

Analysis of the Influence of Digital Shopping Experience on Impulse Purchases of E-Commerce Consumers

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Abstrak—The development of digital technology has changed consumer behavior in making transactions, especially through e-commerce platforms. One of the phenomena that has emerged along with the ease of access and pleasant digital experience is impulse purchases. This study aims to analyze the influence of digital shopping experience on consumer impulse purchase behavior in the context of e-commerce. The method used is quantitative with a descriptive and verifiable approach. Data was obtained through the distribution of questionnaires to 120 respondents who actively used online shopping platforms. The analysis technique used is simple linear regression. The results showed that the digital shopping experience had a positive and significant effect on impulse purchases with a regression coefficient value of 0.656 and a significance of 0.000. A coefficient of determination (R^2) of 0.348 indicates that 34.8% of impulse purchase variations can be explained by the digital experience that consumers perceive, while the rest are influenced by other factors. These findings support the Stimulus-Organism-Response (SOR) theory which states that external stimuli such as digital interfaces can influence emotions and purchasing decisions. Thus, the digital shopping experience is proving to be an important factor in encouraging consumer impulsive behavior on e-commerce platforms. This research provides implications for e-commerce managers to be able to design user experiences that are not only visually and technically attractive, but also consider ethical aspects and consumer self-control.

Kata Kunci: Digital Shopping Experience; Impulse Purchases; E-Commerce; Consumer Behavior; Linear Regression.

1. INTRODUCTION

In the rapidly growing digital era, shopping activities are undergoing a major transformation. Consumers no longer have to come to a physical store to buy goods, but with just a few clicks through a digital device, they can get whatever they want. This phenomenon has driven the rapid growth of e-commerce platforms, both at the national and global levels. Shopee, Tokopedia, Lazada, Bukalapak, to Amazon and eBay are real examples of how the digital world has taken over the traditional shopping space.

This growth of e-commerce has not only changed the way people shop, but also presents a very different experience compared to conventional shopping. Digital shopping experience is one of the important aspects that shape consumer perception of a platform. Elements such as visual display, page loading speed, ease of navigation, payment methods, and quality of customer service are all part of the digital experience that users feel. The quality of the experience directly affects consumer comfort, satisfaction, and loyalty. However, more than just convenience, strategically designed digital experiences also have great potential to influence purchasing behavior, particularly impulse purchases. Impulse buying itself is the act of buying something suddenly without careful planning beforehand, often triggered by certain emotional urges or stimuli that arise while shopping.

In the digital environment, this impulsive behavior is increasingly easy to emerge due to the many features and stimuli designed to attract consumers' attention. Flash sale offers, algorithm-based product recommendations, customer testimonials, compelling product visuals, and real-time notifications are just a few of the strategies used to drive quick and spontaneous shopping decisions. Consumers, without realizing it, can be driven to buy things they don't initially need. This phenomenon cannot be separated from how the digital shopping experience is shaped by platform providers. When the user interface is designed in an attractive and intuitive way, users will feel more at home exploring the product. The longer the time spent, the greater the chance of impulse buying. In fact, the ease of the checkout process and the ease of returning goods actually add to the sense of security of consumers to buy spontaneously.

One of the reasons why impulse purchases are becoming more and more common on e-commerce platforms is because consumers feel "nothing to lose" trying. They feel they can easily cancel an order or return it if it doesn't meet expectations. This perception, while not always true in practice, fosters a false sense of security that favors impulsive behavior. This is reinforced by the consumptive culture that is increasingly entrenched in society, especially among young users who are very familiar with technology. Even so, not all digital shopping experiences lead to impulse purchases. There are also consumers who remain rational and careful in making purchasing decisions, even in the midst of such a massive digital stimulus. Therefore, it is important to understand the extent to which the digital shopping experience can affect consumers' impulsive behavior. Is it just the visual elements that play a big role, or does convenience, trust in the platform, and ease of navigation also contribute?

