How Do Ecommerce App Users Continue To Use The Platforms?

Astra Prima Budiarti¹*
¹Department of Management, Universitas Negeri Padang

Abstract
This study investigates the effects of cognitive absorption and perceived usefulness on the users intention of online shopping platforms to continue using those platforms, both direct and indirect. Indirect influence is mediated by trust. In this study, complicated structural models can be tested using structural equation modeling (SEM) analysis. According to this study, cognitive absorption, perceived usefulness, and trust all influence continuation intention. The study's target audience is made up of users of e-commerce platforms. The accidental sampling technique was used to randomly sample 253 respondents in total. However, the indirect relationship between cognitive absorption and continuance intention is not considerably impacted by trust. This is impacted by individuals' tendencies to disregard trust when they are highly engaged with the sites they utilize.

Keywords: continuance intention; cognitive absorption, perceived usefulness; trust

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*Corresponding author: astraprimab@fe.unp.ac.id

Introduction
Covid-19 epidemic has increased e-commerce used. As a result, the social commerce trend—that is, online transactions involving buying and selling through chat programs and social media—is encouraged to spread. The expansion of Indonesia's digital economy business will be aided by the rise in smartphone users who are using the internet. As a result, competition in this sector cannot be avoided. All businesses are rushing to enter a new market that is rife with digital competition. However, only a few of them were successful in taking home the prize. Business owners frequently concentrate solely on adopting new technologies without considering what value users will enjoy and accept (Marmer et al., 2011).

Consumer behavior is beginning to shift toward more efficient activities that avoid physical contact. So that, it influences how much e-commerce is used. Positive changes can be seen in the total volume of the e-commerce. The overall amount of e-commerce transactions on the first half of 2022 was IDR 227.8 trillion, increasing 22.1% from the same time in the previous year, according to The Central Bank of Indonesia (BI). Additionally, 1.74 million transactions were reported in total, a growth of 39.9% year over year.

The Central Bank of Indonesia (BI), in the October 2022 edition of the book Financial Stability Study for Semester I 2022, stated that people are increasingly favoring digital commercial and financial transactions. As a result of this phenomena, new community members' preferences and habits are even developed at multiple societal levels.

The Covid-19 outbreak a few years ago has led to an upsurge in e-commerce users. A report by Sirclo (2020) claims that the COVID-19 pandemic's effects have had an effect on the Indonesian e-commerce’s growth. An increase in the number of new users is the result. Since the epidemic began, an estimated 12 million additional people had signed up for e-commerce; 40% of these people claimed they would keep using it once the virus was over. Thus, an increase in e-commerce consumers can be attained in 2 years under typical circumstances.
However, this not only points to a fantastic economic prospect but also to difficulties in starting a digital firm. 90% of digital inventions have failed, according to Marble in "Startup Genome Extra on Premature Scaling (2011)". This demonstrates that organizations must understand user intents in addition to their own digital adoption if they want to survive in the fast expanding digital business environment. Therefore, it is crucial to carry out a thorough analysis of how users of e-commerce applications perceive the continuance intention’s concept (Marmer et al., 2011b).

The focus of this study is the concept of continuance intention, which refers to someone's intention to make another purchase using their preferred e-commerce platform following a prior one. The success of an innovation, according to researchers, cannot be determined by only being aware of technology uptake. In order for an e-commerce service application to remain operational, user loyalty and intention to stick around at the individual user level are the key factors (Jahanmir et al., 2020).

**Literature Review**

**Continuance Intention**

The topic of continuance intention has generated a great deal of discussion in the fields of information technology and e-commerce. Scholars refer to continuance intention as the desire of a user to keep using a service or technology after the first adoption or trial phase. Davis, (1989) develop The Technology Acceptance Model (TAM), asserts that users' intentions to continue using a technology are significantly affects by the perceived usefulness and ease of use of the service or technology. This could imply that, in the online shopping context, users are incline to continue with a website or platform that they find practical and simple to use.

Researchers have more recently looked into how additional elements like habit, trust, and contentment affect users' intention to stick around. For instance, Liao & Cheung (2002) found that in the online purchase context, trust become a strong predictor of continuation intention.

