



# The Role of Impulse Buying in Online Stores: An Empirical Study of Indonesian Consumers

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**Abstract.** This study examines the influence of sales promotions on impulse buying behavior, mediated by website quality, in Indonesia's competitive online retail market, particularly focusing on Berrybenka's e-commerce platform. The research employs a quantitative descriptive verification approach, utilizing Structural Equation Modeling (SEM) through SmartPLS for data analysis. Data was collected from 400 respondents in Bandung, West Java. The theoretical framework is grounded in the Theory of Reasoned Action (TRA), investigating the relationships between e-commerce characteristics, sales promotions, and website quality in driving impulse purchases. Results demonstrate that sales promotions positively and significantly influence both website quality and impulse buying behavior. Similarly, website quality shows a significant impact on impulse buying. The findings indicate that sales promotion implementation is appropriate, while both website quality and impulse buying measurements fall into good categories. This research contributes to the existing literature by uniquely combining three rarely integrated factors: sales promotion, website quality, and impulse buying in a single study. The findings extend TRA applications in e-commerce contexts and provide practical insights for online retailers in Indonesia's rapidly growing digital marketplace, particularly relevant during and after the COVID-19 pandemic when internet penetration and online shopping have increased significantly.

**Keywords:** Impulse Buying, Online Marketing, Sales Promotion, Website Quality.

## 1. INTRODUCTION

Marketing is currently designing a campaign through the media sales promotion, which spreads many cues that develop an impulsive buying among consumers to make unplanned purchases. In every retail setting, 59% of all purchases are made on impulse (G. & Asokan-Ajitha, 2021; Lin et al., 2019). The attribute of impulsivity includes a strong emotive component as well as a loss of cognitive control over behavior. This will not be controlled by the drive that coincides with a lack of attention to objective behavior in consumers (Amos et al., 2014; Correia et al., 2023). Furthermore, consumer characteristics inclusive of age, gender, income degree, education degree, career, marital fame, and ethnicity play an important function in impulsive buying (Chiu et al., 2014; G. & Asokan-Ajitha, 2021; Hellemans et al., 2023).

Impulsive buying is widespread in the market. A recent study of consumer shopping habits conducted in Chicago by the Market Research Association found that young people are more likely to buy impulsively than older people (De Veirman et al., 2017; Zhou et al., 2023). Even though marketing researchers have been investigating impulsive buying for nearly a long time, most have focused on, in basic terms, impulsive buying in place of different sorts. The massive literature within the place of natural impulsive buying comprises several streams of research. First, purchaser behavior researchers have tested the nature of man or woman impulses and have observed that impulsive buying is the tendency of clients to shop spontaneously, non-reflectively, at once, and kinetically (Joshi & Rahman, 2019; T. N. Nguyen et al., 2017; Norsiah et al., 2020). The second focuses on impulse products, and previous research has reported that low-priced products often require less purchase and product knowledge for impulsive buying (Moore and Homer, 2000). In addition, Zheng et al (2019) suggest that impulsive products can also include products with high involvement and high prices, such as jewelry, cars, and works of art.

Furthermore, many shop attributes consisting of quality of salesperson interactions, attractiveness such as appearance, promotional advantage, and product attributes together with nice, packaging beauty, and charge advantages trigger unplanned purchases. For the most part, impulsive buying offers satisfaction based on the emotional aspect (Palazon and Delgado-Ballester, 2013; Jang et al., 2019; De Veirman et al., 2017), which is more hedonistic. The virtual retail format offers a rich experience through technological innovation to develop impulsivity: amazing views, attractive shopping procedures, personalized customer service, and more. There are several attractions in e-commerce, such as the main challenges in e-commerce which are closely related to consumer behavior in making purchases of goods or services. Impulsive buying is often made by providing a stimulus that triggers and encourages consumers to make purchases. Therefore, one of the factors that support consumer behavior in impulsive buying is promotion.

