Predicting intention to adopt omnichannel retailing of SMEs in Indonesia using UTAUT: the moderating role of personal innovativeness

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ABSTRACT

This study seeks to explain the intent of SMEs business owners to implement omnichannel retail in their operations. This study employs the UTAUT model and adds innovativeness as a variable that can influence the intention to adopt omnichannel. The sample for this research consisted of 90 SMEs proprietors in Malang City. This study's data were gathered via a questionnaire and analyzed using PLS-SEM. This study found that personal innovativeness and performance expectations significantly influence the intention to adopt omnichannel. In this study, effort expectations have no significant effect on the intention to implement omnichannel. It has been demonstrated that personal innovativeness can moderate the relationship between effort and performance expectations in the UTAUT model when it comes to the intention of MSME proprietors to implement omnichannel. In addition to focusing on consumers as end users, this study concludes that omnichannel service providers must also consider enterprises as omnichannel users.

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Introduction

In the digital age, businesses and consumers can manage their product and information flows across product supply and demand networks in a variety of ways. Multiple marketing channels can be utilized by a business to offer products; this is known as "multichannel retailing." With "multi-channel" retailing, both vendors and consumers have greater freedom to select product distribution channels, such as offline at the seller’s location, delivery services, marketplaces, etc. (Zhang et al., 2010). Unfortunately, there is a dearth of integration and coordination between channels in the “multi-channel” retailing system. Multi-channel retail refers to the use of multiple channels to sell products and interact with consumers, such as physical stores, online platforms, and mobile applications (Jain et al., 2022). In a multichannel retail environment, each channel frequently operates independently and competes with one another (Jain et al., 2022). This lack of integration may result in numerous difficulties and inefficiencies.

Multi-channel retail's weaknesses highlight the need for reliable and consistent product and information flows across multiple channels, necessitating a "Omni Channel" network to connect and coordinate processes, technologies, and businesses across all channels for each product (Brynjolfsson, Hu, & Rahman, 2013). Omnichannel retail is an integrated strategy that aims to provide consumers with a consistent and seamless experience across all channels (Jain et al., 2022). As opposed to multichannel retail, omnichannel retail emphasizes the elimination of silos and the coordination and integration of channels. By implementing an omnichannel strategy, retailers can compensate for the shortcomings of multichannel retail. Customers can expect consistent pricing,
promotions, and product availability across all touchpoints when there is integration and coordination between channels (Jain et al., 2022).

The phenomenon of operations related to the "Omni Channel" is extremely popular and extensively adopted. In 2018, the Japanese fashion brand Uniqlo, for instance, began "buy online, pick up in-store" retail operations. Trend from online to offline in 2018. Meanwhile, Uniqlo positioned itself as a contemporary and digital fashion technology company. The reopening of Zara's flagship store in Stafford with a digital experience marked a significant event in the integration of physical and online stores. The phenomenon of Omnichannel continues to be utilized by numerous businesses, including those in Indonesia. In Indonesia, the "order online and pick up in-store" system has been implemented in various online food ordering applications over the past three years (Mudjahidin et al., 2022). The "order online and pick up in-store" system is intended to create an integrated offline and online purchasing experience, giving consumers the option to conduct transactions through both offline and online channels or simultaneously online and offline.

Although Omnichannel research has been extensively studied, there are few studies that examine omnichannel adoption from a businessperson's perspective. Abushakra, Nikbin, & Abushakra, (2019) assert that the intention to adopt technology and innovation is significant not only for consumers but also for businesses, particularly to gauge their enthusiasm for implementing innovations to increase their value and competitive advantage. In the digital era, business actors, particularly Small and Medium Enterprises (SMEs), must be able to adapt to technological innovation. Thus, technological innovation is one of the measures that MSMEs can take to develop, allowing them to obtain a competitive advantage by accessing and utilizing networks of resources and knowledge (Bogers et al., 2017).

The Technology Acceptance Model (TAM) explains the intention to implement technology in a number of studies, such as research by Silva et al. (2018) and Abed (2020). Silva et al. (2018) and Abed (2020) clarify that the intention to implement innovation and technology is influenced by perceptions of perceived utility and perceived simplicity of use in using the new innovation or technology. Meanwhile, Abushakara and Nirkbin (2019), Ongko and Hati (2021), and Perdana et al. (2022) used The Unified Theory of Acceptance and Use of Technology (UTAUT) in their research to explain the intention to employ omnichannel. In UTAUT, the intention to employ a technology such as Omnichannel is influenced by Performance Expectancy and Effort Expectancy, which correspond to the TAM model's Perceived Usefulness and Perceived Ease of Use constructs.