Continuance intention, according to Venkatesh et al., (2012), is the choice to continue using an information system after being pleased with its performance. The user's choice to keep using a system after utilizing it in the past is referred to as continuance intention, according to Lin & Wang (2012). According to Hong et al., (2017) continuance intention can be defined as a customer's desire to continue using an e-commerce platform based on their enjoyment and perceived value.

Continuance intention, according to Wu & Chen, (2017), is the choice to continue using an e-commerce website based on the user's satisfaction, trust, and perception of the website's benefits.

**Trust**

According to Jumaan et al., (2020), trust can be defined as a party's willingness to be exposed to the actions of other parties because they believe those other parties will take particular actions that are important to them. This is true independent of their ability to watch or exert control over those other parties. The ability of the trustee, which is a set of skills and competencies to carry out goals in order to gain trust, benevolence, which is the degree of good will toward others, and integrity, which is a fixed norm to trust other people are the three indicators that can be used to build trust (Mayer et al., 1995). Depending on the connection, experience, stage of development, and indicators under current circumstances, the level of trust can change (Rousseau et al., 1998).

**Cognitive Absorbtion**

Information systems and e-commerce have both researched the idea of cognitive absorption.
It describes the extent to which a user loses sense of time and location while totally immersed in an online activity. A user's intense engagement and immersion in an online shopping experience is the definition of cognitive absorption in e-commerce.

Cognitive absorption, according to Agarwal & Karahanna, (2000), is a situation of intensive involvement of computer programs characterized by enhanced focus, concentration, and enjoyment. According to Venkatesh et al., (2003), cognitive absorption is when a person becomes totally absorbed in something and finds it difficult to put it down. Then, Huang et al., (2018) stated that cognitive absorption is a psychological condition in which a person is so engrossed in the online activity that they become unaware about their surroundings and the passing of time. According to Kim & Lennon, (2013), cognitive absorption describes the degree to which a user is totally involved, engrossed, and enjoys their online buying experience.

A user is actively using the e-commerce site they are using when they are cognitively absorbed (Agarwal & Karahanna, 2000). The five elements of cognitive absorption that used in this study consist of focused immersion, temporal dissociation, control, increased enjoyment, and curiosity. When using an e-commerce site, people who are focused on the task at hand disregard the attention of others. Temporal dissociation is the inability of a person to be aware of time passing when interacting with an e-commerce site. Increased enjoyment is a key factor in cognitive absorption because it captures the enjoyable components of engagement. Control is how a person feels they have it when utilizing an e-commerce site. In the meantime, curiosity measures how much sensory and personal cognitive curiosity an event arouses (Jumaan et al., 2020).

To sum of, cognitive absorption in e-commerce refers to a condition of intense focus, delight, and loss of sense of time and effort throughout the online purchasing experience.

Perceived Usefulness

The term "perceived usefulness" in the information systems and e-commerce context refers to users believe a certain technology or system will improve their productivity, efficiency, or effectiveness in achieving their goals. Scholars have provided a variety of definitions of perceived usefulness in the e-commerce context. According to Davis, (1989) perceived usefulness is the term that is most usually employed. Davis state that, perceived usefulness refers to how much a person sense about employing a certain technology that would improve their ability to execute their tasks.

According to Venkatesh et al., (2003), perceived usefulness can be defined as user believes using a technology that will improve their capacity to perform their task. Lin & Wang, (2012), defined perceived usefulness as the stretch to which a user believes about using an e-commerce platform can help them achieve their goals.

The extent to which a user thinks that having access to an e-commerce website would allow them to execute tasks more swiftly and effectively is described by (Wu & Chen, 2017).

Overall, perceived usefulness is the important factor that affects user adoption and continuance intention in e-commerce. It is influenced by factors such as system quality, information quality, perceived ease of use, perceived value, and is a key predictor of user behavior and satisfaction in e-commerce.

The Impact of Cognitive Absorption toward Continuance Intention

When someone is so engrossed in something that they lose awareness of their surroundings and the passage of time, it is stated that someone are in the situation of cognitive absorption. The decision to continue employing a certain good or service is referred to as a person's continuance intention. The relationship between
continuous intention and cognitive absorption has been studied.