Promoting is the key to success for any business to grow more effectively and maintain market share with various tools such as sales promotion (Lee & Charles, 2021). These offers influence how consumers behave or think when shopping. Sales promotion is the process of persuading potential consumers to buy a brand or goods and encourage any business while providing consumers with better opportunities (Akram et al., 2018). Sales promotion is a short-term, activity-based technique used to achieve short-term goals, increasing product availability or stimulating purchases. It is hardly suitable for long-term customer loyalty-building methods. Provide added value and/or incentives for consumers. In this case, efforts are made to stimulate interest, trial, or

purchase of consumer products (Ansari & Gupta, 2021). Sales promotion activities are carried out to attract more customers or retain current customers (S.-L. Liao et al., 2009; Lin et al., 2019). Marketers use this sales promotion activity to brand themselves and keep customers loyal while earning short-term profits. In today's market, most marketers struggle to attract customers because of the fierce marketplace and employ strategies to attract new customers and prepare for long-term fulfillment. In this context, most marketers, retailers, or manufacturers use sales promotion as a weapon to attract more new customers, impulsive shopping, and in return, receive a high proportion of the market and long-term revenue.

Currently, the virtual retail format offers a rich experience through technological innovation to develop impulsive buying. There are incredible views, significant shopping procedures, personalized customer service, conveniences, and lucrative promotions. Are some of the attractions in e-commerce that exist today. Similarly, most customer behavior is the result of personality and situational effects by considering character variables that affect impulsive purchases. From previous and current literature reviews, it's far clear that there is no comprehensive version linking personality and situationally with impulsive buying. This paper attempts to pop out with a complete model to explain impulsive shopping, philosophically in line with Russell and Mehrabian (1976).

The extant literature does not address the use of impulsive stimulation cues to minimize gaps in e-commerce. In addition, it examines the role of hedonic and utilitarian motivations in instilling impulsive buying in consumers. There are also those from wealthy nations, where consumer behavior differs greatly from that of developing nations like Indonesia. Currently, Indonesia is the youngest society in the world. There are other motivators, including widespread internet use, the emergence of the middle class, and rising incomes that are beginning to fulfill consumer needs, and the existence of a new lifestyle that will change the nature and behavior of consumers in creating impulsive buying, among a rapidly growing population of young people and social status and support the growth of online retail and e-commerce. Consequently, a contextual examination of consumer behavior about Indonesia has usually contributed to researchers and students worldwide. Thus, this observation aims to reinforce the understanding base in consumer behavior; this is pushed through impulsive shopping for in dynamic advertising surroundings in a developing economy characterized by way of new customer segments and progressive advertising techniques.

Currently, the virtual market occupies an increasingly rapid retail growth and technical support that provides convenience for consumers and consumer behavior that has begun to shift with the covid-19 pandemic. The tremendous future lies inside the lack of studies into the utility of impulsiveness to positive outcomes prompting us to investigate the procedure through which impulsivity is associated with income advertising and website high-quality in e-commerce. The principal contribution of this observes to estimate the strength of several sales promotion drivers in online line buying.

## 2. LITERATURE REVIEW

### 2.1. Impulsive Buying

Impulsive purchases arise due to unplanned spending generated by situational marketing advertising and social requirements in an online environment (Akram et al., 2018; Zhang et al., 2023). Consumers are a rational group, and impulsive buying occurs due to the interplay among stimuli from the agency's marketing activities and the social environment. While receiving stimuli, perceptual and mental techniques arise in the consumer's mindset that frequently produce purchase intentions through rational processes. However, the concept of bounded rationality suggests that individual responses to stimuli may be unreasonable (Akram et al., 2018) due to restrictions on decision-making rationality caused by factors including individual reasoning capacity, information availability, and time (G. & Asokan-Ajitha, 2021; Hellemans et al., 2023a, 2023b). It has been advocated for prompt behavior and deliberate inquiries and input that provides advice and different classification of impulsive buying.

