
Impact of Flash Sale on Impulse Buying on E-Commerce Platforms of Gen Z Consumers in Vietnam

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ABSTRACT: The study aims to examine the impact of Flash Sale programs on impulse buying behavior on E-commerce platforms of Gen Z consumers across the nation. The research was conducted with a sample of 453 Gen Z consumers who have made purchases on E-commerce platforms. SEM model was used to analyze collected data. The results indicate that Attitude towards Flash Sale programs, Arousal, and Pleasure all have positive effects on Impulse Buying. Perishability and Limited quantity scarcity positively influence Attitude towards Flash Sale. Limited time scarcity positively affects Arousal. Information, Visuality, Entertainment, and Economic Benefits positively influence both Arousal and Pleasure. The findings of the study can assist E-commerce platforms in developing Flash Sale programs to increase consumer impulse buying behavior, thereby significantly contributing to sales revenue.

KEYWORDS: Impulse buying, Flash Sale, E-commerce, Gen Z, Vietnam

I. INTRODUCTION

The world has shaped a "new normal" after a prolonged period of social distancing, simultaneously altering the shopping habits of many, especially the younger generation - Gen Z. People are gradually shifting towards transactions on e-commerce platforms. According to data released by WeAreSocial, the global internet user base has increased by 100 million, reaching 5.4 billion people, equivalent to 67% of the world's population. According to Wearesocial statistics, as of January 2023, Vietnam had 77.93 million internet users, accounting for 79.1% of the population, and these figures continue to trend upward over time. Additionally, e-commerce in Vietnam has consistently recorded remarkable growth rates of 16-30% per year. It is predicted that the scale will reach a market scale of USD 20.5 billion in 2023.

This demands Vietnamese businesses to have appropriate, distinctive policies and strategies to attract potential customers. One of the strategies universally adopted by e-commerce platforms is the flash sale program. Therefore, studying the impact of flash sale programs on Gen Z's impulse buying on nationwide e-commerce platforms is essential to propose solutions that foster economic development and assist businesses in devising appropriate marketing strategies to engage Gen Z and stimulate their daily shopping behaviors.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. Flash Sale

Flash sales offer products at lower prices than usual for a limited time and quantity (Liu et al., 2021; Zhang et al., 2018). In 2019, flash sales became the platform with the highest transaction volume in global online shopping (Statista, 2020). The increasing trend of online shopping globally has the potential to boost revenue from this activity to \$5.4 trillion by 2022 (Statista, 2021). Selling through flash sales benefits various parties, including buyers, sellers, and the online marketplace (Agrawal & Sareen, 2016; Eisenbeiss et al., 2015). Flash sales can also be used for promotional purposes and to increase product sales by attracting buyer attention (Zhang et al., 2018). Additionally, they benefit the online marketplace by increasing both visitor traffic and revenue (Agrawal & Sareen, 2016; Sujata & Menachem, 2017).

B. Attitude

In online shopping, attitude is one of the psychological factors that strongly influence consumer behavior and purchasing decisions. According to Schiffman & Wisenblit (2015), customer attitude is defined as the behavior of consumers when seeking, purchasing, using, evaluating, and spending on items they believe will meet their needs. Hasan (2010) posits that attitude theory is a psychological tendency expressed through the optimistic or pessimistic evaluation of a specific object, event, or stimulus, rooted in

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the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980) and the Theory of Planned Behavior (TPB) (Ajzen, 1985). Individuals' attitudes are largely influenced by both external environmental factors and internal personal factors. This shapes customers' actual shopping intentions toward a particular product or service. Research has found that customer attitudes toward using or shopping at an online store (Lu & Lin, 2002; Suh & Han, 2003) depend on their trust in online platforms or online shopping experiences. When a consumer has a positive attitude, their likelihood of shopping online increases.

C. Arousal

Arousal is defined as a state starting from a low emotional state to a high point in effort or strong stimulation (Duffy, 1962). One of the primary reactions consumers have when external factors influence their behavior is arousal (Zhang et al., 2014). External arousal increases the level of excitement. This excitement will decrease over time. Even when the type of stimulation is removed, the excitement generated by the arousal continues (Cantor et al., 1974).

