

Conference Paper

Application of the Technology Acceptance Model (TAM) on Post-pandemic Small Medium Enterprises by Adapting to the Marketplace

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Abstract.

The Covid-19 pandemic significantly negatively influenced on Indonesia's economic development, with 63.9% of SMEs experiencing a fall in turnover of more than 30% and only 3.8% of SMEs experiencing an increase. Around 80.6% of SMEs benefit from digital sales and marketing to keep running their business during the pandemic. This research focuses on marketplace consumers who make transactions at Shopee and Tokopedia. This study aims to provide an overview of online shopping interest in consumers through the marketplace, which of course, with the use of sales channels with marketplaces can increase sales turnover of SMEs actors. During the Covid-19 virus pandemic, SME actors must utilize the market as a means of selling and marketing because it is crucial for drawing in customers and offers numerous promotional programs like delivery, cash back, and discounts. This study's findings are anticipated to subsequently help SMEs actors employ the best strategy to enhance customer intents to shop at online retailers.

Keywords: adaptation, interest in online shopping, marketplace, small medium enterprises, technology acceptance model, post pandemic

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1. Introduction

Based on the results of the 2021 e-commerce survey in Indonesia, where from the data that has been collected from all business actors for business activities through e-commerce as of June 30, 2021, it was recorded at 25.92%. Despite the increase, companies that take orders and sell goods and services via the internet are still relatively small in Indonesia and are dominated by traditional forms of business [1]. In the survey as of June 30th, 2021, it was found that there were 74.08% of businesses that did not carry out e-commerce-based activities. Based on the survey results, it is found that most business actors have not carried out their activities through e-commerce due to several

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reasons such as being more comfortable selling offline, not interested in selling online, lack of knowledge & expertise and other reasons [1].

The covid-19 pandemic significantly impacted Indonesia's economic growth, causing 63.9% of SMEs to see a fall in turnover of more than 30% and just 3.8% of SMEs to see an increase in turnover as a result of the epidemic [2]. Steps taken by SMEs players to reduce the impact of the covid-19 pandemic include reducing the production of goods/services, reducing working hours and the number of employees, as well as sales and marketing channels. However, some SMEs players have taken steps to increase sales and marketing channels, namely utilizing digital technology as a medium to survive amid the pandemic. About 80.6% of SMEs benefit from digital sales and marketing to keep running a business during the pandemic [2].

Digital transformation for SMEs has been shown to be essential long before the COVID-19 outbreak, and this importance only grew stronger and became more apparent after the outbreak to ensure the sustainability of SMEs' businesses. SMEs must adopt this procedure as technology develops if they want to remain viable and grow [3].

This research focuses on business actors, namely SMEs that have not conducted sales and marketing based on digital technology and hereinafter referred to as traditional SMEs. Non-digital SMEs are the most impacted SMEs during the pandemic, so this research aims to provide considerations for traditional SMEs to adopt online sales and marketing in the marketplace which has an impact on increasing turnover. The considerations generated will come from SMEs players who utilize the marketplace as a sales and marketing channel. Some considerations of SMEs that have been selling online state that SMEs need to utilize the marketplace as a means of sales and marketing amid the covid-19 virus pandemic, because the marketplace plays an important role in attracting consumers, because there are many promotional programs such as shipping, cash back and discounts. SMEs players consider the marketplace important for sales because transactions are safe and easy to use (user friendly) [4].

According to research by Suleman et al., attitudes are heavily influenced by attitudes, but attitudes also have a big and considerable impact on usability, ease of use, and trust. However, it appears that trust does not influence customer attitudes when they shop online. This is a study that may be used as another example of the consistent finding in the literature that trust influences consumer decisions [5]. In Suleman's research, et al. added a risk variable, this research is useful for online shop entrepreneurs to develop effective strategies to make consumers trust and minimize risks when shopping online so that consumers have a positive attitude and then the intention to shop online [6].

The findings of this study should help SMEs players utilize the best strategy going forward to boost consumer intention to shop at online retailers. In order to perform various investigations, researchers modified models from earlier research, namely by merging and adding risk and trust variables as independent variables.

