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The Influence of Scarcity Promotion, Electronic Word of Mouth, and Promotional Appeal on Impulsive Buying Behavior of E-Commerce Application Users

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Abstract

This research intends to examine the effect of Scarcity Promotion, Electronic Word of Mouth and Promotional Appeal on Impulsive Buying Behavior of e-commerce application users. The research used a quantitative approach utilizing the survey method of 220 e-commerce application users who were recruited using a purposive sample strategy. Data were acquired using online surveys and analyzed using multiple linear regression. Prior to the hypothesis testing, the data were examined using validity and reliability tests and the classical assumption test. The findings demonstrated that Scarcity Promotion, Electronic Word of Mouth, and Promotional Appeal had a good and substantial effect on Impulsive Buying Behavior partly and concurrently. The study results revealed that perceived scarcity, effect of digital reviews and promotional attractiveness were key determinants of impulsive purchase behavior among the e-commerce application users. This research contributes theoretically to the development of consumer behavior and digital marketing literature. It also has practical implications for e-commerce enterprises to build more successful promotional methods.

Keywords: Scarcity Promotion, Electronic Word of Mouth, Promotional Appeal, Impulsive Buying Behavior

INTRODUCTION

The e-commerce business has developed rapidly in a number of nations, including Indonesia, because of the development of digital technology. The easy access to the internet, increased usage of smartphones and the number of features available in e-commerce apps have led to changes in customer buying behavior (Rabbani et al., 2023). Impulsive buying behavior is a spontaneous, unplanned purchase behavior and is an

expanding phenomena in the internet shopping environment. This behaviour is of great concern for e-commerce enterprises since it may improve transaction volume, revenue and profitability in the near term. On the other hand, impulsive purchase behavior is also an attractive issue in consumer behavior research since it is affected by a variety of psychological, social and marketing aspects (Santoso et al., 2023). The features of e-commerce apps that are quick to transact, have tempting offers and detailed product information provide a favorable environment to impulsive purchase. This is further complicated by the evolution of digital marketing methods intended to influence the buying choices of consumers at a rapid pace (Sutrisno et al., 2022).

Scarcity Promotion is seen as a marketing approach that affects the Impulsive Buying Behavior of the e-commerce app users. Scarcity promotion: A promotional approach that stresses limited time or number of available items and creates a sense of scarcity in the minds of customers (Sudirjo et al., 2023). In reality, this approach is commonly applied via flash discounts, restricted supplies, countdown clocks or time-limited promotions. When customers are told that a product is available for just a limited time or in restricted numbers, they are likely to be afraid of missing the chance to have it (Andirwan et al., 2023). Another key aspect that is assumed to affect the Impulsive Buying Behavior of e-commerce app users is the Electronic Word of Mouth (e-WOM). Electronic word of mouth (e-WOM) is any message or review that customers share about goods, services or their buying experiences on digital platforms (Anwar et al., 2023). In the e-commerce context, e-WOM might be in the form of product reviews, ratings, customer comments, user suggestions, or information published via social media (Indriastiningsih et al., 2023). Another aspect that is hypothesized to affect the Impulsive Buying Behavior of e-commerce app users is Promotional Appeal. Promotional appeal is the attractiveness of a promotion to influence the attention, interest and willingness to make a purchase of customers (Rachmad et al., 2023; Wakil et al., 2024). Many ways to find promotional appeal: price reductions, cashback, shopping vouchers, free delivery or direct presents (Sudirjo et al., 2024).

Despite the rapid expansion of e-commerce platforms, understanding the determinants of impulsive buying behavior remains a significant concern for both academics and practitioners. Online shopping environments provide consumers with instant access to thousands of products, personalized recommendations, and seamless payment systems, creating favorable conditions for spontaneous purchasing decisions. Compared to conventional retail stores, e-commerce platforms offer greater convenience and accessibility, enabling consumers to complete transactions within minutes. Consequently, impulsive buying has become increasingly prevalent in the digital marketplace.