In the context of Omnichannel, Kaur et al. (2019) and Nguyen & Borusiak (2021) note that, in addition to performance and effort expectations, personal innovativeness plays a significant role in determining the intention to employ Omnichannel. (2019) and Nguyen & Borusiak (2021). Kaur et al. (2019) and Nguyen & Borusiak (2021) find that personal innovativeness as a manifestation of a person's propensity to take risks that only exists in certain individuals is a crucial factor in determining the intent to adopt the most recent innovations and technologies. According to the findings of Kaur et al. (2019) and Nguyen & Borusiak (2021), innovativeness has a significant impact on the intention to adopt Omnichannel. Alternatively, Krey et al. (2019) and Alkawsi et al. (2021) view personal innovativeness as a variable that strengthens the influence of performance and effort expectancy on the intention to adopt innovation.

Ongko, & Hati's (2021) research reveals a gap between the implementation of omnichannel strategies by SMEs in Indonesia and the already omnichannel-focused behavior of Indonesian consumers. In order to explain the increasingly complex consumer behavior in Indonesia, an omnichannel strategy that emphasizes the integration and synergistic administration of multiple channels is required, as is a higher adoption rate, particularly among SMEs. This study seeks to characterize the intention to use omnichannel retailing, particularly among Indonesian MSMEs. The lack of research that concentrates on the intention to use omnichannel, particularly among entrepreneurs, as opposed to consumers, is the driving force behind this study. Based on Krey et al. (2019) and Alkawsi et al. (2021), this study modifies the UTAUT model by incorporating personal innovativeness as a variable that can moderate the effect of performance and effort expectancy. This research is anticipated to contribute to elucidating why it is essential for Omnichannel service providers to recognize businesses as important users of the Omnichannel system alongside end users. With the use of Omnichannel by business actors, particularly MSMEs, it will be possible to increase the number of end-user customers.

This study's data were collected through a questionnaire and analyzed using PLS-SEM and SmartPLS 4.0 software. This research begins with an introduction that describes the research's context, objectives, and benefits. The second section of this study is a review of the relevant literature that explains the theoretical and empirical foundations of the research. The third section of this study, research methodology, describes in detail the sample, data acquisition, and analysis methods used to solve research problems. The following section of this research presents the analysis results and findings, followed by an explanation of the research findings. This study concludes with a section that addresses research issues and provides practical recommendations for omnichannel service providers, MSME entrepreneurs, and future researchers.
Literature Review

A paragraph should explain the purpose and approach of review.

Theoretical and Conceptual Background

Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh introduced the Unified Theory of Acceptance and Use of Technology (UTAUT) in 2003 (Chao, 2019). Patil et al. (2020) explained that UTAUT was originally devised in an organizational context to explain technology adoption by employees. UTAUT then grew rapidly in its capacity to describe various propensities to utilize and implement technology and innovation. In numerous studies, UTAUT is used to explain customer willingness to purchase and use new technologies and innovations such as online payments (m-payment) (Alkhowaiter, W. A., 2022), smart meter technology (Alkawsi & Baashar, 2021), virtual reality (Xiangxi Kongdi, 2020), mobile commerce (Silvana Dakduk, 2020), etc.

UTAUT is comprised of four critical factors that can influence an individual’s intention to use or employ specific technologies and innovations: performance expectation, effort expectation, social influence, and facilitating conditions (Venkatesh et al., 2003). Performance Expectation, as defined by Venkatesh et al. (2012), is the degree to which an individual believes that the application of technology will assist him in achieving consumer job performance and have a positive impact on his intention to use this technology. Individuals will be motivated to use and embrace new technologies if they perceive these technologies to be more advanced and beneficial in their daily lives (Venkatesh et al., 2012), which has a positive influence on their intention to use these technologies. In the meantime, Venkatesh et al. (2003) define Effort Expenditure as the degree of simplicity involved in utilizing a technology or innovation. Effort expectancy was first introduced by Davis et al. (1989) in the Technology acceptability Model (TAM) as perceived simplicity of use, which is the most important factor of technology user acceptability and was subsequently validated as a key factor in the UTAUT model. Venkatesh et al. (2012) explain further that effort expectancy can be interpreted as the level of convenience associated with the use of technology by consumers, which has a positive influence on their intention to use the technology. Social Influence is the third component of the UTAUT paradigm, which is derived from the Theory of Reasoned Action (TRA). Venkatesh et al. (2003) recognized that the conceptualization of the environment could be extended to the social environment; consequently, he re-incorporated and validated social influence as a significant predictor of intention in the UTAUT model. The UTAUT model concludes by identifying facilitating conditions as predictors of intention to use and implement technologies and innovations. According to Venkatesh et al. (2003), facilitating conditions represent the extent to which consumers perceive their resources can facilitate task completion when using information systems.