Lin & Wang, (2012) found that cognitive absorption had a favorable effect on the continuance intention. According to the study, people are more inclined to keep using a good or service when they are completely engrossed in it. According to the study, cognitive absorption lowers perceived prices and raises perceived advantages of using the good or service.

Similar findings made by Acharya et al., (2022) in their investigation of how cognitive absorption impacts the intention to continue use ecommerce. The survey empirically investigate the effects of the various cognitive absorption dimensions on the intention of AI-driven RSs to continue using them in e-commerce.

Another study by Chen & Liu, (2012) revealed that, in the setting of online learning, cognitive absorption significantly affects continuance intention. According to the survey, consumers are more likely to stick with a platform and tell others about it when they are completely engaged in mobile learning activities. Thus, research hypotheses can be formed, including:

H1. Cognitive Absorption has a direct effect on Continuance Intention

These research collectively imply that cognitive absorption influences continuation intention favorably across settings. People are more likely to recognize the advantages of utilizing a good or service and stick with it when they are totally engaged in it.

Evidence exists to support the idea that trust may serve as a mediator between continued intention and cognitive absorption.

Jumaan et al., (2020) conduct the study then found that, when it comes to online shopping, trust alters the link between cognitive absorption and continuing intention to some amount. According to the survey, people are more likely to acquire trust in the online retailer when they are completely engaged in their online buying activities, which enhances their intention to keep using the platform. In the online social networking context, Zhang et al., (2015) discovered that trust regulates the relationship between cognitive absorption and continuance intention. Based on the theory, research hypotheses can be formed, including:

H2. Cognitive Absorption has an indirect effect on Continuance Intention, mediated by Trust

The Impact of Perceived Usefulness towards Continuance Intention

The Technology Acceptance Model (TAM), that inferred that users’ perceptions about the technology's utility have an impact on their intention to keep using the technology, emphasizes perceived usefulness as a major component. The connection between continuance intention and perceived usefulness has been the subject of numerous research.

According to Lu et al. (2023), perceived usefulness had a positive impact on continuation intention in the setting of mobile health applications. The survey found that consumers are more likely to continue with an app if they think it would help them manage their health. According to a different study by K. Y. Lin & Lu, (2011), perceived usefulness significantly affects the intention to continue shopping online. The study contends about users are prefer to stick with an online shopping site when they believe it will meet their demands. The research hypotheses can be formed, including:

H3. Perceived Usefulness has a direct effect on Continuance Intention

Users are more inclined to keep using a technology if they believe it will benefit their professional or personal lives. Overall, these research indicate that perceived usefulness influences continuance intention positively across
situations. Users are more inclined to stick with a technology or service they believe to be valuable.

There is evidence to suggest that trust can mediate the relationship between continuance intention and perceived usefulness.

Jumaan et al., (2020) discovered that in the context of online purchase, trust influences the association between perceived usefulness and continuance intention. According to the study, when customers view an online shopping site as useful, they are more likely to grow to trust it, which in turn boosts their desire to keep using the site.

According to (Bhattacherjee & Lin, 2015), in the context of mobile banking, trust serves as a partial mediation between perceived usefulness and continuance intention. According to the survey, consumers are more inclined to create trust in the bank and are therefore more likely to intend to always using a mobile banking when they believe it to be beneficial.

According to (Nguyen & Ha, 2021), Trust have a functions as a partial mediator between continuance intention and perceived utility in the context of mobile purchasing apps. The study found that users are more likely to develop trust in an app when they think it would benefit them, which increases their likelihood of using the app again in the future. Thus, research hypotheses can be formed as:

H4. Perceived Usefulness has an indirect effect on Continuance Intention, mediated by Trust

![Figure 1. Theoretical Framework](image)

**Method**

The quantitative method is used to investigate the relationship between variables and test hypotheses in this study. Delivering surveys to people who met the requirements allowed for the collection of primary data. The study's target audience is made up of users of e-commerce platforms. The accidental sampling technique was used to randomly sample 253 respondents in total. In this work, structural equation modeling (SEM) analysis is utilized. To see the characteristics of behavior in the area, respondents were only allowed in the West Sumatra region. The Partial Least Squares Structural Equation Modeling (PLS-SEM) approach was utilized to test the study model.