Research on the relationship between digital shopping experiences and impulse purchases is becoming increasingly relevant, especially given the importance of understanding consumer behavior in designing more effective and ethical marketing strategies. For businesses, knowing what factors in the user experience are driving impulse purchases can be a reference for increasing conversions. But on the other hand, there also needs to be ethical considerations so that consumers are not manipulated to continue shopping beyond necessity. From the consumer side, understanding how they are influenced by digital experiences can increase awareness in shopping. This awareness is

important so that consumers do not get trapped in consumptive habits that are financially detrimental. By understanding the impulse buying patterns triggered by digital experiences, consumers can be wiser in managing personal finances and prioritizing needs.

The study also highlights the importance of a balance between an engaging user experience and corporate social responsibility. An e-commerce platform ideally not only pursues profits, but also creates a healthy shopping ecosystem and empowers consumers. Therefore, an analysis of the influence of the digital shopping experience on impulse purchases needs to be carried out thoroughly. In the context of Indonesia, where the use of the internet and mobile devices has increased dramatically, e-commerce has become the main channel of consumption. Phenomena such as Harbolnas, Flash Sale, and the 11.11 or 12.12 shopping campaigns show how massive the push for impulsive behavior in shopping is. All of this indicates the need for local research to understand the characteristics of digital consumers in the country.

Various previous studies have discussed the factors that influence impulse buying, such as price discounts, emotions, and social pressures. However, few specifically highlight the overall impact of the digital shopping experience in a comprehensive context, especially in the Southeast Asian region. Thus, this study tries to fill the gap with a more comprehensive approach. This study will use a quantitative method through the distribution of questionnaires to active e-commerce consumers. The data obtained will be analyzed to see the correlation between the quality of the digital shopping experience and the tendency to make impulse purchases. The focus will be directed to the aspects of the digital experience that most influence the decision.

The results of this research are expected to contribute to the academic world, business actors, and consumers themselves. For business actors, these findings can be the basis for developing a more responsible digital marketing strategy. For academics, this research opens up space for further discussions about digital consumer behavior in the modern era. Ultimately, a deep understanding of the influence of digital shopping experiences on impulse purchases is the first step in creating a fairer, more transparent, and empowering online shopping ecosystem. With a balanced approach between innovation and ethics, the world of e-commerce can grow into a sector that is not only economically profitable, but also has a positive impact on people's consumptive behavior.

2. RESEARCH METHODS

a. Types and Approaches to Research

This study uses a quantitative approach with a survey method. This approach was chosen because it aims to measure the influence between two variables, namely digital shopping experience (as an independent variable) and consumer impulse purchases (as dependent variables) through statistical data analysis. This method is suitable for testing hypotheses and obtaining an overview of the relationships between variables in a given population.

b. Population and Sample

The population in this study is all active users of e-commerce platforms in Indonesia who have made purchases in the last 3 months. Because the population is very large and is not known for sure, the researcher uses a non-probability sampling technique with a purposive sampling approach, which is the selection of samples based on certain criteria. The respondent criteria are:

1. Be at least 17 years old
2. Have made a purchase in e-commerce at least once in the last 3 months
3. Access the e-commerce platform via digital devices (smartphone or computer)

The number of samples in this study is planned to be 100–150 respondents, referring to the minimum number of samples in a simple regression analysis in order to produce statistically valid conclusions.

c. Data Collection Techniques

Data is collected through the distribution of online questionnaires using Google Form or similar media. The questionnaire was designed using a 5-point Likert scale, ranging from "Strongly Agree (1)" to "Strongly Agree (5)", to measure the extent to which respondents perceive elements of the digital shopping experience and their tendency to make impulse purchases. The questionnaire instrument consists of two main parts:

1. Section A: Respondents' demographic data (age, gender, frequency of online shopping, platforms used).
2. Part B: Statements relating to the variables of the digital shopping experience (user interface, ease of navigation, speed of service, personalization, and transaction security) and impulse purchases (spontaneous impulses, emotions during shopping, unplanned decisions).