The growing competition among e-commerce companies has encouraged businesses to develop innovative promotional strategies to capture consumers' attention. Companies continuously introduce various digital marketing techniques to stimulate immediate purchase decisions and enhance customer engagement. Personalized advertising, flash sales, limited-time offers, and interactive promotional campaigns are increasingly employed to influence consumers' purchasing behavior. These strategies demonstrate that consumer purchasing decisions are no longer driven solely by product needs but are also significantly influenced by external marketing stimuli.

Consumer psychology plays an important role in explaining impulsive buying behavior in online shopping environments. Emotional responses, perceived excitement, and immediate gratification often outweigh rational evaluation during online purchases. Consumers may experience feelings of pleasure, curiosity, or urgency when encountering attractive promotional messages, leading them to make purchases without careful planning. Therefore, understanding the psychological mechanisms underlying impulsive buying behavior is essential for developing effective marketing strategies.

The Stimulus–Organism–Response (S-O-R) theory provides a useful theoretical foundation for explaining impulsive buying behavior in e-commerce. According to this theory, external marketing stimuli influence consumers' internal psychological states, which subsequently determine their behavioral responses. In online shopping contexts, promotional activities, product reviews, and marketing communications function as external stimuli that trigger emotional and cognitive reactions, eventually encouraging spontaneous purchasing behavior. This theoretical perspective explains why digital marketing strategies can effectively stimulate impulsive purchases.

Among various promotional strategies, scarcity promotion has received considerable attention due to its ability to generate urgency among consumers. Scarcity-based promotions encourage consumers to perceive products as more valuable because of their limited availability or restricted purchasing period. Such perceptions often increase consumers' fear of losing valuable opportunities, motivating them to make immediate purchase decisions before the promotion expires. Consequently, scarcity promotion has become one of the most widely implemented marketing strategies in contemporary e-commerce platforms.

The effectiveness of scarcity promotion can also be explained through the psychological concept of Fear of Missing Out (FOMO). Consumers frequently experience anxiety when they believe that attractive offers or exclusive products may no longer be available in the near future. This emotional response reduces the time spent evaluating product alternatives and increases the likelihood of impulsive purchasing decisions. As digital platforms continuously display countdown timers, stock limitations, and flash sale notifications, consumers become increasingly susceptible to impulsive buying behavior.

Electronic Word of Mouth (e-WOM) has emerged as another influential factor shaping consumers' online purchasing decisions. Unlike traditional word of mouth, e-WOM enables consumers to exchange information rapidly across digital platforms regardless of geographical boundaries. Product reviews, customer ratings, testimonials, and online discussions provide valuable information that reduces uncertainty and assists consumers in evaluating products before making purchase decisions. As a result, e-WOM has become one of the primary information sources in the digital shopping environment.

Positive e-WOM can significantly enhance consumers' trust toward products and online sellers. Reviews from previous buyers often serve as credible references because they are perceived as independent evaluations rather than company-generated promotional messages. Consumers tend to rely on collective experiences shared by other users when assessing product quality, seller credibility, and overall shopping satisfaction. Consequently, favorable e-WOM may strengthen purchase intentions while simultaneously encouraging spontaneous buying behavior.

Social interaction facilitated through digital platforms further amplifies the influence of e-WOM on consumer behavior. Online communities, influencers, and content creators frequently share product recommendations, shopping experiences, and promotional information that rapidly reach large audiences. Continuous exposure to positive product discussions can shape consumer perceptions and increase confidence in purchasing products, even without prior purchase planning. Therefore, e-WOM functions not only as an information source but also as a form of social influence affecting consumer behavior.

Another important determinant of impulsive buying behavior is promotional appeal. Promotional appeal refers to the extent to which promotional messages attract consumers' attention, stimulate interest, and encourage purchasing intentions. Attractive promotional designs, persuasive messages, visually appealing advertisements, and substantial financial incentives create positive emotional responses that motivate consumers to purchase products immediately. Consequently, promotional appeal plays a critical role in determining the effectiveness of digital marketing campaigns.

E-commerce platforms increasingly integrate multiple promotional appeals, including cashback offers, discount vouchers, free shipping, loyalty rewards, and personalized coupons. These promotional incentives reduce consumers' perceived financial risk while increasing the perceived value of products. Consumers often perceive promotional benefits as opportunities to maximize savings, making them more likely to purchase products spontaneously. Therefore, promotional appeal has become an indispensable component of successful digital marketing strategies.