Figure 1 shows the visual form of the UTAUT model in explaining the relationship of four key factors (performance expectancy, effort expectancy, social influence, and facilitating conditions) in influencing the intention to adopt technology.

![UTAUT Model](Source: Venkatesh (2003))
The UTAUT model is considered to explain well about individuals' attitudes towards technology and the aspects in which these attitudes affect their intention to use Omni Channel in the context of buying and selling transactions (Juaneda-Ayensa et al., 2016, Kaur et al., 2021). Some literatures on omni-channel usage behavior ignored the facilitating condition factor due to the belief that omni-channel is freely available without the need for specific organizational support (Juaneda-Ayensa et al., 2016) and social influence (Ryu & Fortenberry, 2021) due to the lack of use of omni channels by MSMEs, particularly in developing countries.

**Personal Innovativeness**

Pati et al. (2020) define innovation as a person's urge to seek out something new and distinctive. The manifestation of a person's innovativeness or novelty-seeking inclination reflects how receptive the person is to experiencing or embracing new (Karjaluoto et al., 2019). Perceived Innovativeness of Information Technology (PIIT) is a concept established by Agarwal and Prasad (1998) in the technology area to describe a person's proclivity to adopt or test new technologies. Personal Innovativeness, according to Nguyen and Borusiak (2021), is the amount of a person's choice to attempt a new product, service, or experience that requires wider and deeper analysis. Furthermore, Pati et al. (2020) define Personal Innovativeness in the context of technology as an expression of a person's proclivity to take risks that exists in some people but not in others. Pati et al. (2020) allude to the danger of embracing technological innovation that will be employed by the person in the activities performed.

According to Juaneda-Ayensa, Mosquera, and Murillo (2016), personal innovativeness in the context of omni channels might include customer profiles or preferences in attempting new experiences when selecting various marketing distribution channels. According to Jeon et al. (2020), personal innovativeness is generally regarded by many academics as a crucial component that may impact the adoption of the most recent system or technology. Personal innovativeness in omni channels, according to Kaur et al. (2020), demonstrates how far a person's demand for novelty extends, particularly when employing technology that merges numerous marketing channels. According to Krey et al. (2019), persons with more personal innovativeness will have a higher value for adopting new technology or marketing distribution channels with the same amount of individual competence to utilize a technology. According to Yi et al. (2006), an innovator has the capacity to conceive, comprehend, and appreciate the advantages of new technology. They aggressively seek out new ideas and take chances with more sophisticated technological skills. Highly inventive people overcome the uncertainty of new technologies, have a more positive attitude toward new technologies, and put a greater value on them as a result of their technical proficiency.

**Empirical Review and Hypothesis Development**

**Relationship between Performance Expectancy and SMEs Owner’s Intention to Adopt Omnichannel**

Performance expectation is used as a variable in research by Silva et al. (2018), Nguyen & Borusiak (2021), Perdana et al. (2022), Abed (2020), Kasilingam (2020), and Dhiman et al. (2019). According to the findings of Abed's study (2020), performance expectation has a major impact on MSMEs' intentions to use social commerce technology in Saudi Arabia. This is consistent with the findings of Silva et al. (2018), who discovered that performance expectation had a substantial impact on Omni channel acceptability. Perdana et al.'s (2022) study indicated that performance expectation, effort expectancy, management support, and government support all had a substantial influence on adoption intention. Kasilingam (2020) and Dhiman et al. (2019) discovered different results. According to the findings of Kasilingam (2020) and Dhiman et al. (2019), performance expectation has little influence on the desire to embrace new technical advancements. The following research hypothesis is developed based on the description provided.