As a fundamental component of emotion, arousal has been widely studied. Research on online consumer behavior indicates that arousal is evident in online complaints (Herhausen et al., 2023) and consumer evaluations (Yin et al., 2017). In service marketing, arousal has been studied as a response to environmental factors and a precursor to customer attitudes and behaviors in a service environment (De Nisco & Warnaby, 2014) and online environments (Ha & Lennon, 2010).

D. Pleasure

Pleasure is defined as the description of the state of individuals feeling happy, content, and fulfilled (Donovan & Rossiter, 1982). Alternatively, Mehrabian and Russell (1974) define joy as the level of happiness, comfort, and enthusiasm, while arousal is the level of stimulation, excitement, and alertness. Customer pleasure is the focal point of all marketing activities, as evidenced in numerous previous research works, with diverse perspectives or viewpoints. Alternatively, Hansemark and Albinsson (2004) define customer pleasure as the overall attitude of customers towards a service provider, or an emotional response to the difference between what customers predict and what they receive, in terms of meeting certain needs, goals, or desires. Or as 'the customer's perception of the value obtained from a transaction or relationship, where value equates to perceived service quality related to price and costs attracting customers' (Jahanshahi et al., 2011).

E. Impulse buying

Vannisa and colleagues (2020) demonstrate that the limited time frame and restricted product quantity during flash sales promotions can impact impulse buying behavior. Impulse buying refers to purchasing behavior that occurs without prior planning or intention and is executed abruptly or spontaneously (Verhagen & Van Dolen, 2011). Technology serves as a facilitating factor for impulse buying due to the convenience of applications accessible anytime, anywhere (Akram et al., 2018). Various stimuli perceived by individuals from multiple sources can influence impulse buying behavior. Although impulse buying is believed to be more influenced by affective than cognitive states (Cakanlar & Nguyen, 2019; Verhagen & Van Dolen, 2011), cognitive states can still play a role in affecting impulse buying (Parboteeah et al., 2009; Sohn & Lee, 2017). Several cognitive and affective states have been used to explain impulse buying, including cognitive states such as perceived risk, perceived informativeness, perceived ease of use, and perceived trust (Chan et al., 2017; Habib & Qayyum, 2018), and affective states such as feeling happy, aroused, and regretful (Sohn & Lee, 2017).

F. Research model and Hypothesis

Perishability

Billieux and colleagues (2010) defined perishability as a sense of urgency, wherein an individual feels compelled or immediately driven to do something. Flash Sale occurs in an instant, with limited-time special discounts offered, thereby eliciting a sense of urgency that leads consumers to make impulsive purchases (Martaleni et al., 2022). Perishability creates time pressure, evoking emotions such as anxiety, fear of missing out, or excitement to prompt consumers to react quickly and impulsively to marketing stimuli, rather than relying on their rational judgment (Li et al., 2021). Perishability enhances arousal during shopping, creating a sense of urgency due to the time and product quantity constraints inherent in Flash Sale. Therefore, the hypotheses are developed as follows:

H1: Perishability positively influences attitudes toward Flash Sale.

Limited Quantity Scarcity

Limited quantity scarcity is defined as the presence of a limited number of goods available for sale within a specific timeframe (Fathia & Vania, 2023). With each purchase decision made, the remaining quantity of available goods decreases (Aggarwal et al., 2011; Wu et al., 2021), thereby necessitating customers to compete with each other to secure purchase

In Flash Sale, the availability of goods is often restricted (Vannisa et al., 2020; Liu et al., 2021; Zhang et al., 2018). Promotions created by limited quantity scarcity can induce fierce competition in shopping (Song et al., 2021). Additionally, Cialdini (2008) suggests that customers not only desire goods when they are limited in quantity but also feel a heightened desire to purchase when they must compete for them. Such situations elicit excitement and a desire to compete for purchases among customers. Therefore, the hypotheses are developed as follows:

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H2a: Limited quantity scarcity positively influences attitudes towards Flash Sale.

H2b: Limited quantity scarcity positively influences arousal.