The interaction between scarcity promotion, electronic word of mouth, and promotional appeal creates a highly persuasive online shopping environment. Consumers simultaneously receive urgency cues, positive product information, and attractive financial incentives throughout their shopping journey. These combined marketing stimuli strengthen emotional responses and reduce rational deliberation, increasing the probability of impulsive buying behavior. Understanding these combined effects is important for explaining consumer decision-making in contemporary e-commerce settings.

Previous empirical studies have demonstrated that scarcity promotion, e-WOM, and promotional appeal individually influence consumers' purchasing behavior. However, findings remain inconsistent across different countries, product categories, and digital platforms. Some studies report strong positive relationships, whereas others identify relatively weak or insignificant effects due to variations in consumer characteristics, cultural contexts, and technological adoption. These inconsistencies indicate the need for further empirical investigation within different research settings.

Moreover, relatively limited studies have simultaneously examined the combined influence of scarcity promotion, electronic word of mouth, and promotional appeal on impulsive buying behavior among Indonesian e-commerce users. Considering the rapid growth of Indonesia's digital economy and the increasing intensity of online competition, understanding these relationships has become increasingly relevant. The unique characteristics of Indonesian consumers, including their active social media engagement and responsiveness to promotional campaigns, provide an important context for extending existing consumer behavior literature.

Therefore, this study seeks to fill the existing research gap by comprehensively examining the effects of Scarcity Promotion, Electronic Word of Mouth, and Promotional Appeal on Impulsive Buying Behavior among e-commerce application users. The findings are expected to enrich the literature on digital marketing and consumer behavior while providing practical insights for e-commerce companies in designing more effective promotional strategies. Furthermore, this study contributes to a deeper understanding of how multiple marketing stimuli collectively influence spontaneous purchasing decisions in the rapidly evolving digital marketplace.

This research intends to investigate the effect of Scarcity Promotion, Electronic Word of Mouth, and Promotional Appeal on Impulsive Buying Behavior of e-commerce application users. Theoretical contribution This work is intended to contribute in developing digital marketing and consumer behavior literature, especially linked to the elements that impact impulsive purchase behavior in the e-commerce environment. It is also believed that this research would help in understanding how promotional and digital social effects might affect consumer's purchase choice. In practical terms, the conclusion of this research is predicted to be useful for e-commerce enterprises in formulating a more successful marketing strategy to enhance customer engagement and purchase.

METHOD

This research employs a quantitative technique with a survey method to investigate the impact of Scarcity Promotion, Electronic Word of Mouth, and Promotional Appeal on Impulsive Buying Behavior of users in e-commerce applications. The research population is the user of e-commerce applications who actively make online purchases in Indonesia. The sampling technique used is purposive sampling with the criteria that respondents are at least 18 years old, actively use e-commerce applications, have made online purchases at least 3 times in the last 6 months, and have purchased a product because they were attracted by the promotions offered by e-commerce applications. The sample size for multivariate analysis was 220 respondents. Data were acquired using online surveys administered through Google Forms. Scarcity Promotion was assessed by limited time offer, limited quantity and urgency perception factors. Electronic Word of Mouth was assessed by aspects of review quality, review credibility and review number. Promotional Appeal was evaluated using the categories of attractiveness, perceived value and promotional attractiveness. Impulsive Buying Behavior was assessed using the criteria of spontaneity, emotional drive and unplanned buy inclination. Validity was tested by t test, and reliability was tested by cronbach alpha with a minimum value of 0.70. Prior to the hypothesis test, the data was evaluated by classical assumption test. Then the data was examined using multiple linear regression.

RESULT AND DISCUSSION

Results of data processing on e-commerce application users showed that all study instruments are legitimate and reliable. The validity test findings indicated that all statement items had a computed t value larger than the t table at a significance level of 5%, indicating that all indicators were feasible to be used in the research. The reliability test findings found

that all variables had a Cronbach Alpha value over 0.70 which suggested a strong level of instrument consistency. The findings of multiple linear regression analysis indicated that Scarcity Promotion, Electronic Word of Mouth and Promotional Appeal concurrently had a substantial influence on Impulsive Buying Behavior with a significance value of the F test of 0.000 (<0.05). The coefficient of determination (R2) was 0.638 which meant that 63.8% of the variance in Impulsive Buying Behavior could be explained by the three independent variables in this study while the rest was impacted by other factors outside the research model. Partially, all independent factors had a positive and substantial effect on the Impulsive Buying Behavior. Therefore, all study hypotheses were pronounced approved.