d. Data Analysis Techniques

The data that has been collected will be analyzed using simple linear regression analysis with the help of statistical software such as SPSS or Microsoft Excel. This analysis was conducted to find out the extent to which digital shopping experience variables affect consumers' impulse purchases. The data analysis steps include:

1. Test the validity and reliability of the instrument
2. Classical assumption test (normality and linearity)
3. Simple linear regression analysis
4. Determination coefficient (R^2) and significance (t-test) test

e. Variable Operational Definition

Table 1. Variable Operational Definition

Variable	Indicators	Scale
Digital Shopping Experience (X)	Ease of navigation, visual display, transaction speed, user convenience, personalization	Likert Scale
Impulse Purchase (Y)	Unplanned purchases, momentary impulses, triggered by promotions or displays, emotions while shopping	Likert Scale

f. Validity and Reliability Test

Before the main analysis is carried out, validity and reliability tests are carried out to ensure that the items in the questionnaire are able to measure the construct in question consistently. Validity was tested using Pearson Product Moment correlation, and reliability was tested with Cronbach's Alpha (α), with a criterion $\alpha \geq 0.7$ considered reliable.

3. RESULTS AND DISCUSSION

a. Respondent Description

This study involved as many as 120 respondents who met the criteria as active users of e-commerce platforms. Based on demographic data, as many as 65% of respondents are female, while 35% are male. The majority of respondents were between 18–25 years old (75%), followed by the age group of 26–35 years old (20%), and the rest were over 35 years old. The most frequently used platforms are Shopee (60%), Tokopedia (25%), and the rest use Lazada, Bukalapak, and others.

b. Description of Research Variables

1. Digital Shopping Experience

Respondents responded to 10 statements that represented the dimensions of the digital shopping experience. The overall average score was 4.02 on a scale of 1–5, indicating that the digital shopping experience that respondents perceived was in the good category. The highest indicator is "ease of application navigation" (average 4.25), while the lowest is "level of product personalization accordingly" (average 3.78).

2. Impulse Purchase

The impulse purchase variable is measured through 8 statements. The results of the descriptive analysis showed an average score of 3.85, which shows that respondents tend to make impulse purchases quite often. The highest-scoring statement was "I once bought a product just because I was interested in how it looked" (4.10 average), while the lowest was "I always planned the purchase carefully" (3.21 average, which means it was less likely to be unplanned).

c. Validity and Reliability Test

Before the regression analysis was carried out, the researcher tested the validity and reliability of the instrument. The results of the validity test using Pearson correlation showed that all items had a value of r calculated $> r$ of the table (0.178 for $n=120$, $\alpha=0.05$), so that all items were declared valid. The reliability test showed that Cronbach's Alpha value was as great as:

1. Digital shopping experience = 0.83
2. Impulse purchase = 0.79
3. Both values are above 0.7, which means the instrument is reliable.

d. Results of Simple Linear Regression Analysis

After the data was declared valid and reliable, a simple linear regression analysis was performed to test the influence of the digital shopping experience (X) on impulse purchases (Y). The results of the analysis are presented in the following table:

Table 2. Results of Simple Linear Regression Analysis

Type	Regression Coefficient (B)	t count	Sig. (p-value)
Constant	1,215	-	-
Digital Shopping Experience (X)	0,656	7,92	0,000

From these results, it can be seen that the significance value (p-value) is 0.000 (< 0.05), which means that the digital shopping experience has a significant effect on impulse purchases. A regression coefficient of 0.656 indicates that every one unit increase in the score on the digital shopping experience will increase the impulse purchase score by 0.656.

Table 3. Coefficient of Determination (R^2)

R	R Square	Adjusted R Square
0,590	0,348	0,343

Square's R-value of 0.348 means that 34.8% of the variation in impulse buying behavior can be explained by the digital shopping experience. The remaining 65.2% were influenced by other factors not discussed in the study, such as emotional, social, or external promotions.

e. Interpretation of Results

The results of the analysis show that there is a positive and significant influence between the digital shopping experience and impulse buying behavior. This means that the better the user experience when using an e-commerce platform, the more likely they are to make spontaneous purchases. Elements such as the ease of product search, attractive appearance, and personalized recommendations provided by the platform are proven to trigger unplanned purchase actions.