Limited Time Scarcity

Limited time scarcity is defined as providing goods within a predetermined period, and once the deadline expires, those goods will no longer be available for purchase (Fathia & Vania, 2023; Lee et al., 2015). The limiting factor is the shopping time, or in other words, imposing a deadline for purchasing goods (Jang et al., 2015)

Flash Sale programs typically allow customers to shop within a limited timeframe (Vannisa et al., 2020; Liu et al., 2021; Zhang et al., 2018). Time pressure can be demonstrated through the deadline for purchasing, as the deadline can stimulate desire and prompt quick decisions, especially when the deadline nears (Moore, 2004). Furthermore, purchasing under time constraints can make customers feel happy, as they perceive it as a good deal (Guo et al., 2017). Customers feel stimulated to make quick purchases because of the fear of missing out on the opportunity to buy the item (Wu et al., 2021). Therefore, the hypotheses are developed as follows:

H3a: Limited time scarcity positively influences attitudes towards Flash Sale.

H3b: Limited time scarcity positively influences arousal.

Information

The abundance, accuracy, and completeness of product information on online shopping platforms are identified as important factors influencing consumer shopping behavior (Wu & Chen, 2016). Huang (2003) pointed out that website information significantly influences consumers' emotional states in the online environment. Loureiro and Roschk (2014) also found that information displayed on online shopping websites significantly affects consumers' excitement and satisfaction. Sohn (2017), Huang and Zhou (2018) emphasized the importance of product information on online shopping platforms. Displayed information is identified as a crucial factor in attracting consumers' attention and seeking additional information about products. Chen (2018) also argues that product information plays an important role in persuading consumers to use online shopping platforms. Therefore, the hypothesis is developed as follows:

H4a: Information positively influences arousal.

H4b: Information positively influences pleasure.

Visuality

Visuality refers to the extent to which consumers are attracted by the content displayed on online shopping platforms (Liu et al., 2019). Color, imagery, text, layout, and video are examples of visual elements that significantly influence the attractiveness and aesthetics of the platform (Van Der Heijden et al., 2003). These factors contribute to an appealing interface on online shopping platforms and are manifested in Flash Sale programs to attract customers to view promotional events

Bloch (1995) suggests that platforms or products with pleasing forms tend to create a sense of convenience in purchasing compared to less appealing items. Based on research and real-world observations, it can be concluded that consumers are interested in the visual appeal of an online shopping platform with a positive attitude. The effective combination of visual elements can stimulate consumer interest and provide consumers with shopping value (Liu et al., 2019). Therefore, the hypotheses are developed as follows:

H5a: Visuality positively influences arousal

H5b: Visuality positively influences pleasure

Entertainment

Liu and Lu (2017) assert that different efforts undertaken by websites or applications aiming to provide entertainment can stimulate consumers to make purchases. This is because the sense of entertainment arouses their enthusiasm, making consumers more easily influenced and stimulated to make purchases (Hsieh et al., 2014; Liu et al., 2019). Richard (2005) also stated that individuals may feel excited when a website entertains them, hence they become more enthusiastic and will explore the website further. Someone accessing a website or application for entertainment purposes is more likely to make purchases due to the excitement generated by the entertainment sensation (Hsieh et al., 2014).

Online shopping can be entertaining for individuals (Moon et al., 2017), so they would be pleased if the platform could provide them with entertainment (Liu & Lu, 2017). Those paying more attention to the entertainment aspect tend to shop on entertainment platforms to satisfy and indulge themselves (Ahmad et al., 2019). Liu and colleagues (2019) also stated that the joy derived from a website or application can be measured by the level of interest and enjoyment of the shopping experience. Therefore, the hypotheses are developed as follows:

H6a: Entertainment positively influences arousal.

H6b: Entertainment positively influences pleasure.

Economic Benefits

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Zhou and Gu (2015) stated that when individuals encounter promotions or discounts, they tend to be more influenced by emotional states, one of which is excitement. Individuals also feel enthusiastic about various promotional programs that offer economic benefits to them (Liu et al., 2019). Beurer-Zuellig and Seiler (2017) also argue that people feel stimulated to make purchases from flash sales because it allows them to buy products at lower prices. When individuals perceive that they can purchase items at a lower-than-expected price, it motivates them to make purchases (Yi & Jai, 2020; Zhao & Wan, 2017).

Bhattacharya and Anand (2019) claim that a sense of satisfaction is expressed in an individual when a product is offered at an attractive price. People perceive joy and satisfaction with economically beneficial promotions which reduces the amount of money needed to spend, thus enabling buyers to save (Chen & Yao, 2018). Those inclined to seek inexpensive products feel happy if they succeed in obtaining desired items because it brings profit (Akram et al., 2018). Therefore, the hypotheses are developed as follows:

H7a: Economic benefits positively influence arousal.