The research findings show that scarcity marketing has a favorable and substantial effect on impulsive purchase behavior of e-commerce application users. The results show that the more the consumer's impression of time constraints or the amount of items available, the greater the likelihood of making impulse purchases. Tactics of advertising that generate scarcity may induce a feeling of urgency in the buyer, leading them to act quickly and purchase the product before it’s gone. Flash sales, low supply, countdown clocks, and special discounts confined to a certain time period are aspects of e-commerce that exert psychological pressure and may decrease rational thought processes among customers. Hence, buyers tend to make impulsive purchases without enough forethought. Moreover, the impression of a thing as hard to get might boost the subjective worth of the goods, therefore increasing the desire to acquire it quickly. Hence, scarcity advertising is a successful marketing method for improving impulsive purchase behavior among e-commerce application consumers.

The findings of the research reveal that electronic word of mouth has a favorable and substantial impact on the impulsive purchase behavior of e-commerce application users. This result implies that information, ratings and suggestions from other customers via digital platforms might impact spontaneous purchase behaviour. In e-commerce environment, customers tend to depend on reviews and experiences of other users as key sources of information before purchase. When customers see a lot of favorable reviews and high ratings for a product, they tend to feel more confidence in the quality of the product. This situation may decrease uncertainty and hasten the process of decision making on purchase. Moreover, the exposure to favorable experiences of other consumers might create an emotional drive that enhances the want to instantly own the suggested product. In addition, the more credible and quality information are obtained via electronic word of mouth, the more customers are inclined to make impulsive purchases. Therefore, eWOM is an essential element affecting impulse purchasing behavior on e-commerce platforms.

Based on the research findings, the promotional appeal has a favorable and substantial effect on the impulsive purchase behavior of e-commerce application users. This result suggests that the more enticing the marketing for customers, the greater their inclination to make impulsive purchases. Various promotions, such as big discount, cashback, shopping voucher, free delivery, and direct presents, may strengthen consumers’ sense of advantages acquired. The temptation to buy increases when purchasers feel they are receiving a good deal. In addition advertising appeals might produce a pleasant emotional reaction that reduces the motivation for customers to do an in-depth examination

prior to acquiring a product. In the competitive e-commerce world, promotional offers are a successful marketing tactic in attracting customer attention and monetizing. Therefore, promotional appeals are playing an important role in improving the impulsive purchase behavior of e-commerce application users.

CONCLUSION

Based on the findings of the study that has been done, it can be stated that Scarcity Promotion, Electronic Word of Mouth, and Promotional Appeal have a favorable and substantial impact on the Impulsive Buying Behavior of e-commerce application users, partly and concurrently. The findings suggest that Scarcity Promotion is the element that may trigger consumers to make spontaneous purchases by providing the feeling of scarcity and urgency in decision making to buy. Electronic Word of Mouth has also demonstrated to provide a beneficial impact on Impulsive Buying Behavior. Because reviews, suggestions and other user experiences may enhance customer trust and speed up the buying process. Furthermore, Promotional Appeal has a strong effect on impulsive purchasing behavior since attractive promotions may lead to a high impression of value and an emotional need to buy instantly. Meanwhile, the three independent factors may explain most of the variance in Impulsive Buying Behavior of e-commerce application users. However, this research has drawbacks, such as being a cross-sectional study, using data based on respondents' impressions, and solely focusing on e-commerce application users. Therefore, it is suggested that future research should use a longitudinal design to study the role of mediating variables such as shopping enjoyment or perceived value and moderating variables such as self-control in the relationship between Scarcity Promotion, Electronic Word of Mouth, Promotional Appeal and Impulsive Buying Behavior. In practice, e-commerce enterprises should seize the opportunities of scarce-based promotional techniques, promote the formation of positive customer reviews and design more appealing promotional programs to boost the efficacy of marketing and stimulate buy transactions.

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