2. Literature Review

There are numerous other attempts in the literature to use TAM (basic or extended) to identify the variables that affect online buying behavior [7]. In recent years, several studies have used various combinations of variables to examine the use of internet shopping in various populations and nations [8–10].

2.1. Perceived usefulness

In TAM, Davis describes how the concept of perceived utility is used to shape inappropriate conduct. The study paradigm incorporates core TAM elements, such as relational exchange and trust, through TRA (Theory of Reasoned Action). According to the findings, there is a positive and substantial interaction between behavior and perceived benefits when applying the original TAM theory, which still includes the variables of perceived usefulness and perceived usefulness [5,11].

2.2. Perceived ease of use

A person's perception of a product's usability determines whether they believe they can quickly adapt to and comprehend it [12]. Another viewpoint defines perceived ease of use as a state in which a person thinks utilizing the internet is simple and doesn't involve much effort [13]. There are four dimensions to perceived ease of use: ease of learning, ease of usage, clarity and simplicity of understanding, and skillfulness [14].

2.3. Perceived risk

Perceived risk is assumed to be the general risk that individuals accept when using a system application [15]. Consumers perceive six different categories of risk, including time risk, social risk, physiological risk, psychological risk, and financial risk [16]. The perceived risks are broken down into five categories by Soto Acosta et al: money risk, performance risk, psychological risk, physical/privacy danger, and social risk. Financial

risk, one of the five recognized forms of risk, has the biggest influence on financial and privacy threats. This is due to the fact that consumers have little control over internet transactions [17].

2.4. Trust

Consumer trust is the readiness of a person to accept risk from another party if that party engages in behavior that negatively affects the other party, independent of their capacity to observe and exert control over that party's behavior [18]. According to prior study, trust is a component that significantly affects attitudes [6].

2.5. Attitude to online shopping

The level of consumer optimism over their readiness to shop is known as attitude, and it is thought that this attitude may provide customers additional options when it comes to where they purchase [6,19].

2.6. Intention to buy online

The purchase decision is preceded by the intention in the buyer's mind to make an online purchase transaction that was previously trusted [20]. Purchase interest is a series of processes that must be passed by consumers to make a purchase transaction for goods or services that have been based on various considerations [21].

Literature studies are conducted by researchers to compare previous research with the research to be conducted. According to earlier studies, specifically Suleman et al., usability, ease of use, and trust have a significant and considerable impact on attitudes, whereas attitudes have a strong influence on the decision itself [5]. However, it turns out that consumers' views toward online purchasing are unaffected by trust. This is a conclusion that may be used as another example of how trust affects consumer decisions according to previous research. However, Suleman et al. claimed that it is anticipated that customer views of other products in Indonesian online shopping would continue, as will any additional elements that may affect a consumer's decision to shop online [5].

Another Suleman, et al. study in the same year also stated that trust and risk factors are factors that significantly influence consumer attitudes and intentions to shop online [6]. Suleman, et al. recommends that future research can look for other variables that

form the construct of consumer attitudes towards further developing consumer attitude variables [6]. The variables of perceived ease of use, trust, and risk on attitude toward online shopping and intention to shop online are presented by Suleman et al. in this study [6]. So that in the research to be carried out, researchers present other variables that are able to form consumer attitude constructs.

In several previous studies, consumer perceptions of the use of technology that have been built include: usefulness, ease of use, and trust [5,6,22] and attitude to shop online and decision to shop online [5,6] and perceived risk [23]. Therefore, this study tries to fill the gap that exists in Suleman, et al.'s research [5,6] related to consumer perceptions on attitudes in causality modeling using other constructs.

2.7. Conceptual framework

Looking at the examination of the ideas and concepts mentioned, it is clear that further research is needed regarding the role that perceived trust, perceived danger, perceived usefulness, and perceived ease of use play in affecting attitudes toward online shopping and intention to buy. Therefore, in Fig. 1, a conceptual framework is made to explain the flow of thought in this study.