**H1:** Performance Expectancy Significantly Affect SMEs Owner’s Intention to Adopt Omnichannel

**Relationship between Effort Expectancy and SMEs Owner’s Intention to Adopt Omnichannel**

Silva et al. (2018), Nguyen & Borusiak (2021), Perdana et al. (2022), Abed (2020), Abushakara and Nirkbin (2019), Ongko, & Hati (2021), and Kasilingam (2020) use performance and effort expectancy as variables that influence innovation adoption. The findings of Abed's research (2020) indicate that effort expectancy has a significant impact on MSMEs' intentions to adopt social commerce technology in Saudi Arabia. This is consistent with the findings of Silva et al. (2018), who discovered that the effort expectancy has a significant impact on the intention to use Omni channels. Similarly, the research of Perdana et al. (2022) demonstrates that performance expectations have a significant impact on adoption intent. In the research of Abushakara and Nirkbin (2019), Ongko and Hati (2021), and Kasilingam (2020), it was discovered that only performance expectancy had a significant effect on intention to adopt technology, whereas effort expectancy had no significant effect. Because the omni-channel system in restaurants is not yet completely stable, Ongko and Hati found in their study that effort expectancy have no significant impact. Kasilingam's (2020) research also discovered the same thing: the chatbot feature that is not widely known is still perceived as difficult to use by users who want to order products on Facebook e-commerce, so the effort expectancy has no significant effect on the intention to adopt facebook e-commerce chatbot technology. Following the description presented, the following research hypothesis is constructed:

**H2:** Effort Expectancy Significantly Affect SMEs Owner’s Intention to Adopt Omnichannel
Relationship between Personal Innovativeness and SMEs Owner’s Intention to Adopt Omnichannel

According to Jeon et al. (2020), personal innovativeness has been identified as a major component that may impact the adoption of new systems or technologies by numerous researches. In their studies, Kaur et al. (2019) and Nguyen & Borusiak (2021) shown that personal innovativeness has a substantial influence on raising the inclination to embrace Omnichannel. Personal innovativeness in multi channels, according to Kaur et al. (2020), indicates how far a person wants to innovate, particularly when employing technology that merges numerous marketing channels. The following research hypothesis may be developed based on past studies:

**H3: Personal Innovativeness Significantly Affect SMEs Owner’s Intention to Adopt Omnichannel.**

**Moderating Role of Personal Innovativeness on Relationship between Performance Expectancy and SMEs Owner’s Intention to Adopt Omnichannel**

Personal innovativeness has been noted as a moderating variable in various omnichannel research (Alkawsi et al. (2021), Chen (2022); Okumus et al. (2018), and Krey et al. (2019)). In their research, Krey et al. (2019) discovered that personal innovativeness may attenuate the influence of performance expectancy on intention to adopt. Chen's (2022) investigation on the motivation to continue using M-learning yielded similar findings. Chen's study (2022) demonstrates that personal innovativeness may mitigate the influence of viewpoints on the convenience of utilizing M-learning technology on students' motivation to use M-learning in the learning process. Alkawsi et al.’s (2021) investigation yielded varied outcomes. According to Alkawsi et al.'s (2021) study, personal innovation has been shown to mitigate the influence of privacy worries. Still, it cannot substantially moderate the effect of performance expectancy on the adoption of Smart Meter Technology in Malaysia. The same results were discovered in Okumus et al. (2018)'s study, where personal innovativeness was not shown to attenuate the influence of performance on the motivation to embrace technology. As a result, the following research hypothesis may be developed based on past studies:

**H4: Personal Innovativeness may Moderate the effect of Performance Expectancy on Intention to Adopt Omnichannel.**

**Moderating Role of Personal Innovativeness on Relationship between Effort Expectancy and SMEs Owner’s Intention to Adopt Omnichannel**

This study is based on the same research as Alkawsi et al. (2021), Chen (2022), Okumus et al. (2018), and Krey et al. (2019) regarding the moderating influence of personal innovativeness on the relationship between effort expectancy and the desire for omnichannel adoption. In the research of Alkawsi et al. (2021), personal innovativeness was found to moderate the impact of privacy concern, but not the effect of effort expectancy, on the adoption of Smart Meter Technology in Malaysia. In contrast to the research of Krey et al. (2019), which found that personal innovativeness can moderate the effect of performance and effort expectancy on the desire to adopt smartwatch technology, we find that personal innovativeness has no effect. Chen's research (2022) demonstrates that personal innovativeness can moderate the effect of perspectives on the convenience of using M-learning technology on students' motivation to continue using M-learning in the learning process, confirming the findings of Krey et al. In contrast to Krey et al. (2019) and Chen (2022), Okumus et al. (2018) discovered that individual innovativeness does not moderate the effect of performance on the desire to adopt technology, particularly mobile applications. Thus, the research hypothesis can be formulated as follows based on prior research:

**H5: Personal Innovativeness may moderate the effect of Effort Expectancy on Intention to Adopt Omnichannel.**

**Research and Methodology**

**Sampling and Data Collection**

This study's population consists of SMEs owner in Malang City. Malang City was selected for this study because it has been recognized as the city with the greatest digital innovation, particularly for SMEs (Pratama, 2023). According to Cohen (1992), the number of representative samples for a study with three independent variables using a significance level of 5% and a minimum R² of 0.10 is 103. In this investigation, credible responses were gathered using non-probability sampling. The criteria used in this study are SMEs operating for more than five years to obtain a deeper understanding of a stable business.

