

## **The Antecedents and Consequences of Online Impulse Buying during Pandemic COVID-19 Do consumers regret doing online impulse buying?**

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### **ABSTRACT**

*Online shopping became a consumer choice during the covid 19 pandemic, this study aims to analyze the antecedents and consequences of impulsive purchases at online stores during the covid 19 pandemic. Data were collected online from 202 respondents who had made purchases at e-stores in Jakarta and surrounding areas. . The data were analyzed using structural equation modeling. The results showed that flow state had a positive and significant effect on online impulse buying, while risk perception and customer satisfaction had no significant effect. However, customer satisfaction is influenced by perceived usefulness and E-store performance confirmation, while flow state is influenced by task skills and task challenges. The results of the last hypothesis in this study found a positive effect of online impulse buying on post-purchase regret.*

**Keywords:** Online Impulse Buying, Expectation Confirmation Model; Flow Theory; Perceived Risk; Post-Purchase Regret

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### **INTRODUCTION**

The growth of e-commerce in Indonesia has increased rapidly during the covid-19 pandemic, which is influenced by the increasing number of internet users, social media that continually grows, and is also influenced by the emergence of marketplaces that can be accessed via smartphones, which can make it easier for people to do online shopping during the covid-19 pandemic. Many people have never shopped online before, but during the Covid-19 era, now, people rely on online shopping platforms to fulfill their daily needs. This is done by the community to prevent and avoid the risk of spreading COVID-19. Slickdeals (2020) surveyed a sample of about 2,000 Americans on a leading online shopping platform and found that consumers are making more impulse purchases during the COVID-19 pandemic than before the pandemic. The same thing was experienced by the people of Indonesia, where the number of sales transactions of one of the marketplaces in Indonesia in 2020 experienced a significant increase in sales, and during the four quarters of 2020, it was always in the highest

position for the highest number of e-commerce visits (<https://databoks.katadata.co.id/>, 2020). It is suspected that transactions made by consumers also occur due to impulsive consumer behavior. Even though Covid-19 is spreading, where the government has set rules for limiting community activities, online purchases are increasing. According to Wu, Chiu, & Chen, (2020), more than 50 % of online shopping has been classified as impulse buying. Madhavaram and Laverie (2004) suggest that online shopping spurs impulse buying because consumers can easily browse product information in an online context. Park et al. (2012) also show that browsing is an important predictor of consumers' online impulse buying (Zhang and Xu, 2018). In principle, impulsive shoppers usually do not control their innate behavior to visit online stores (Wells et al., 2011). Online shoppers are somewhat involved in a discrete psychological state from unplanned and sudden behavior towards the purchase decision process, which makes it difficult for retailers to predict (Floh and Madlberger, 2013, Tanveer, Mehmood&Ahmad, 2018).

Impulse buying online involves a complex shopping process because virtual stores will pose more risks to consumers such as financial risk (like fraud), product risk (defective product), and security problems in communicating. But in fact, the many risks that must be considered do not reduce consumers' shopping intentions, they still make impulse purchases online. They are influenced by website attributes, such as visual appeal, communication style, and security (Wang & Herrando, 2019). Bhattacharjee, (2011) has applied the expectation-confirmation model to examine how design features affect e-store usage. When acting as system users, online consumers use e-stores to interact to find various product-related information, such as product features, order placement, payment, and delivery. Perceived usefulness by system users is defined as post-adoption beliefs in the use of information technology and shows an important relationship with satisfaction (Bhattacharjee, 2001). Impulsive buyers involve psychological states that allow unplanned purchases because these decisions are difficult for them to control (Zheng et al., 2019). Flow theory is often used to capture the emotional state of consumers regarding the balance of task skills and task challenges for online experiences (Chan et al., 2017). Several studies have shown that task skills and task challenges in e-store experiences are very important in encouraging customers to continue using e-stores in online shopping (Engeser and Rheinberg, 2008; Guo & Poole, 2009). The reason is, these two things are determinants of shopping enjoyment and become a means to avoid boredom. With the perceived risk, then the expectation-confirmation model process and the flow theory process, this study will also investigate further after online impulse purchases made by consumers, to see if there is a sense of regret felt by consumers after making online impulsive purchases or feeling happy. Overall, this study discusses the problem of online impulse buying which is related to perceived risk, ECM, and flow theory which further measures consumer regret after the impulse purchase.