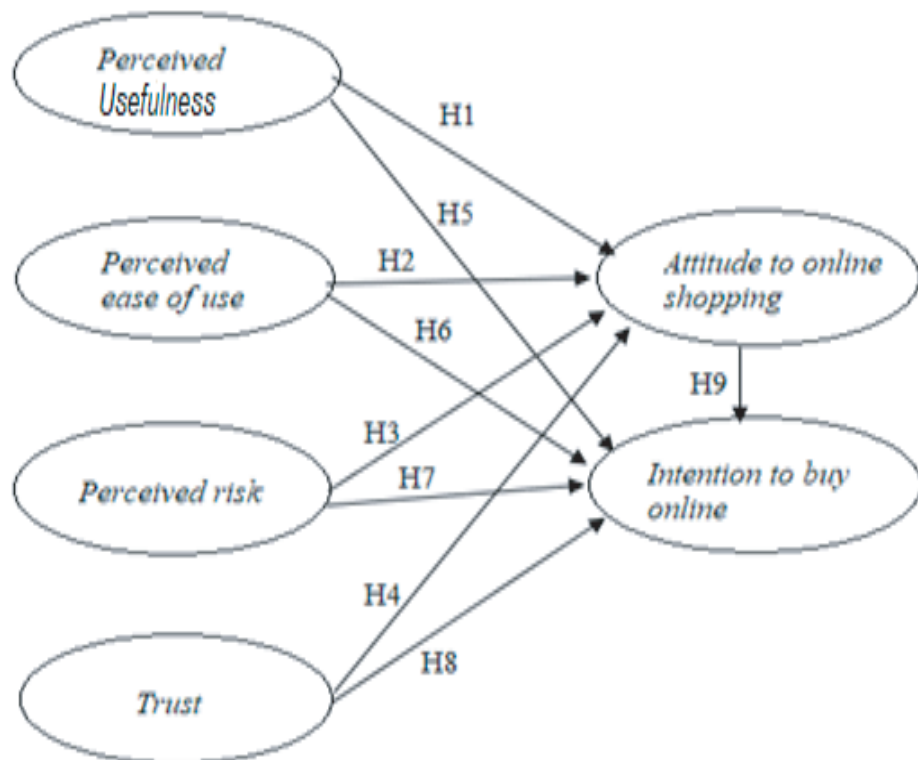


Figure 1: The conceptual framework.

3. Methods

This research was conducted on marketplace consumers (Shopee and Tokopedia) in Jabodetabek, where this online shopping interest has a significant impact on the growth and sustainability of SMEs in terms of revenue. The instrument used is a questionnaire using a likert scale with a score of 1-5 which is expressed from the most negative, neutral to the most positive, population is all items whose properties are assessed, and the sample is part of the population whose properties are tested [24]. The population of this survey is marketplace consumers (Shopee and Tokopedia) in Jakarta, Bogor, Depok, Tangerang and Bekasi. The population's size and features are reflected in the research sample. Researchers can use samples obtained from a community if it is huge and they are unable to investigate the entire population, for example owing to a lack of resources, time, or energy. The conclusion drawn from the sample's findings will apply to the entire population. Because of this, representative samples from the population are required (representative). The sampling technique used in this study is convenience sampling technique. Convenience sampling is a collection of information from members of the population who agree to provide this information [25]. So that in this study using 200 respondents as a sample.

The model used in this study is a causal or influential relationship model. The analysis technique used to test the hypothesis proposed in this study is SEM or structural equation modeling. The analysis method in this research is quantitative method, and the analysis tool is SEM. The validity and reliability of the instrument (questionnaire) and the hypothesis test of 5% alpha (0.05) were tested first before being analyzed by path analysis.

This research was conducted using descriptive and quantitative approaches. Descriptive studies aim to explain the characteristics of a particular group. Because this study aims to determine the relationship between these variables and express values in numerical form or focus on data in the form of numerical values that are processed mathematically with statistical formulas. The quantitative approach is a research technique that examines particular populations or samples and is based on the potvidian philosophy. This survey was carried out using numbers, and the analysis made use of statistics to evaluate and compile the survey data using questionnaires.