This study reveals that the number of SMEs owners is fairly evenly split between men and women. The majority of SMEs owners over the age of 40 demonstrate a level of mental maturity, so it is expected that they will be able to answer the questions in this study correctly. Table 1 demonstrates that the majority of small and medium-sized enterprises (SMEs) have an annual revenue of less than $10 million and conduct business offline. The distribution of the research sample is shown in Table 1.
Table 1: Sample Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>61</td>
<td>59.2</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>40.8</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 25 Years</td>
<td>9</td>
<td>8.7</td>
</tr>
<tr>
<td>26-40 Years</td>
<td>18</td>
<td>17.5</td>
</tr>
<tr>
<td>41-55 Years</td>
<td>40</td>
<td>38.8</td>
</tr>
<tr>
<td>&gt; 55 Years</td>
<td>36</td>
<td>35.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>28</td>
<td>27.2</td>
</tr>
<tr>
<td>Junior High School</td>
<td>22</td>
<td>21.4</td>
</tr>
<tr>
<td>Senior High School</td>
<td>37</td>
<td>35.9</td>
</tr>
<tr>
<td>Bachelor</td>
<td>16</td>
<td>15.5</td>
</tr>
<tr>
<td>Monthly Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 10 Milion Rupiah</td>
<td>89</td>
<td>86.4</td>
</tr>
<tr>
<td>10-30 Milion Rupiah</td>
<td>10</td>
<td>9.7</td>
</tr>
<tr>
<td>30-50 Milion Rupiah</td>
<td>3</td>
<td>2.9</td>
</tr>
<tr>
<td>&gt;50 Milion Rupiah</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Sales Channel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offline (Store)</td>
<td>77</td>
<td>74.8</td>
</tr>
<tr>
<td>Offline and Online</td>
<td>23</td>
<td>22.3</td>
</tr>
<tr>
<td>Online</td>
<td>3</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Questionnaire and Measurement

This study's questionnaire was used to collect data on the research sample's characteristics and responses to the research variables. Questionnaire items for performance expectancy variables were adopted from Özdemir et al. (2020), the effort expectation item was adapted from Perdana et al. (2022), the personal innovation items followed Juaneda-Ayensa et al. (2016), and the intention to implement omnichannel questionnaire items followed Kaur et al. This study utilized a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree) to evaluate the questionnaire.

Data Analysis

The data in this study were analyzed using Partial Least Square Structural Equation Modeling (PLS-SEM). PLS-SEM is a multivariate analysis method that empirically examines the relationship between variables. PLS-SEM is extensively utilized since it is not constrained by multivariate analysis assumptions such as normality (Hair et al., 2022). PLS analysis consists of two stages: evaluating the outer model (construct model) and the inner model (structural model). The outer model was evaluated to determine whether the manifest variables accurately and reliably measured the latent variables investigated in this study (Hair et al., 2022). The inner model will be evaluated to verify the research hypothesis and the model's fit quality.

![Conceptual Model of the Study](Authors 2023)
Findings and Discussions

Findings

Descriptive Statistics

Descriptive Statistics is used to explain the responses of respondents in the form of the average score on the 5-point Likert scale and the standard deviation of the answer score. In this study, descriptive statistics also include correlations between research variables. According to Cohen (2003), a correlation greater than 0.30 can imply a significant relationship between variables.

Table 2: Descriptive Statistics of Sample Responses

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>PE</th>
<th>EE</th>
<th>PI</th>
<th>IA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Expectancy</td>
<td>3.346</td>
<td>0.742</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effort Expectancy</td>
<td>3.149</td>
<td>0.850</td>
<td>0.744</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Innovativeness</td>
<td>2.977</td>
<td>0.760</td>
<td>0.555</td>
<td>0.624</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Intention to Adopt</td>
<td>3.204</td>
<td>0.744</td>
<td>0.784</td>
<td>0.696</td>
<td>0.735</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Based on descriptive statistics, it was discovered that the average response for each variable had a value in the center of the 5-likert scale. The correlation analysis findings reveal that there are signs that the variables in this research are related.