The instrument for each variable in this study was adopted from previous research. Continuance intention is measured using 3 instruments (Bhattacherjee, 2001). The five elements of cognitive absorption—focused immersion, temporal dissociation, control, increased enjoyment, and curiosity—were taken from the work of Agarwal & Karahanna, (2000).
Trust uses indicators derived from Venkatesh's research (Venkatesh et al., 2012) the perceived usefulness (PU) variable contains 4 instruments (Jumaan et al., 2020).

An evaluation of the outer loading and Average Variance Extracted (AVE) values was done before to the survey to confirm the validity and reliability of the questionnaire. To determine the link between the variables, an inner model test must be performed. The significance level 0.05 or the t-value exceeding the critical value (1.96), respectively, were used to test the research hypothesis.

Results and Discussion

The results of the descriptive analysis show the characteristics of the respondents in this study who use e-commerce platforms. Overall, there were 25.7% men and 74.3% women replies. Regarding online purchasing habits, 44.3% of respondents have done so in the past week, 28.9% in the past month, and only 10.3% have just finished their online shopping.

Only 6.3% of respondents used an e-commerce platform for more than 3 hours in a single day, with 56.9% of respondents using it for less than an hour and 36.8% using it for up to 3 hours.

They typically purchase books (18.6%), computer equipment (15%), home appliances (19.8%), fashion items (79.1%), and beauty items (34.8%) online.

Majority of respondent use Shopee, Lazada, and Tokopedia on their online purchase activity.

Instrument testing for Research

Before testing the hypothesis, a measurement model is looked at to verify indicators and latent variables. Tests for construct validity and construct reliability are included in these evaluations. The construct validity test was measured using the loading score and AVE parameters in the study model. The AVE rating ought to be higher than 0.5. A valid indicator must have a outer loading value of at least 0.7; however, as long as the AVE score is higher than 0.5, a loading value of between 0.5 and 0.7 is also acceptable. Both the Cronbach's alpha value and the composite reliability value show the outcomes of the reliability test. If the composite reliability score is larger than 0.7 and the Cronbach's alpha value is greater than 0.6, the construct is considered reliable (Abdillah & Jogiyanto, 2015).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Absorption</td>
<td>0.644</td>
</tr>
<tr>
<td>Continuance Intention</td>
<td>0.802</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.702</td>
</tr>
<tr>
<td>Trust</td>
<td>0.817</td>
</tr>
</tbody>
</table>

*Source: Processed data (2023)*

The AVE values that pass the concept validity test are displayed in Table 1. Figure 2 displays the statement items that have been deemed valid while also displaying the loading score from the study.
The output value of Cronbach alpha and composite reliability are used to measure dependability. When Cronbach's Alpha > 0.6 and Composite Reliability > 0.7, there are reliable requirements. The findings of the reliability test for each variable are listed in Table 2.

**Table 2. Reliability Test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Absorption</td>
<td>0.862</td>
<td>0.900</td>
</tr>
<tr>
<td>Continuance Intention</td>
<td>0.876</td>
<td>0.924</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.858</td>
<td>0.904</td>
</tr>
<tr>
<td>Trust</td>
<td>0.888</td>
<td>0.930</td>
</tr>
</tbody>
</table>

*Source: Processed data (2023)*

Additionally, the internal model is tested. This test was run to determine the intercourse between the variables, their significant values, and the research model's R square. To evaluate how certain independent factors affect the dependent variable, one might utilize the R square value.

**Table 3. The Value of R Square**

<table>
<thead>
<tr>
<th>Variables</th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuance Intention</td>
<td>0.565</td>
<td>0.560</td>
</tr>
<tr>
<td>Trust</td>
<td>0.570</td>
<td>0.566</td>
</tr>
</tbody>
</table>

*Source: Processed data (2023)*

A hypothesis can be accepted if the significance threshold is 0.05 or the t-value is greater than the critical value, according to (Hair et al., 2014). The 5% significance level's t-statistic value is 1.96.