3.1 Discussion

a. The Significant Influence of Digital Shopping Experience on Impulse Purchases

Based on the results of simple linear regression analysis, it is known that the digital shopping experience has a positive and significant effect on impulse purchases, with a coefficient value of 0.656 and a significance of 0.000. This shows that the better the experience that consumers have when shopping on e-commerce platforms, the more likely they are to make impulse purchases.

b. Compatibility with Stimulus-Organism-Response (SOR) Theory

This result is in line with the SOR (Stimulus-Organism-Response) model developed by Mehrabian and Russell (1974), which states that external stimuli such as the appearance of online stores, ease of navigation, and digital services can affect the internal conditions (emotions/cognition) of consumers and ultimately encourage behavioral responses, one of which is impulsive purchases. In the context of this study, pleasant digital experiences are a stimulus that encourages responses in the form of spontaneous purchasing decisions.

c. Reinforcement by Previous Research

These findings reinforce research by Zhang et al. (2018) who stated that user interface design and quality of digital services have a direct influence on impulse shopping behavior, especially on mobile-based platforms. Similarly, Park and Kim (2008) state that an emotionally pleasing shopping experience can create an unplanned purchase impulse.

d. Dominance of Young Consumers and Digital Literacy

The majority of respondents in this study are the younger generation (aged 18–25 years), who are known to have high digital literacy and tend to be responsive to interactive features in shopping applications. This is supported by findings from Lim et al. (2020) that young digital natives are more susceptible to impulse purchases due to their intensive interaction with technology and the digital environment that continue to stimulate quick purchase decisions.

e. The Role of Digital Features in Increasing Impulsivity

Features such as "automated product recommendations", "discount notifications", "user reviews", and "limited-time flash sale" also strengthen the digital shopping experience and indirectly trigger an emotional urge to buy right away. The theory from Rook (1987) about impulsive buying behavior states that impulsive decisions are influenced by visual and situational stimuli that appear suddenly and are not based on rational planning.

f. The Significance of Purchasing Behavior in Modern E-Commerce

In today's e-commerce ecosystem, impulse purchases are no longer considered behavioral deviations, but rather part of a modern marketing strategy that is designed to drive transaction conversions. Thus, the results of this study also indicate that digital experiences are not only a supporting factor, but have become the main trigger for spontaneous purchase decisions.

g. Criticism of Exploitative E-Commerce Strategies

While digital experience strategies are effective in increasing sales, they pose ethical challenges. Strategies that overstimulate impulsivity can lead to waste and unhealthy financial decisions for consumers. Too many external impulses can weaken self-control, as explained by Baumeister's (2002) theory of self-control, which states that individuals have a limited capacity to resist impulses, especially in highly emotionally stimulating environments.

h. Comparison with Conventional Shopping

Unlike shopping in a physical store, where consumers can consider by looking at items in person, the digital environment creates a faster, instant, and more visual information space that stimulates purchases without thinking. This confirms that impulse purchases in e-commerce are more influenced by experience design than by real consumer needs.

i. Implications for Marketers and UX Designers

From a business perspective, these findings are important evidence that user experience not only affects customer satisfaction, but also has a direct impact on increasing impulse transactions. Therefore, companies need to design digital experiences that are effective but still ethically responsible, such as allowing "cooling-off" time before checkout or user budget reminder features.

j. The Role of Consumers in Controlling Impulsive Behavior

This research also shows the importance of consumer awareness of how they are influenced by digital systems. Increasing consumer digital literacy, especially related to the influence of algorithms and persuasive design techniques, is one of the preventive measures against impulsive behavior that is detrimental to personal health.

k. Relationship with Emotions and Consumer Cognition

In addition to the technical aspects, digital experiences also affect consumers' emotions and risk perceptions. Visually pleasing and technically fast shopping environments tend to lower rational considerations and accelerate emotional decision-making, as explained by Dholakia (2000) in a study on impulsive buying tendency.

