manifested through behavior. Self-learning behavior (self-taught) will have an impact on user motivation in learning technology to solve business problems that users feel. This is because it is easy to get learning materials through virtual simulations from videos available *online* which provide a hands-on and practical learning experience (Estriegana et al., 2019). The use of technology can provide users with abundant information and there are social influences that influence users to accept technology adoption (Rodríguez-espíndola et al., 2022). The ease of technology has an impact on improving user performance (Beom et al., 2022). So that using technology can achieve sustainable success for the businesses that users are undertaking (Zhong et al., 2021).

The basic theories that explain why someone has confidence in using a technology, namely *theories of social presence*, *social influence*, and *social informing processing*. *Social presence theory* explains the ability of the media to provide the psychological presence of the message sender [(Kang & Kim, 2022); (Nadeem et al., 2020)]. Psychological presence is present through information that includes facial expressions, direction of sight, body posture, clothing and other nonverbal cues from the sender of the message. *Social presence theory* explains that performance will increase if social presence in a media is adjusted to the characteristics of the communication goals to be achieved (Liu & Wei, 2021). Another factor that is closely related to user confidence in technology is *social influence*. Social information management theory states that individual communication attitudes and behavior are influenced by social context. Meanwhile, *social information processing* explains how people know each other *online* without cues (*nonverbal*

communication) and how they develop and manage relationships in a computer-mediated environment (Walther, 1992) in (Galvin et al., 2018).

Social informing processing gives rise to innovations that combine humans with the internet, networks, and communication technology. So as to produce a new *platform* in the form of social and business networks, community formation, and communication known as *social computing*. *Social computing* is an intra-group social and business action practiced through group consensus, group cooperation, and group authority, where such action is made possible through the mediation of information technology, and where group interactions cause members to conform and influence others to join. groups (Vannoy & Palvia, 2010). Based on the description above, this study aims to see how social computing can affect the technology acceptance model by micro-entrepreneurs in maintaining their business.

2. Methods

This research is a non-positivism research or also called a subjective qualitative research. This study uses a phenomenological research design. The object of this research is Padang City micro business actors who were selected by *purposive sampling* with *snowball sampling*. From the selection of research objects, five informants were obtained with the following criteria: (1) micro business actors who are young or young; (2) micro/business actors who use payment systems with e-wallet in the form of shopeepay, gopay, ovo, funds, and Qris; (3) micro business actors/employees who are classified as currently in or involved in the activities under study; (4) micro business actors/employees who are willing and have sufficient time to be asked for information. Data was collected by means of in-depth interviews and naturalistic observations. Data analysis is done by organizing the data, breaking it down into units, synthesizing it, arranging it into a pattern, choosing what is important and what will be studied and drawing conclusions. Using data triangulation to test the validity of the data.

3. Results

Technological efficiency to improve business performance

The use of digital technology can improve the performance of micro business actors. This is acknowledged by the business actor "Raun Case" that the use of *Microsoft Excel* in the process of recording and calculating operating profit is easier to do. This is because the features that exist in *Microsoft Excel* are equipped with formulas that can help the process of recording and calculating profits. *Microsoft Excel* formulas can be self-taught. So that business people can easily understand the use of *Microsoft Excel* and make their work more efficient. This was revealed by the business actor "Raun Case" that he had mastered the *basic* use of *Microsoft Excel*, in the interview excerpt below:

Actually, Diah is learning on her own, self-taught and while her business is running, because Hafiz himself already understands the basics of using Microsoft Excel, so it's quite helpful for now (Informant 1)

In addition, "Raun Case" business actors also use *Microsoft Excel* in the process of recording transactions that occur every day. *Microsoft Excel* application is also used to see the movement of the business undertaken. This is because the use of the *Microsoft Excel application* helps business actors "Raun Case", thus making work more efficient and easier. As expressed in the quote below:

because if in Excel it can be easy too, because you can use formulas in Excel so you don't make mistakes in the calculations and make work more efficient and fast too. (Informant 1)

In addition to using the *Microsoft Excel* application, the cashier application also helps improve the work of "Divi Beauty Store" business actors. The cashier application used is the *Post cashier application*. The use of the *Post cash register application* is recognized to make work faster and

more efficient. The easy-to-understand appearance of the application makes it easy for "Divi Beauty Store" business actors to use it. Business actors can input data in the form of transaction details, initial capital, cash in and cash out. This cashier application is easy to learn self-taught. In addition, there is guidance from *customer service* (CS) who is always ready to help business actors "Divi Beauty Store" in understanding the *Post cashier application*. This is expressed in the quote below:

It takes time, because there are many features that must be studied first, there is a CS number as well to ask questions about the term. And there was training related to this cashier application first, via Zoom [...] And it's also efficient for this application to be used by the deck (Informant 2)

The same thing was also expressed by "Laundry Care" employees who use the 1O1ODry cashier application for the transaction recording process at "Laundry Care". This application is a special application used for Laundry business. The use of the 1O1ODry cash register application is very helpful and makes work faster and more efficient. In addition this application can be studied self-taught As expressed in the quote below:

... we do use an application like this, to process transactions that occur, the name of the application is called the cashier "Laundry" (1O1ODry), so if a customer comes in, all you have to do is write it down and a note will come out [...] Yes deck, specifically for "Laundry" only, so usually the customer doesn't need to download the application either, and usually it's the admin who enters the transaction details like that, deck, and after the note is printed it will be sent via WhatsApp [...] Not really, because the application is easy to learn [...] Now if to support the work of this application, it really supports my brother's work as an admin...(Informant 4).