Partial Least Square (PLS-SEM)

PLS-SEM will validate the measurement model and investigate the relationship between variables in this study, which is the research hypothesis. Figure 3 displays the results of a PLS-SEM analysis using the SmartPLS 4.0 software.

Figure 3 shows the path coefficient which shows the relationship between variables and the outer loading which shows the relationship between the measurement items and their latent variables.

Outer Model Evaluation

The outer model evaluation consists of three evaluations: 1) evaluation of convergent validity, 2) evaluation of construct reliability, and 3) evaluation of discriminant validity (Hair et al., 2022). Convergent validity reflects the precision with which the measurement items explain the construct variables. Each variable's outer loading and Average Variance Extracted (AVE) values are examined for this evaluation. The outer loading of each item is greater than 0.70 as well as the AVE is greater than 0.5, indicating that convergent
validity has been achieved in the measurement model (Hair et al., 2022). It is determined through construct reliability whether the measurement items are reliable enough for measuring research variables. The composite reliability (CR) value is examined during construct reliability testing. The measurement item is reliable if its composite reliability is greater than 0.70 (Hair et al., 2021). Finally, discriminant validity demonstrates that each variable’s items are unique and can only represent that variable. Using the Fornell-Larcker Criterion, discriminant validity was evaluated by comparing the square root of the AVE to the correlation coefficient between variables in the structural model. When the root of the AVE variable is greater than the correlation coefficient between variables, discriminant validity has been attained for each item. The results of the evaluation of convergent validity and construct reliability are displayed in Table 3.

Table 3: Convergent Validity and Construct Reliability Evaluation Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Outer loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Expectancy</td>
<td>PE.1</td>
<td>0.906</td>
<td>0.749</td>
<td>0.947</td>
</tr>
<tr>
<td></td>
<td>PE.2</td>
<td>0.907</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PE.3</td>
<td>0.886</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PE.4</td>
<td>0.891</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PE.5</td>
<td>0.837</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PE.6</td>
<td>0.756</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effort Expectancy</td>
<td>EE.1</td>
<td>0.934</td>
<td>0.742</td>
<td>0.896</td>
</tr>
<tr>
<td></td>
<td>EE.2</td>
<td>0.888</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EE.3</td>
<td>0.753</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Innovativeness</td>
<td>PI.1</td>
<td>0.922</td>
<td>0.784</td>
<td>0.916</td>
</tr>
<tr>
<td></td>
<td>PI.2</td>
<td>0.843</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PI.3</td>
<td>0.890</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to Adopt Omnichannel</td>
<td>AI.1</td>
<td>0.871</td>
<td>0.774</td>
<td>0.932</td>
</tr>
<tr>
<td></td>
<td>AI.2</td>
<td>0.925</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AI.3</td>
<td>0.857</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AI.4</td>
<td>0.864</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 demonstrates that each variable has an outer loading value greater than 0.7 and an AVE value greater than 0.5. In this study, the overall reliability of each variable was determined to be greater than 0.70. Consequently, the evaluation results established convergent validity and construct reliability for the measurement items. The subsequent evaluation focused on the discriminant validity outlined in Table 4.

Table 4: Discriminant Validity Evaluation Result

<table>
<thead>
<tr>
<th></th>
<th>Effort Expectancy</th>
<th>Intention to Adopt Omnichannel</th>
<th>Performance Expectancy</th>
<th>Personal Innovativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort Expectancy</td>
<td>0.862</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention to Adopt</td>
<td>0.712</td>
<td>0.880</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance Expectancy</td>
<td>0.763</td>
<td>0.782</td>
<td>0.865</td>
<td></td>
</tr>
<tr>
<td>Personal Innovativeness</td>
<td>0.634</td>
<td>0.748</td>
<td>0.558</td>
<td>0.885</td>
</tr>
</tbody>
</table>

Table 4 demonstrates that the value of the AVE root on the diagonal matrix is greater than the correlation between variables. According to the evaluation based on the Fornell-Larcker criterion, all items within each variable attained discriminant validity. As a result of the evaluation of the outer model, it is known that all measurement items are valid and reliable, allowing them to be used to evaluate the research hypothesis.