## **LITERATURE REVIEW**

### *Online Impulse Buying*

Online impulse buying is an unplanned individual behavior that has a strong interaction with e-stores for spontaneous purchases (Wu et al., 2020). Zeng (2011) concluded that online impulse buying is the result of a consumer's immediate reaction to stimuli during web browsing to purchase and the stimulation comes mainly from what consumers see on the internet.

### *Perceived Risk*

Perceived risk is the nature of subjective loss, where the perceived risk is the risk that is perceived in the process of purchasing products, both goods, and services, consumers cannot take into account the pros or cons of the purchase results, the consequences resulting from

uncertain assessments or questions (Xue, 2015). Perceived risk is defined as consumer beliefs about uncertain negative outcomes from online transactions (Kim, Ferrin, & Rao, 2008).

#### *Expectation Confirmation Model (ECM)*

The Expectation Confirmation Model (ECM) is a model used to examine the behavior of intentional sustainability of the implementation of an information system. Bhattacharjee (2011) developed and tested an ECM information system empirically by underlying significant differences between initial acceptance and continuation in the context of using information systems. In particular, ECM proposes two main drivers of performance confirmation and perceived usefulness, which together are related to customer satisfaction and, in turn, sustained intention to use information systems (Bhattacharjee, 2011).

Satisfaction is the desires and expectations that are fulfilled, which is seen as the key to building and maintaining long-term customer loyalty: "Investing in customer satisfaction is like taking out an insurance policy (Bhattacharjee, 2011), If some temporary difficulties befall the company, customers will be more likely to stay loyal. (Anderson & Sullivan, 1993).

Confirmation is the user's perception of the suitability between the expected use of the information system and its actual performance (Bhattacharjee, 2011). Confirmation is operationalized in the ECT literature in three ways: objective, inferred and perceived (Yi, 1990). ECT starts from the assumption that the two main antecedents of satisfaction are the level of user confirmation and perceived usefulness (i.e., expectations after actual use) (Halilovic & Cicic, 2013).

Perceived usefulness and perceived ease of use are the main motivators of acceptance of information systems, (Bhattacharjee, 2011) assuming that it is possible that they also influence subsequent continuation decisions, perceived usefulness has an impact on attitudes substantively and consistently during both stages of information system use. Perceived usefulness is expected to be the most prominent retrospective expectation that influences the post-acceptance effect of users (satisfaction).

#### *Flow Theory*

Flow theory is a theory which states that when individuals are in the flow stage, they will immerse themselves deeply in inactivity in such a way that nothing else seems more important (Kleshchevnikova, 1984). Flow state is a psychological state regarding individual sensations as a reaction to environmental stimuli (Huang, 2016). When people are in a flow state, they feel deep pleasure, happiness, and joy (Mirvis, 1991). This model is characterized by a narrowing of the focus of consciousness, so that irrelevant perceptions and thoughts are filtered out, by a loss of self-awareness, by responses to clear goals and unambiguous feedback, and by a sense of control over the environment (Csikszentmihalyi, 1977). In the online context, task skills refer to consumers feelings of self-efficacy towards information technology to carry out shopping tasks in e-stores and task challenges show consumers' psychological experiences to respond to actions to navigate the e-store activities (Wu et al., 2020).

#### *Post-Purchase Regret*

Regret is a negative feeling that arises when a person realizes that his current decision is acceptable if they choose a different way Pieters & Zeelenberg (2007), Gabler et al. (2017). Post-purchase regret can be conceptualized as consumers' uncomfortable feelings about their previous actions or beliefs (Lazim et al., 2020)

#### **Hypothesis**

The concept of risk perception becomes an important concern in online commerce because customers deal with virtual stores which have greater uncertainty than with traditional stores (Shiau, Dwivedi, & Lai, 2018). Thus, perceived risk is a conspicuous barrier for consumers in

making purchasing decisions. The perceived risk here is defined as a consumer's hunch about the uncertain negative outcome of online transactions (Kim, Ferrin, & Rao, 2008). The hypothesis is stated as follows:

*H1: Perceived risk has a negative effect on satisfaction in using e-stores.*

Perceived usefulness is defined as post-adoption beliefs in the use of information technology and shows an important relationship with user satisfaction (Bhattacharjee, 2001a). For online shopping, customers are more likely to develop positive feelings for their shopping process with e-vendors, such as satisfaction, because online services are considered useful in their interactions to search and find product information (Lu and Chea, 2018; Panigrahi, Srivastava, & Sharma, 2018). Hypothesis stated:

*H2: perceived usefulness has a positive effect on satisfaction in using e-stores.*

Many studies have used the Expectation Confirmation Model as a theoretical basis for examining these links for online contexts, including impulse buying, mobile trading, and social trading (Li & Ku, 2018; Lu et al., 2019; Wu et al., 2016). In particular, one study proposed a research model by integrating ECM with trust and habit moderators to determine the factors that influence repeat purchase intentions in online group purchases (Hsu, Chang, & Chuang, 2015). They found that online service, due to evaluation for confirmation, positively affects consumer satisfaction and, in turn, intention to repurchase. The hypothesis is stated as follows:

*H3: E-store performance confirmation has a positive effect on satisfaction in using e-stores.*

For the role of task skills, one study proposed a research mode with flow state as the main mediator to examine online impulse buying through multiple sets of drivers (Wu et al., 2016). This driver consists of tasks, website design, and trust-related attributes to link to the state of the stream. The results of the study reported that task skill, one of the task attributes, showed a significant effect on flow state. Hoffman and Novak (1996) suggested a number of major attentional circuits related to flow state, including task, interactivity, telepresence, and attributes related to focused attention, in computer-mediated communication channels. Their findings suggest that task challenge, one of the attributes of a task, is an important factor in determining flow status. The hypothesis is stated as follows:

*H4: Task skills have a positive effect on flow state in online shopping*

For the role of task challenge, one study addresses the importance of flow state in using computer-mediated systems through mediator task components of web technology-related drivers, such as website design and interactive speed (Finneran & Zhang, 2005). This study designed an experimental scenario of using a website to discover how task challenges affect flow experience levels. Further studies seek to develop a research model to investigate the current state of online hotel booking operations in terms of defining antecedents and consequences (Bilgihan et al., 2014). These drivers include clear goals, task challenges, web design (interactivity, clarity, perceived usefulness), and media richness when consequences indicate user satisfaction, intention to use, brand equity, and purchase intention. The findings report that task challenges are a major precursor to driving flow conditions in processes. The hypothesis is stated as follows:

*H5: Task challenge has a positive effect on flow state in online shopping.*

Several studies have shown that customer satisfaction is associated with a flow state with a strong relationship to consumer impulse buying behavior (Parboteeah et al., 2009; Verhagen & van Dolen, 2011). An integrated model with the task- and mood-relevant environmental cues (i.e., web characteristics and product information) has examined online impulse buying as consideration for shopping enjoyment (flow state type) and understanding usefulness for the two mediators (Parboteeah et al. (2009) As defined in ECM, perceived usefulness is a well-known determinant of customer satisfaction. The hypothesis is stated:

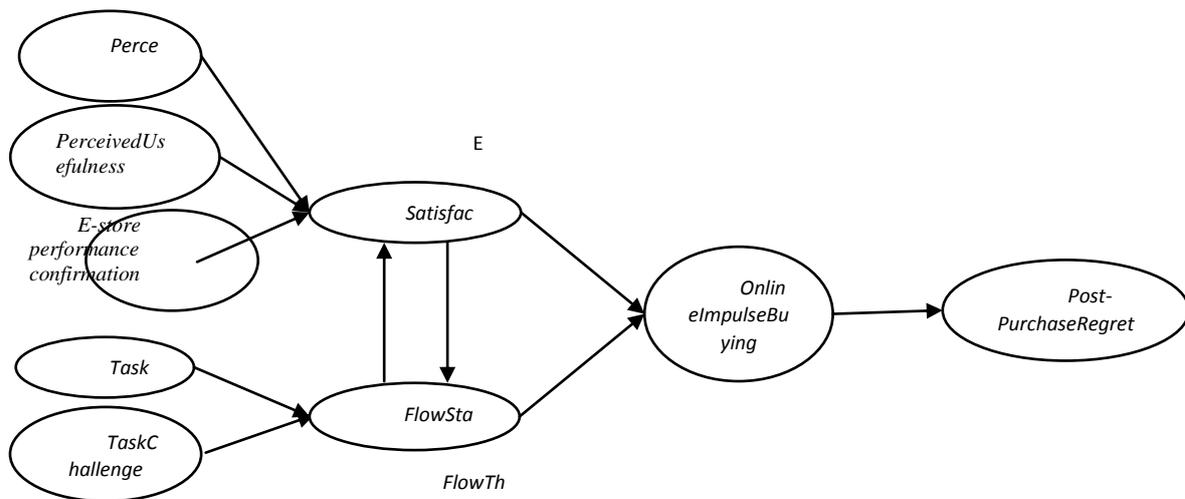
*H6: Satisfaction has a positive effect on flow state in online shopping.*