In addition, the use of the 1O1ODry cashier application can improve the performance of "Laundry Care" employees. This is because this application has user-friendly features, even though it is not an accounting or business education background. The 1O1ODry cashier application can be accessed easily through *the Playstore* and can be *downloaded* for free. As revealed in the interview excerpt below:

That's right, it's very, very helpful and makes brother's performance faster and more efficient too (Informant 4)

The Effectiveness of Using Technology on Business Continuity

Current technological developments have had a positive impact on "Raun Case" business actors. This is recognized by the "Raun Case" business actor that the use of technology such as *Shopee* can reduce marketing costs. The process of selling products through the *Shopee application* makes business actors do not need to spend money to rent a shop. The use of the *Shopee* application is "better" because it can effectively reach target customers at a relatively cheaper cost. In addition, the use of the *Shopee application* is "better" because it has a more informative and attractive *design template for customers*. As revealed in the interview excerpt below:

Well, it's very different, hafiz personally is better and better at using technology so we don't need to rent a shop, it's better to use the money for technology development so that we can produce at home. (Informant 1)

In addition, the influence of the social environment has made "Raun Case" business actors more interested in developing their business through digitalization such as *online sales*. This sales trend is

very useful for business actors, especially during the COVID-19 pandemic. As revealed in the interview excerpt below:

...this environment is also very influential on the mentality of a businessman Diah, because this environment will have an impact on the fear of the businessman as well, now there is a saying that compares it, if we mix with perfume sellers then we will catch the smell... well that's it also actually in this environment for a businessman, because if there are wrong associations then the business that has been undertaken will not be able to develop and this environment will also create a mindset for yourself like that [...] we were at the beginning of establishing this business we were role models it is dropshipajat.com, now dropshipajat.com actually sells the website the person is invited to join and that person pays[...] (Informant 1)

User Friendly Technology

marketplace applications and promotions carried out on social media. However, the current use of technology has also penetrated into the buyer's payment system when conducting transactions with business actors. Payment methods using *smartphones* such as scanning QR codes, bank transfer payments are felt to be more convenient, efficient, and safe to use. This is recognized by the "Divi Beauty Store" business actor, payments using Qris make it easier for buyers to make payments. In addition, the use of *fintech* is also often done by buyers in making payments for shopping transactions made by buyers. As revealed in the interview excerpt below:

It's actually easier to use Qris, but usually the success is tomorrow, so it's not directly on that day when the payment is made, so you have to worry about yourself personally, so to anticipate this, you'd rather ask the customers who come if you use Qris. the proof of success was sent to WhatsApp bro (Informant 2)

In addition to easy payments, the use of applications on smartphones can be easily accessed anywhere. This was revealed by business actors, using the Post cashier application, the 1010dry cashier application can be easily accessed, anytime and anywhere. This is expressed in the interview excerpt below:

And it can easily be like that, deck, because it can be carried anywhere, deck, because the application can be used on Android phones like that (Informant 2)

4. Discussion

Technological efficiency to improve business performance

The use of digital technology can improve business performance. Such as the use of *Microsoft Excel applications* for the process of recording and calculating operating income. This is because the features that exist in the *Microsoft Excel application* can assist the recording and calculation processes that are equipped with available formulas. The *Microsoft Excel application* provides interactive simulations to the *user*, in addition to recording and calculating profit activities can be studied independently by the *user* due to the availability of teaching videos on various *platforms . on line* (Estriegana et al., 2019). The existence of formulas that can be learned by self-taught makes it easy for business actors to understand the use of *Microsoft Excel applications*. Virtual simulations of videos available *online* provide a hands-on and practical learning experience. This provides an opportunity for users, as well as increasing the motivation of users to learn self-taught in solving their own problems.