H7b: Economic benefits positively influence pleasure.

Arousal and Pleasure

In consumer behavior, satisfaction and arousal are the primary responses of consumers to stimuli from the external environment (Zhang et al., 2014). Satisfaction indicates the degree to which an individual feels happy, joyful, and excited in response to external stimuli, while arousal reflects the level of interest that consumers experience in the context of external stimuli (Mehrabian & Russell, 1974).

In Flash Sale programs, customer arousal in purchasing comes from pricing and product strategies that meet consumer needs. Rafaeli and Reville (2006) have shown that a high level of excitement positively affects customer satisfaction. Because excitement and satisfaction are closely related, when consumers' excitement is higher, their satisfaction with the consumer experience becomes stronger. Therefore, the hypothesis is developed as follows:

H8: Arousal positively influences pleasure.

Attitude towards Flash Sale and Impulse Buying

In Flash Sale programs, encouraging customers to make purchase decisions is a spontaneous, enticing buying behavior that satisfies their needs, thereby making the decision-making process impulsive and hindering consumers' deliberate consideration of intentional information and alternative choices (Bayley & Nancarrow, 1998). By providing pricing and product strategies suitable for consumers' purchase intentions and usage, suppliers create a positive attitude towards online shopping among customers, thereby facilitating the decision-making and purchasing process to occur rapidly and suddenly. Therefore, the hypothesis is developed as follows:

H9: Attitude towards Flash Sale positively influences impulse buying.

Arousal and Impulse Buying

Online impulse buying is triggered by the Internet environment, leading to strong cognitive and emotional responses, thereby resulting in sudden, immediate, and unplanned buying behavior (Parboteeah et al., 2009). Most mobile E-commerce platforms feature Flash Sale programs. These programs can influence consumers through the unique characteristics of the platform, creating shopping stimulation, and thereby affecting consumers' impulse buying. Individuals may make purchases without any prior intention due to pre-existing stimulation or stimulation during shopping when customers happen to see the product (Chen et al., 2019). This occurs because individuals cannot restrain and control themselves from making purchases when feeling stimulated, so they shop impulsively without prior planning (Ju & Ahn, 2016; Verplanken & Sato, 2011). Therefore, the hypothesis is developed as follows:

H10: Arousal positively influences impulse buying.

Pleasure and Impulse Buying

Parboteeah et al. (2009) suggest that consumers undergo emotional cognitive responses before forming intentions and engaging in impulse buying behavior. This cognitive response is strongly manifested through emotions, specifically satisfaction, excitement, and pleasure. Emotions strongly influence customer satisfaction (Song & Qu, 2017), and they are a crucial precursor to online impulse buying (Chung et al., 2017)

When stimulated by Flash Sale programs on online shopping platforms, consumers are prompted to generate excitement and satisfaction, thereby influencing their impulse buying. Customer satisfaction during participation in flash sales will affect their spontaneous shopping behavior (Guo et al., 2017; Verhagen & Van Dolen, 2011). Therefore, the hypothesis is developed as follows:

H11: Pleasure positively influences impulse buying.

From the above hypothesis, the authors proposed a research model:

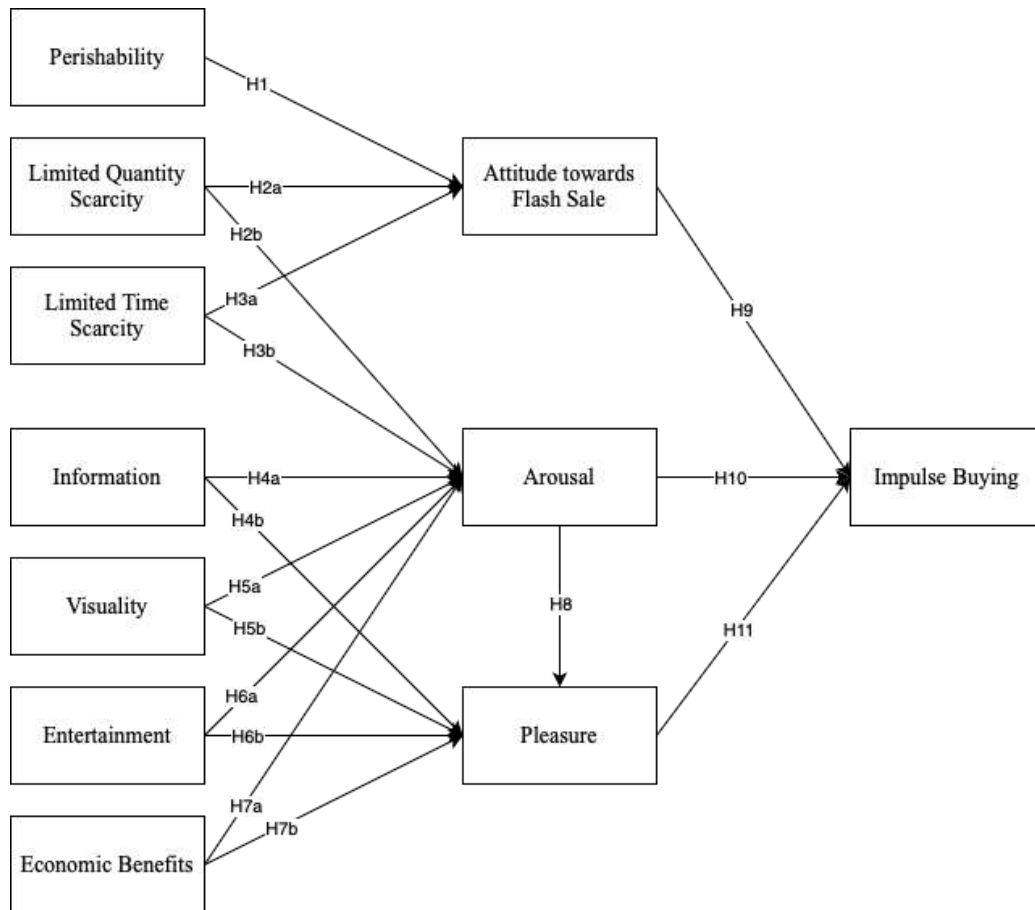


Figure 1: Proposed research model.

III. RESEARCH METHOD

To conduct the study, the authors employed both qualitative and quantitative research methods. The qualitative research method involved synthesizing and analyzing data from previously published reference materials including research studies, articles, and documents from reputable sources. From these, the authors developed research models and scales. The quantitative research method was carried out through an online survey from February 2024 to April 2024. In total, 485 responses were collected, out of which 453 were deemed valid. SPSS and AMOS software were utilized to analyze the collected data. The authors conducted analyses including Cronbach’s Alpha, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modeling (SEM) to examine the relationship between variables within the research model.