Respondents filled out questionnaires using a Likert scale to respond to questions that were presented as options, which was used to collect data (1-5). In this study, SEM PLS with SmartPLS 3.3 software was used as the data analysis technique.

4. Results and Discussion

4.1. The effect of perceived usefulness on attitude to online shopping

Previous research states that perceived usefulness has a very strong effect on attitudes towards using m-commerce [11]. Based on the results of research that has been conducted, it is stated that perceived usefulness affects attitudes towards online shopping [26]. Other research states that perceived usefulness affects attitude to shop online [5]. Therefore the proposition hypothesis in this study :

H1: Perceived usefulness has an effect on attitude to online shopping

4.2. The effect of perceived ease of use on attitude to online shopping

In Suleman et al's research, it states that perceived ease of use has no effect on online shopping attitudes [6]. Other research states that perceived ease of use has an effect on attitude to shop online [5]. In other studies, it also states that perceived ease of use has an effect on attitudes [27]. Therefore the proposition hypothesis in this study :

H2: Perceived ease of use has an effect on attitude to online shopping

4.3. The effect of perceived risk on attitude to online shopping

Other studies also state that benefits have a positive influence and risk has a negative influence on online shopping behavior [28]. In research that has been done before, it states that risk has no effect on consumer attitudes in online shopping [29]. In other studies, it also states that there is a significant effect of perceived risk on attitudes to online shopping [6]. Therefore the proposition hypothesis in this study :

H3: Perceived risk has an effect on attitude to online shopping

4.4. The effect of trust on attitude to online shopping

The results of previous research state that trust affects consumer attitudes [26,29]. Other research states that trust affects attitude to shop online [6]. Empirical findings from previous studies show that consumer attitudes toward online shopping are determined by trust [30]. Therefore the proposition hypothesis in this study :

H4: Trust has an effect on attitude to online shopping

4.5. The effect of perceived usefulness on intention to buy online

Previous research states that perceived usefulness has a positive impact on online shopping intentions [31]. The results of previous studies also state that the intention to shop online is positively and significantly influenced by perceived usefulness [32]. Therefore the proposition hypothesis in this study :

H6: Perceived usefulness has an effect on intention to buy online

4.6. The effect of perceived ease of use on intention to buy online

In previous studies, it was stated that perceived ease of use had no effect on intention to shop online [6]. Other research states that perceived ease of use affects intention to buy in online shopping [26]. The results of other studies also state that the intention to shop online is positively and significantly influenced by perceived ease of use [32]. Therefore the proposition hypothesis in this study :

H6: Perceived ease of use has an effect on intention to buy online

4.7. The effect of perceived risk on intention to buy online

Ventre and Kolbe stated that in their research they did not find perceived risk to directly influence online purchase intentions [33]. Other research states that perceived risk affects intention to shop online [6]. In addition, other studies have also revealed that online shopping intentions are negatively affected by perceived risk [31]. Therefore the proposition hypothesis in this study :

H7: Perceived risk has an effect on intention to buy online

4.8. The effect of trust on intention to buy online

Previous research states that trust affects the intention to shop online [6]. Other research also states that trust has a positive impact on online shopping intentions [31]. Therefore the proposition hypothesis in this study :

H8: Trust has an effect on intention to buy online

4.9. The effect of attitude to online shopping on intention to buy online

Arora and Anggarwal's study revealed that views toward online shopping have a strong beneficial impact on purchasing intentions [34]. Results from earlier studies indicate that attitude toward internet shopping has an impact on intention to shop online [6]. According to additional studies, sentiments affect online shoppers' inclination to purchase [26]. Therefore the proposition hypothesis in this study :

H9: Attitude to online shopping has an effect on intention to buy online

5. Conclusion

In this study, of course, it provides solutions to SMEs to determine the use of e-commerce in increasing their sales, of course in this study current consumers, especially during the Covid-19 pandemic, feel comfortable and easy to make shopping transactions by utilizing e-commerce. SMEs must realize that e-commerce can help in marketing activities.

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