To link flow state with satisfaction, online customers may enjoy sudden purchase decisions and then be able to see something related to e-stores that will provide greater satisfaction (Ali, 2016). That is, online customers may tend to reduce the complexity of the decision process to develop positive attitudes towards e-store use. Many studies have shown a positive relationship between flow state and customer satisfaction in using online stores (Hsu, Chang, & Chen, 2012; Sharma & Sharma, 2019). Hypothesis stated:

*H7: Flow state has a positive effect on satisfaction in online shopping.*

Customer satisfaction with online stores is very important in determining shopping at e-stores in addition to product quality and other product information. Thus, if customers have positive experiences using e-stores, they will tend to make online purchases (Wells et al., 2011; Zheng et al., 2019). There is a relationship structure to how website cues, such as product availability and visual appeal, affect mediating factors, such as user satisfaction or satisfaction and normative evaluations, and thus influence online impulse buying targets (Liu et al., 2013). These results indicate that user satisfaction has a positive and significant effect on online impulse buying. In addition, a conceptual model has been proposed to investigate online impulse buying according to drivers of electronic service quality and mediators of customer satisfaction (Bressolles, Durrieu, & Giraud, 2007). In the study, the quality of e-service includes information, ease of use, website design, reliability, security/privacy, and interactivity/personalization. The results show an important relationship between customer satisfaction and online impulse buying. The hypothesis is stated as follows:

*H8: Satisfaction has a positive effect on online impulse buying in online shopping.*



**Figure 1. Conceptual Framework**

## METHODS

This study aims to test the hypotheses on the influence of several variables. The variables of ECM, e-store performance confirmation, perceived usefulness, and satisfaction are adapted from the scales developed by Bhattacharjee (2001b) and Koufaris (2002), each including four items. For perceived risk, is defined with four attributes, finance, product, recommendation, and security, and are adapted from the scales defined by Kim et al. (2008) and Chiu et al. (2014), including 4 items. For flow theory, task skill and challenge are measured by scales adapted from Koufaris (2002), with 4 items for each. A flow state is defined as a second-order

formative structure, including enjoyment, control, and concentration. It is adapted from the instruments developed by Koufaris (2002) and Guo and Poole (2009), with three items for each. For online impulse buying, it is measured from the definitions adapted by both Rook and Fisher (1995) and Parboteeah et al. (2009), with 3 items.

All variables were measured using a Likert scale of 1 – 5 where 1 = strongly disagree to 5 = strongly agree. The sampling method used is purposive sampling, namely sampling based on considerations. In this study, the consideration of respondents who can be sampled is Indonesian citizens who have experience in online impulse buying in the last six months. Data were collected by distributing questionnaires to 253 respondents, the data that could be processed were 202 respondents.

**Table 1. Respondents Profile**

Characteristics		Sum	(%)
<b>Sex</b>	: Male	90	35,57%
	Female	163	64,43%
<b>Age</b>	: 15-19 Years old	1	0,40%
	20-24 Years old	55	21,74%
	25-29 Years old	156	61,66%
	30-34 Years old	30	11,86%
	35-39 Years old	6	2,37%
	>40 Years old	5	1,98%
<b>Domicile</b>	: Jabodetabek	197	77,87%
	Outside Jabodetabek	56	22,13%
<b>Education Level :</b>	High school	5	1,98%
	Diploma (D1-D4)	21	8,30%
	S1	213	84,19%
	S2	14	5,53%
	S3		0,00%
<b>Occupation</b>	: Student	16	6,32%
	Government employees	23	9,09%
	State Owned Enterprise	59	23,32%
Staff	Private companies	97	38,34%
	Entrepreneur	20	7,91%
	Freelance	11	4,35%
	Other	27	10,67%
<b>Income</b>	: Rp 1.000.000 – Rp	58	26,87%
	5.000.000 Rp 5.000.001 – Rp	148	58,50%
	10.000.000		