Analyzing the t-statistics produced by the inner model allows one to test the direct effect hypothesis. The study hypothesis is approved if the t-statistic value is greater than 1.96.

**Table 4. Direct Path Analysis**

<table>
<thead>
<tr>
<th>Variables</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Absorption -&gt;</td>
<td>2.844</td>
<td>0.005</td>
</tr>
<tr>
<td>Continuance Intention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive Absorption -&gt;</td>
<td>2.286</td>
<td>0.023</td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Usefulness -&gt;</td>
<td>12.929</td>
<td>0.000</td>
</tr>
<tr>
<td>Continuance Intention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Usefulness -&gt;</td>
<td>16.135</td>
<td>0.000</td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust -&gt; Continuance Intention</td>
<td>4.762</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Source: Processed data (2023)*

Table 4 shows that there is the significant direct relationship from each of the independent variables to the dependent variable studied. T-
statistics values that exceed 1.96 and p values that are greater than 0.05.

Table 5. Indirect Path Analysis

<table>
<thead>
<tr>
<th></th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Absorption -&gt; Trust</td>
<td>1.872</td>
<td>0.062</td>
</tr>
<tr>
<td>Trust -&gt; Continuance Intention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Usefulness -&gt; Trust</td>
<td>4.669</td>
<td>0.000</td>
</tr>
<tr>
<td>Trust -&gt; Continuance Intention</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed data (2023)

However, related to the indirect relationship, trust does not mediate the relationship between continuance intention and cognitive absorption. Thus, there are insignificant mediating relationship between the variables studied. This is indicated by the small t-statistics value of 1.96 and the p value greater than 0.05.

Discussion

This study is about the effects of perceived usefulness and cognitive absorption, direct and indirect effects, on the users' interest in continuing to purchase using the e-commerce application. The mediating variable trust is the precursor of the indirect influence between variables.

According to the analysis's findings, all hypotheses pertaining to the direct relationship between variables are deemed to be significant and positive. The results of earlier study support this. Although trust plays a role in mediating the relationship, there is insignificant direct effects between cognitive absorption and continuation intention. This is a result of variations in user behavior and traits on e-commerce platforms.

In accordance to the Visinescu et al., (2015) research findings, different people's experiences of cognitive absorption will affect how these users perceive the world and behave. This supports the idea that users with different origins will exhibit various behavioral tendencies. It is known that most users of the e-commerce platform access it for less than three hours per day based on the characteristics of the research respondents. They will naturally behave differently from users who utilize the e-commerce platform for longer periods of time. This is consistent with Lin’s (2009) findings. According to Lin's (2009) research, users who are actively engaged with the platforms they use will be more likely to enter a state of cognitive absorption (H. F. Lin, 2009).

This study's use of trust had no positive effects on the relationship between continuance intention and cognitive absorption. This is brought on by users' attitudes, who disregard the importance of trust when making purchases online. They are typically consumers who haven't done enough online shopping. Therefore, the role of trust is not required to influence online shoppers' interest in doing so at a later time once they start to feel invested in the shopping applications they use.

Conclusions

Based on the research analysis's findings, it is possible to draw the conclusion that cognitive absorption, perceived usefulness factors have the significant direct impact on e-commerce platform users' intention to stick around. The trust variable has a few impact on an indirect relationship between cognitive absorption and continuance intention. The characteristics of respondents who use e-commerce applications contribute to this.

This study makes a significant contribution to business players who are beginning to sell their products using digital technologies. Additionally, innovators who want to launch or are already launching start-ups in the e-commerce sector acquire a general understanding of how users of e-commerce platforms behave so they can develop a business strategy that fits the nature of its consumers.

The respondents characteristics polled are limitation of this study. The majority respondents use the e-commerce site just once or twice a day. Thus, it is unclear what effect cognitive
absorption has. Therefore, it is advised to survey users who use e-commerce platforms more frequently for additional research.

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