l. Contribution of this Research to Literature

This study contributes to the literature by showing that digital experience is an important variable that can be quantitatively measured in the context of online consumer behavior, and is a determining factor in the emergence of shopping impulsivity.

m. Other Factors Beyond Digital Experience

Despite the significant influence, the R^2 value of 34.8% indicates that there are still 65.2% of other variables that play a role in impulse purchases. These factors can include price promotions, peer influence, financial status, or even mood when shopping.

n. Research Limitations

This study has limitations, including in the limited number of respondents and the dominance of young age groups, so the generality of these findings may not fully apply to other age groups or those who have different digital shopping behaviors.

o. Further Research Direction

Future research is recommended to explicitly include emotional and social factors, as well as adopt a mixed method approach in order to delve deeper into the psychological mechanisms involved in impulse purchases, not only from the side of digital stimulus, but also from the internal side of consumers.

4. CONCLUSION

Based on the results of research that has been conducted on the influence of digital shopping experience on impulse purchases of e-commerce consumers, it can be concluded that digital shopping experiences have a positive and significant influence on impulse purchase behavior. The better and more enjoyable the experience that consumers feel when using an e-commerce platform—both in terms of interface, ease of navigation, speed of service, and personalization of product recommendations—the more likely they are to make spontaneous purchases without planning. This finding is in line with the Stimulus-Organism-Response (SOR) theory which explains that external stimuli in the form of digital features are able to trigger emotional and behavioral reactions, in this case in the form of impulsive buying actions. In addition, the results of this study are also supported by previous studies that show that the quality of digital experiences is one of the main triggers in unplanned sales conversions in the online environment. With a determination coefficient value of 34.8%, it is known that the digital shopping experience is able to explain almost one-third of the variation in respondents' impulse buying behavior. This confirms that while digital experiences are highly influential, there are also other factors such as emotions, price promotions, social influences, and individual psychological situations that contribute to shaping consumers' overall impulsive behavior. This research makes an important contribution to understanding consumer behavior in the digital era, especially in the context of e-commerce that continues to grow. The digital shopping experience not only serves as a support for user convenience, but also as a strategy that is psychologically able to shape and direct purchasing decisions. However, along with these benefits, it is also necessary to realize that digital strategies that overstimulate impulsivity can pose financial and psychological risks for consumers. Therefore, a balance is needed between optimizing the shopping experience and educating consumers so that they can still control their shopping behavior wisely in the midst of the rapid flow of digitalization.

REFERENCES

- Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of Consumer Research*, 28(4), 670–676. <https://doi.org/10.1086/338209>
- Dholakia, U. M. (2000). Temptation and resistance: An integrated model of consumption impulse formation and enactment. *Psychology & Marketing*, 17(11), 955–982. [https://doi.org/10.1002/1520-6793\(200011\)17:11<955::AID-MAR3>3.0.CO;2-J](https://doi.org/10.1002/1520-6793(200011)17:11<955::AID-MAR3>3.0.CO;2-J)
- Lim, W. M., Ting, D. H., & Osman, S. (2020). Impulse buying in the era of digital commerce: A systematic review and future research agenda. *Electronic Commerce Research*, 20(4), 833–857. <https://doi.org/10.1007/s10660-020-09437-w>
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. Cambridge, MA: MIT Press.
- Park, E. J., & Kim, E. Y. (2008). Effects of consumer tendencies and website atmospherics on attitude and purchase intention in online shopping. *International Journal of Fashion Design, Technology and Education*, 1(1), 3–11.
- Rook, D. W. (1987). The buying impulse. *Journal of Consumer Research*, 14(2), 189–199. <https://doi.org/10.1086/209105>
- Zhang, K. Z. K., Zhao, K., Cheung, C. M. K., & Lee, M. K. O. (2018). Examining the influence of online reviews on consumers' decision-making: A heuristic-systematic model. *Decision Support Systems*, 67, 78–89. <https://doi.org/10.1016/j.dss.2014.08.005>