The availability of videos of learning materials on technology has a high degree of flexibility and accessibility (Estriegana et al., 2019). The flexibility of the availability of teaching videos through *online media* such as *Youtube* is now familiar to the younger generation (Purwani et al., 2018). In addition, the ease of access and availability of self-taught learning videos helps business actors to focus more. So that it can improve business planning and business performance of business actors. This is because the use of the *Microsoft Excel application* is enjoyed and is very important for users to use in the business recording process for the resilience and continuity of their business. Meanwhile, the availability of easily accessible learning materials about *Microsoft Excel affect the motivation and user acceptance* of *Microsoft Excel* . (Estriegana et al., 2019). If users are not provided with information and training on technology, failure to use digital technology can hinder the success of adopting that technology (Rodríguez-espíndola et al., 2022). So it is necessary to understand the digital technology used. This aims to improve service efficiency to customers, so users must improve services in their business, one way is by using digital technology in business continuity. One example, users can improve transaction recording and payment services with advanced technology (Zhong et al., 2021). So it can be said that digital technology that is easy to use by users has an impact on improving user performance (Beom et al., 2022).

The Effectiveness of Using Technology on Business Continuity

The use of technology that is relatively simple and easy is preferred by users so that it can save business operational costs and can learn new technologies, because many users are still in the early stages of adopting technology (Zhong et al., 2021). In addition, encouragement from the social environment affects business actors in accepting today's digital technology. The influence of the social environment will shape the tendency of users to use new technology, especially if the people around the user using the same technology without any problems with maximum safety (Akinnuwesi et al., 2022). The development of technology is felt to be better and better to make the business continuity more effective. This is because the reach of technology that has generally been used by all Indonesian people. One example is the development of digital technology so that it can expand *online sales*. This matter allows sellers to find potential buyers and offer products or goods by utilizing the internet network supported by a set of electronic devices as a liaison with the internet network. Therefore, selling online using digital technology is familiar to the public, because currently the internet network has spread in almost all regions, and this internet network has been used by sellers. Therefore, it is necessary to utilize and develop technology in order to be able to carry out activities to find potential buyers and *resellers* to offer products or goods (Jimly et al., 2020).

User Friendly Technology

The use of digital technology is user-friendly. This is due to the many conveniences felt by users. One example is the payment system for transactions carried out, currently using digital technology in the form of *financial technology* such as *e-wallet* and *mobile banking* that makes it easier for users. By utilizing payment technology with mobile phones, users can complete payment transactions more easily (Zhong et al., 2021). The use of Qris in payments has ushered in a new era of electronic transaction services but the payment method with Qris has recently become one of the most popular and easiest to use payment methods (Zhong et al., 2021). In addition, the use of *fintech* is also often done by buyers to make payments in the process of shopping transactions made by buyers. *Fintech* is used as an alternative that has the potential as a source of financing for MSMEs. The implementation of this system is quite easy to be accessed and reached by creditors and debtors (Rukmana, 2022). This is due to the Covid-19 pandemic which requires buyers to carry out activities at home including shopping from home. Therefore, buyers are more likely to make payments via bank transfer via *mobile banking* which does not make business actors leave their homes. The Covid-19 pandemic

which prohibits activities outside the home, has made the government recommend smart payments through *fintech* such as using *e-wallet*, bank transfers and even the recent use of Qris. This can minimize user interaction and can prevent the spread of viruses. Therefore payment by utilizing digital technology is considered a more efficient alternative to current payment methods (Zhong et al., 2021). The use of *fintech* can be easily used by users through any mobile *platform that users use* use, without any interruption or additional cost (Djimesah et al., 2022). In addition, perceived enjoyment can directly influence users' perceptions of ease of use, attitudes, and usage intentions towards payments using technology. This confirms that users can perceive technology as easy to use if users enjoy using it and that perceived enjoyment is very important for technology acceptance (Zhong et al., 2021).

In addition, the use of the application is much more attractive to users. This is because the application is easier to use, low cost and high update method (Yang et al., 2021). The use of applications is increasingly important because it can benefit user productivity and efficiency (Ramkumar et al., 2019). The high level of accessibility in using applications makes users easily accept applications for business continuity (Estriegana et al., 2019). While the educational background in using the application is not a significant influence, this is because the application used can be easily learned and the interface is user-friendly. In using the application, it is believed that the application is useful and user-friendly, but users will not accept it until they really believe in the application (Djimesah et al., 2022). Therefore, in order to improve service efficiency and achieve sustainable success, users must increase their confidence and knowledge of the applications they use. Although the user does not have an accounting and business education background, because the application used is a relatively simple and easy application, it can be preferred by users to learn the application (Zhong et al., 2021). Therefore, users believe that using the application is useful to increase its effectiveness (Shen et al., 2022).

5. Conclusion

Innovations that occur between humans and the adoption of technology form social computing which has a positive impact on business resilience during the COVID-19 pandemic. Overall, informants use and utilize technology for the resilience of their businesses during the COVID-19 pandemic. Perceived *Usefulness* and *Perceived Ease Of Use* lead to the attitude of business actors (*Attitude Toward Using*) which is influenced by social influence and then continues to become the intentions and habits of business actors (*Behavioral Intention To Use*) to accept technology. Research results This study finds that technological efficiency can improve the business performance of business actors. Besides, there is effectiveness in the use of technology for business continuity. In addition, the use of technology is also user-friendly when used by users.

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