Characteristics		Sum	(%)
>Rp 10.000.000		37	14,62%
<b>impulse shopping</b>			
<b>experience</b>	: Often	150	59,29%
	Sometime	99	39,13%
	Seldom	4	1,58%
<b>Time exploring e-store</b>	: <1 hour	75	29,64%
	1-2 hours	105	41,50%
	2-3 hours	40	15,81%
	>4 hours	33	13,04%
<b>Shopping Frequency (6 months)</b>			
	Once	12	4,74%
	2-3 times	78	30,83%
	4-5 times	51	20,16%
	>5 times	112	44,27%

Respondents were dominated by female consumers as many as 163 people or 64.43%, with an age range of 25-29 years as many as 156 people or 61.66%, domiciled in Greater Jakarta as many as 197 people or 77.87%, with the last education S1 as many as 214 people or 84.19%, who have jobs, as private employees as many as 97 people or 38.34%, who have incomes ranging from Rp. 5,000,000 - Rp. 10,000,000, namely 148 people or by 58.50%, the number of respondents often or not making impulse purchases at e-stores, the results are dominated by online consumers who answered often as many as 150 people or 59.29%, the time spent by respondents in exploring e-stores store in a day, dominated by online consumers who answered 1-2 hours, as many as 105 people or 41.50%, and the frequency of respondents making impulse purchases online at e-stores in six months lastly, it was dominated by online consumers who answered more than five times, namely as many as 112 people or 44.27%.

To test the quality of the data obtained from the results of distributing questionnaires, it is necessary to test the validity and reliability.

Confirmatory Factor Analysis (CFA) is one of the analytical tools used to test the validity of this study. Confirmatory Factor Analysis (CFA) aims to test the indicators that have been seen based on the variables whether they are appropriate to measure these variables or not. The basis for making a decision on the validity test based on the number of samples is as follows if Factor Loading < 0.35, then the statement item is invalid, if Factor Loading 0.35, then the statement item is valid. From the results of data processing, it is found that the factor loading value for all indicators used in this study is > 0.35 so that it is declared valid. The reliability test aims to see the consistency between indicators of a variable. The value of the Cronbach's Coefficient Alpha indicates that the measuring instrument used is reliable, which is 0.60 to 0.70 or more (Sekaran & Bougie, 2016). The results of data processing indicate that all instruments in each variable in this study are declared reliable because they have Cronbach's Alpha values greater than 0.6.

**Table 2. Validity and Reliability Testing**

<b>Variable</b>	<b>Loading Factor</b>	<b>Cronbach's Alpha</b>	<b>Result</b>
<b><i>Online Impulse Buying</i></b>		0,747	Reliable
OIB1	0,655		Valid
OIB2	0,807		Valid
OIB3	0,645		Valid
<b><i>Post-Purchase Regret</i></b>		0,745	Reliable
PPR1	0,706		Valid
PPR2	0,754		Valid
PPR3	0,478		Valid
PPR4	0,706		Valid
PPR5	0,356		Valid
<b><i>Perceived Risk</i></b>		0,908	Reliable
PR1	0,777		Valid
PR2	0,803		Valid
PR3	0,824		Valid
PR4	0,852		Valid
<b><i>Perceived Usefulness</i></b>		0,937	Reliable
<i>PU1</i>	0,826		Valid
<i>PU2</i>	0,895		Valid
<i>PU3</i>	0,863		Valid
<i>PU4</i>	0,815		Valid
<b><i>E-store Performance Confirmation</i></b>		0,918	Reliable
EPC1	0,893		Valid
EPC2	0,852		Valid
EPC3	0,749		Valid
EPC4	0,699		Valid
<b><i>Task Skill</i></b>		0,865	Reliable
TS1	0,603		Valid
TS2	0,672		Valid
TS3	0,868		Valid
TS4	0,887		Valid
<b><i>Task Challenge</i></b>		0,934	Reliable