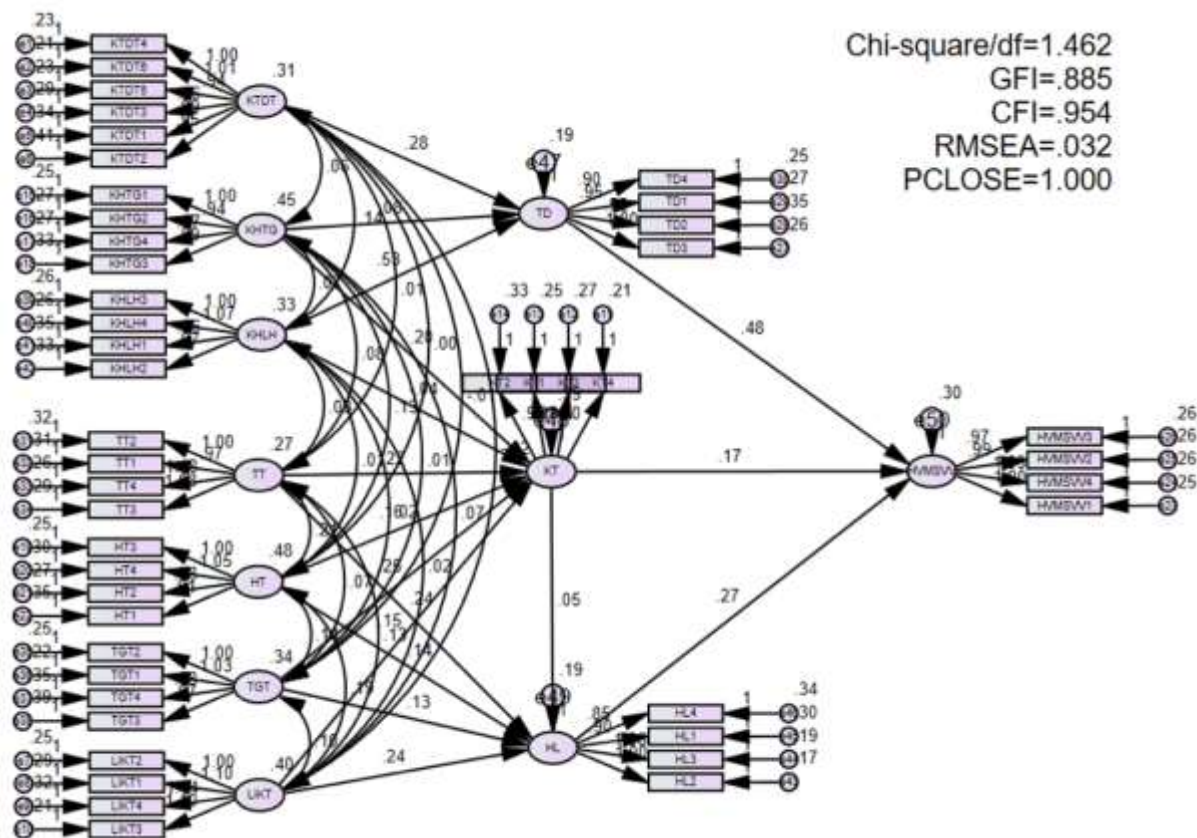


Figure 2: The SEM model is used to analyze the relationships between variables based on the research model.

IV. DATA ANALYSIS

The results indicate that Cronbach’s Alpha coefficients are all > 0.6, and the total intercorrelation coefficients of all variables are >0.3, indicating high reliability of the scale.

Next, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.818 > 0.5, and the significance level of Bartlett’s Test is 0.000 < 0.05, suggesting significant correlations among the variables. The total variance extracted reveals that 11 factors out of 46 observed variables can account for 67.887% of the data variation, and all factors are statistically significant with factor loadings > 0.5, with no problematic variables.

Subsequently, Confirmatory Factor Analysis (CFA) was employed to assess the correlations between factors. The results indicate that the model fits well, as evidenced by the following indices: Comparative Fit Index (CFI) = 0.964 > 0.9, Goodness of Fit Index (GFI) = 0.892 > 0.8, and Probability of Close Fit (PCLOSE) = 1.000 > 0.05. Additionally, the chi-square/df ratio is 1.373 < 3, and the Root Mean Square Error of Approximation (RMSEA) is 0.029 < 0.06. These results from data analysis demonstrate that the proposed model is both reasonable and highly valid.

Following that, running the SEM model, all relationships are statistically significant (p ≤ 0.05), with standardized coefficients of H1, H2a, H3b, H4a, H4b, H5a, H5b, H6a, H6b, H7a, H7b, H9, H10, H11 being 0.265, 0.523, 0.177, 0.155, 0.238, 0.152, 0.188, 0.198, 0.147, 0.127, 0.284, 0.436, 0.194, 0.227 respectively.

V. CONCLUSIONS AND RESEARCH CONTRIBUTION

Through the analysis of survey data from nationwide customers of Gen Z who have made purchases through Flash Sale programs on E-commerce platforms, the research team has presented several findings. The results indicate that the factors of "perishability" and "limited quantity scarcity" influence the "attitude towards Flash Sale." The research findings also demonstrate that "limited time scarcity", "information," "visuality," "entertainment" and "economic benefits" impact "arousal." Additionally, "information," "visuality," "entertainment" and "economic benefits" also affect "pleasure." The study also identifies "attitude towards Flash Sale", "arousal" and "pleasure" as important factors influencing "impulse buying." Based on the research findings, specific recommendations have been proposed to contribute to the development and direction of E-commerce platforms in Vietnam in the future. Firstly, it is necessary to create scarcity in terms of product quantity and purchase time. Secondly, there is a need to establish a secure and trustworthy shopping environment. Thirdly, it is essential to design interfaces with attractive, creative, and unique visual effects. Fourthly, enhance user experience through activities that stimulate emotions or trust. Fifthly, build a customer support system that is prompt and dedicated. Lastly, there is a need to increase activities related to stimulating customers' economic interests.

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In summary, these recommendations aim to assist current E-commerce platforms in improving Flash Sale programs in various aspects to promote customers' impulsive buying behavior and increase sales volume.

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