Inner Model Evaluation

The inner model is evaluated to verify the research hypothesis and evaluate model fit. Examining the significance of the path coefficient (β) indicated by the p-value is used to test the null hypothesis. Effect size (f²) is utilized to indicate the magnitude of the independent variable's influence on the dependent variable. Cohen (1988) provides a categorization of the strong influence of independent variables based on their effect size, where effect sizes below 0.02 are stated to have no effect that can be calculated from

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the independent variable, effect sizes between 0.02 and 0.15 can be categorized as small effects, effect sizes between 0.15 and 0.35 are declared as medium effects, and effect sizes greater than 0.35 are declared as large effects. The coefficient ($R^2$) is used to evaluate how well the model can explain the research model. In the meantime, Cohen (2003) explained that Adjusted $R^2$ can be used to evaluate model adequacy. Adjusted $R^2 > 0.25$ (25%) indicates that there is an era relationship between the research variables, and the PLS-SEM model fit have been attained. Table 5 displays the aggregate interior model evaluation results.

Table 5: Inner Model Evaluation Result

<table>
<thead>
<tr>
<th>Code</th>
<th>Hypothesis</th>
<th>$\beta$</th>
<th>p-value</th>
<th>$f^2$</th>
<th>$R^2$</th>
<th>Adj $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Performance Expectancy $\rightarrow$ Intention to Adopt</td>
<td>0.460</td>
<td>0.000</td>
<td>0.347</td>
<td>0.766</td>
<td>0.754</td>
</tr>
<tr>
<td>H2</td>
<td>Effort Expectancy $\rightarrow$ Intention to Adopt</td>
<td>0.107</td>
<td>0.278</td>
<td>0.016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3</td>
<td>Personal Innovativeness $\rightarrow$ Intention to Adopt</td>
<td>0.431</td>
<td>0.000</td>
<td>0.457</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H4</td>
<td>Personal Innovativeness $\times$ Performance Expectancy $\rightarrow$ Intention to Adopt</td>
<td>-0.145</td>
<td>0.042</td>
<td>0.045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H5</td>
<td>Personal Innovativeness $\times$ Effort Expectancy $\rightarrow$ Intention to Adopt</td>
<td>0.150</td>
<td>0.031</td>
<td>0.050</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The H1 test findings in Table 5 reveal a p-value less than the 5% significance threshold, demonstrating that performance expectation has a significant influence on the intention to adopt omnichannel. The positive path coefficient (0.460) implies that the better the performance expectation of Malang City MSME owners, the more likely they are to adopt omnichannel. The $f^2$ value of 0.347 suggests that the influence of performance expectation on the intention to adopt omnichannel is a medium effect. Meanwhile, based on Table 5, it was discovered that H2 was rejected, as shown by a p-value larger than the 5% significance level, indicating that effort expectation did not have a significant influence on the intention to adopt omnichannel in this research. The p-value test findings are corroborated by a $f^2$ value of 0.016, indicating that effort expectation has no significant influence on the intention to embrace omnichannel. Different findings were discovered on personal innovativeness, where the p-value on H3 was determined to be less than the 5% significance threshold, indicating that personal innovativeness has a significant influence on the intention to adopt omnichannel. The positive path coefficient (0.431) with an effect size of 0.457 implies that personal innovativeness has a significant impact on SMEs owners' intentions to embrace omnichannel.

Table 5's test results also demonstrate that personal innovativeness moderates the influence of performance and effort expectancy on the intention to adopt omnichannel. This is evidenced by the p-values for Hypotheses 4 and 5 being less than 5%. According to Hair et al. (2019), a moderating variable can be classified as a quasi-mediator if it has been demonstrated that it can influence the dependent variable and moderate the effect of other independent variables on the dependent variable. Thus, it can be concluded that personal innovativeness works as a quasi-mediator capable of influencing the relationship between performance and effort expectancy with regard to the intention to adopt omnichannel.

$R^2$ in Table 5 was 0.766, indicating that the research variables explained 76.6% of the variety of the research model, with the remaining 24.4% explained by factors outside the study. The adjusted $R^2$ in this research (0.754) was determined to be more than 25%, indicating that the fit model was attained and that the causality model between the variables in the study may be used in future investigations.

Discussion

This study discovered that performance expectations played a significant role in increasing the intention to employ omnichannel. According to the findings of this study, SME owners believed that technological innovation, including omnichannel, could enhance their marketing performance. This research confirms the findings of Abed (2020), Silva et al. (2018), and Prime et al. (2022) that performance expectations play a significant role in increasing an individual's desire to employ a specific innovation or technology. The findings of this study indicate that SME proprietors in Malang City are cognizant of the fact that business competition in the modern era necessitates businesses to continue innovating in order to remain competitive with other similar businesses.