<b>Variable</b>	<b>Loading Factor</b>	<b>Cronbach's Alpha</b>	<b>Result</b>
TC1	0,761		Valid
TC2	0,885		Valid
TC3	0,903		Valid
TC4	0,871		Valid
<b>Satisfaction</b>		0,950	Reliable
S1	0,865		Valid
S2	0,915		Valid
S3	0,871		Valid
S4	0,873		Valid
<b>Flow State</b>		0,935	Reliable
FS1	0,709		Valid
FS2	0,803		Valid
FS3	0,826		Valid
FS4	0,698		Valid
FS5	0,888		Valid
FS6	0,899		Valid
FS7	0,763		Valid
FS8	0,675		Valid
FS9	0,772		Valid

The data analysis method in this study uses SEM (Structural Equation Modeling) analysis. Before testing the hypothesis, the model suitability test (Goodness of Fit / GOF) was carried out with the following results: RMSEA value of 0.069 ( $\leq 0.08$ ) so it can be said that this model is fit. The criteria are based on the Incremental Fit Measure, TLI 0.885, CFI 0.898, and GFI 0.754 (Around 0.8/close to 0.9) so that the key is goodness. The criteria are based on the Parsimonious Fit Measure by looking at the normed chi-square (CMIN/DF) of 1425.55 and the probability value of 0.000, so the key is fit. According to Hair et al. (2019) when one of the criteria of goodness of fit can be met, then this model is eligible to be declared or goodness of fit. Based on the above model testing using the Absolute Fit Measures and Parsimonious Fit Measures approaches, it can be concluded that the fit is good. So, the model can be said to be feasible to continue with the next test, namely hypothesis testing.

## RESULT AND DISCUSSION

Hypothesis testing using Structural equation modeling obtained the following results:

**Table 3. Hypothesis Testing**

<b>Hypothesis</b>	<b>Description</b>	<b>Estimate</b>	<b><i>p</i>- value</b>	<b>Result</b>
H1	Perceived risk has a negative effect on satisfaction in using e-stores.	-0,067	0,167	Not supported
H2	Perceived usefulness has a positive effect on satisfaction in using e-stores.	0,325	0,000	Supported
H3	E-store performance confirmation has a positive effect on satisfaction.	0,332	0,000	Supported
H4	Task skills have a positive effect on flow state in online shopping.	0,597	0,000	Supported
H5	Task challenge has a positive effect on flow state in online shopping.	0,524	0,000	Supported
H6	Satisfaction has a positive effect on the flow state in online shopping.	-0,284	0,097	Not supported
H7	Flow state has a positive effect on satisfaction in online shopping.	0,414	0,000	Supported
H8	Satisfaction has a positive effect on online impulse buying in online shopping.	-0,105	0,287	Not supported
H9	Flow state has a positive effect on online impulse buying in online shopping.	0,876	0,000	Supported
H10	Online impulse buying has a positive effect on post-purchase regret in online shopping.	0,76	0,000	Supported

*Source : Amos 26*

The results of the hypothesis test show that H1 has a negative and insignificant effect on satisfaction with a p-value of  $0.165 > 0.05$ , which means that hypothesis 1 is not supported. The test results for hypothesis 2 are supported by a p-value of  $0.000 < 0.05$  and an estimate of 0.325. H3 tested the positive effect of e-store performance confirmation on satisfaction, it was obtained a p-value of  $0.000 < 0.05$  and an estimate of 0.332 which shows that hypothesis 3 is supported. H4 tests the positive effect of task skills on the flow state and H5 tests the positive effect of task challenges on flow state, both of which have a p-value of  $0.000 < 0.05$ , which means that both hypotheses are supported. H6 tests the positive effect of satisfaction on the flow state and has a p-value of  $0.097 > 0.05$ , which means that this hypothesis is not supported. H7 tests the positive effect of flow state on satisfaction which has a p-value of  $0.000 < 0.05$  and an estimated value of 0.414, which means this hypothesis is supported. H8 tests the positive effect of satisfaction on online impulse buying, which has a p-value of  $0.287 > 0.05$ , which means that this hypothesis is not supported. H9 tests the positive effect of flow state on online impulse buying which has a p-value of  $0.000 < 0.05$ , which means this hypothesis is supported. And finally, H10 tested the positive effect of online impulse buying on post-purchase regret which has a p-value of  $0.000 < 0.05$ , which means that this hypothesis is supported.

## DISCUSSION

From the results of the study, it was found that perceived risk had no impact on satisfaction, meaning that consumer beliefs about the uncertain negative results of online transactions were not a conspicuous barrier for consumers in conducting online transactions. For the ECM issue, perceived usefulness and E-store performance confirmation show a positive effect on consumer satisfaction. it means that consumers' positive belief in perceived

usefulness in e-stores leads to a positive attitude towards a better and more pleasant shopping experience, to increase consumer satisfaction in the e-store. From flow theory, task skills and task challenges show a significant positive effect on flow state which means that the more confident consumers are with task challenges, the more likely they are to enjoy the shopping experience. Thus, if consumers enjoy the challenge of shopping with the confidence or task skills they have to perform a shopping task well, this will elicit a positive emotional reaction (a state of flow). These results are by the research of Wu et al. (2020). Furthermore, consumer satisfaction during navigating the e-store does not affect consumer psychology to provide an emotional response in purchasing decisions. On the other hand, the flow state can affect consumer satisfaction, meaning that when consumers can enjoy their shopping experience, shopping satisfaction will increase. The satisfaction felt by consumers does not have an impact on impulse purchases in e-stores, this is possible because the research was conducted during the covid-19 pandemic which made consumers so careful in making purchasing decisions. Consumers navigate e-stores just to find the products they need. So that the satisfaction felt by consumers when navigating in e-stores is not a factor that influences consumers to make impulse purchases. The flow state relationship to impulse buying shows a positive and significant influence, meaning that consumers who spend a lot of time exploring e-stores, and inflow states where consumers are so focused on exploring something ultimately influence consumers to make impulse purchases. Furthermore, impulsive consumer behavior makes them regret because it could be that the products they buy don't need them, this result is by Risqiani's research (2015)

## CONCLUSION AND IMPLICATION

Based on the results of the study, it can be concluded that there is no effect of the perceived risk variable on the satisfaction felt by consumers in doing shopping tasks. Then the perceived usefulness or the benefits felt by consumers and the ease of accessing e-stores make consumers feel satisfied in finding the products they are looking for. Likewise, with e-store performance confirmation, it was found that based on cues the realization of benefits felt by consumers in navigating the e-store made consumers feel satisfied in doing shopping tasks. Meanwhile, satisfaction was found to not affect flow state and also no effect on online impulse buying. So, it can be concluded that the satisfaction felt by consumers in navigating the e-store does not make consumers focus on doing these shopping activities until they lose consciousness or are not controlled which causes them to finally be stimulated to make impulse purchases. Furthermore, it was found that task skill and task challenge both had a positive effect on the flow state. Confidence in the skills that consumers have, namely feeling expert and able to overcome the problems that exist when navigating the e-store, makes consumers feel there is a challenge for themselves to show their best skills which flow makes consumers deeply focused on navigating e-stores. store. Later in this study found that the flow state itself has a positive effect on satisfaction and also has a positive effect on online impulse buying. When consumers' attention is focused on shopping activities in e-stores, making consumers feel satisfied, happy, and comfortable in carrying out these activities, and flowing, causing consumers to be stimulated to make impulse purchases, then feel sorry after making the impulsive purchase.

For further research is expected; First, do further research specifically on one particular object, so that the results obtained are more specific. Second, adding other data collection methods and increasing the number of samples. Third, in further research, it can be expanded to flow state variables with hedonic models with internal and external motivations (Wu et al., 2020). For marketing managers in e-stores who want to improve system services to consumers, and reduce the risk that becomes a barrier for consumers to decide to make impulse purchases online, they can offer guarantees (reducing the risk of defective and fraudulent products), reliable recommendations both quality and price, good reputation and reliable information so

that consumers are sure to decide to shop at the e-store. To increase consumer impulse buying in online shopping, marketers should create an attractive web design and with access that makes it easier for consumers to see various products as a whole so that consumers feel more adventurous, comfortable, and happy so they feel satisfied in exploring e-stores.

In addition, it is also necessary to add a variety of products that are interesting, varied, up to date, and with product information as complete as possible. With a guarantee that the product offered is by the one in the picture. And also, by offering sales promotions so that consumers are more stimulated to make impulse purchases. This is expected to have a good influence on the e-store. Consumers who are happy to browse e-stores and feel satisfied, then make an impulse purchase are expected to feel happier and satisfied post-purchase. Do not feel sorry for the existing expectations and even have the intention to make repeat purchases and become loyal to the e-store.

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