In this study, it couldn't be proven that effort expectation increased the intention to implement omnichannel. The study's findings indicate that small and medium-sized enterprises (SMEs) have high expectations for the business processes required to implement omnichannel in their operations, so it is questionable whether they can implement omnichannel in marketing ornamental plants. This study's findings are consistent with those of Abushakara and Nirkbin (2019), Ongko and Hati (2021), and Kasilingam (2020), who found that effort expectancy does not influence adoption intent. This study's findings may be because, in contrast to performance expectancy, which is based on users' belief in the ability of technology to improve their business performance, effort expectancy is closely related to how well-known an innovation or technology is for it to be believed that adopting it will not require a substantial amount of effort. Therefore, the lack of use of Omnichannel by SMEs proprietors in Malang may cause the public to question how simple it is for businesses to employ Omnichannel.
This study suggests that innovativeness significantly affects the intention to employ omnichannel. This investigation is consistent with the findings of Jeon et al. (2020), Kaur et al. (2019), and Nguyen & Borusiak (2021). Because SMEs owners in Malang City are enthusiastic about technology, they are more receptive to omnichannel. According to the findings of this study, one of the strongest indicators is the eagerness to attempt something right away. Creativity and innovation have become one of the most prominent characteristics of entrepreneurs; this may be one of the factors influencing the intention of SMEs owners to implement Omnichannel.

This study reveals that personal innovativeness can moderate the effect of performance expectations on omnichannel adoption intent. Personal innovativeness, a person's reaction to innovations, can bolster the effect of conviction in omnichannel marketing performance on intentions to use omnichannel. A person with modest performance expectancy can be encouraged to employ omnichannel technology for their business processes if they possess a high level of personal inventiveness. According to Krey et al. (2019) and Chen (2022), personal innovativeness can strengthen the effect of performance expectancy on the intention to adopt omnichannel. These findings are consistent with those of the present study. This study's findings are also supported by the fact that when SME proprietors learn about new technologies or innovations, they are always anxious to discover how to implement them.

Finally, this study found that an individual's innovativeness can moderate the effect of effort anticipation on the intention to implement omnichannel. The results support the findings of Krey et al. (2019) and Chen (2022), who discovered that personal innovativeness can enhance the effect of effort expectation on the intention to adopt omnichannel. Entrepreneurs' eagerness to adapt to a dynamic competitive environment causes them to disregard some of the difficulties they perceive in employing technology. In contrast to end consumers, who are not required to develop constantly, entrepreneurs must be adaptable and constantly innovative. Innovation, which is one of the most essential entrepreneurial skills, also encourages a company's acceptance of technological updates, particularly those that can improve the efficiency of its business processes. This enthusiasm inspired SMEs owners in Malang City to implement omnichannel despite their low-effort expectations.

Conclusions

This study reveals that personal innovativeness and performance expectations play a significant role in influencing the intention of SMEs owners to adopt omnichannel. Lack of knowledge and ignorance regarding the Omnichannel platform can discourage SME proprietors from utilizing the platform. Therefore, Omnichannel sales platform providers can educate customers about the simplicity of use of the Omnichannel system, allowing them to utilize the Omnichannel sales system without hesitation. The results of the study indicate that even though SMEs are still hesitant to implement the Omnichannel system in their business processes, they have a high propensity to promote the use of the Omnichannel system to buyers if they can use the sales system effectively; this is a result of the MSME owners’ high level of personal innovation. Consequently, this should be a concern for Omnichannel platform providers to increase their customers’ intent to use their Omnichannel sales platform.

The findings of this study can assist SME entrepreneurs in maintaining their capacity to embrace innovation effectively. This research can be considered by SME proprietors who are implementing omnichannel business processes. Using the results of this study, omnichannel service providers can consider how to provide SME entrepreneurs with informative and educational promotions to increase their interest in employing omnichannel. With the interest of SME proprietors in omnichannel merchandising, they will be able to convince end users to adopt a purchasing system based on the omnichannel platform; therefore, omnichannel service providers must evaluate omnichannel adoption from a business standpoint.

Finally, this study's ability to represent the overall perception of business proprietors has limitations. The perceptions of MSME businesspeople in Indonesia can only partially capture research focusing on SMEs in Malang City. Other factors, such as culture, social environment, and business size, can affect the business person's perspective. Therefore, future research should consider these factors and provide a broader scope. The limited knowledge of omnichannel among MSME merchants may also be a source of bias in this study; therefore, additional research is urgently required when omnichannel becomes better known.

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References


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