Hellemans et al (2023a) impulse buying is related to emotional buying behavior. These emotions are concerned with solving limited or spontaneous purchasing problems. This was caused by encouragement such as discounts of up to 50%, bonus pack offers for several products, and other sales promotions that retail businesses have carried out. The indicator used to measure the impulse buying variable developed by G. & Asokan-Ajitha, (2021) consists of four indicators, namely:

- 1). Product purchases occur without warning and encourage customers to buy straight fast, frequently interpreted as a reaction to the picture that is shown at the point of sale.
- 2). Strength, Compulsion, and Intensity; There is a drive to act right away and put other things on hold.
- 3). Excitement and Stimulation; Feelings of being out of control accompany the sudden urge or want to purchase.
- 4). Indifference to the consequences; The need to purchase something might be so strong that it can be difficult to stop, therefore negative effects may go unnoticed.

Previous research has demonstrated that the causes of impulsive buying are the interactions between a variety of internal and external stimuli, which impair consumers' capacity for rational thought (G. & Asokan-Ajitha, 2021; R. Zheng et al., 2021; X. Zheng et al., 2019). The majority of external stimuli are tied to the market

and include elements like the retail environment and sales personnel (Mohan et al., 2013; Sharma et al., 2022; G.-W. Zheng et al., 2020). Low pricing, appealing promotional strategies, and appealing payment terms and conditions (Chin et al., 2018; Choi & Johnson, 2019). Likewise, internal stimuli, particularly patron centric elements, are associated with personality and psychological factors (Ahmad & Zhang, 2020; Chen & Liao, 2023; Joshi & Rahman, 2019), stages of entertainment, exhilaration, enthusiasm, and pleasure signify lifestyle related to materialism and sensation- searching for and leisure elements of buying (Ahmad & Zhang, 2020; Bandura, 1999; D. Yin et al., 2023). most of the reasons in the back of buying are rational (utilitarian) or emotional (hedonic) (Choi & Johnson, 2019; X. Zheng et al., 2019), and each makes contributions to perceived cost (Dalal & Aljarah, 2021). The hedonic shopping cause is associated with the feelings, comfort, joy, pleasure, journey, etc., which might be felt when purchasing, while the practical shopping reason represents the advantages acquired even as buying (Paul et al., 2016; Zhu et al., 2023). Hedonic motivations frequently take precedence over utilitarian considerations in impulsive purchase decisions (Fekete-Farkas, 2020; Guo et al., 2020). The surroundings and atmosphere of stores (Falk et al., 2016; Kang et al., 2020; H. Nguyen et al., 2019) stimulate sensory perceptions and broaden hedonic motivation by using lowering consumer rationality in buying decisions.

## 2.2. Sales Promotion

Akram et al (2018) explains that sales promotion is the key to maximizing income for retail corporations. The need for a dynamic income promotion model and its importance in one-of-a-kind sectors is highlighted with the aid of the quick-term effect of promotion and marketing at the sales of a brand to maximize income quantity. Jin et al (2022) economic conditions situations have brought about innovations within the retail enterprise, along with a different dynamic retail method primarily based on a flexible strategy, particularly at some stage in the Covid-19 pandemic led to digital sales. "The agreement impact curve evaluation and the linear time collection version do now not offer enough expressive capability, and the nonlinear promoting version extra appropriately follows the accurate income sample obtained in response to the income advertising being carried out (Kao & Du, 2020; S. Yin et al., 2023).

According to Akram et al (2018), Sales promotion is an action or strategy that gives customers, salespeople, or resellers an immediate incentive to buy a product. This enticement, which raises the price or provides an incentive for the goods, may come in the form of a coupon, a contest, or a refund (Lee & Charles, 2021). Sales promotion tools include samples, coupons, premiums, patronage rewards, discounts, bonus packs, rebates, points of purchase, and raffles (Lee & Charles, 2021; S. Liao et al., 2009; Liguio et al., 2023).

- 1). Price Discount: Discounts in the form of a percent or cents-off deal (discount in nominal form). Direct price cuts at the time of purchase, the offerings are visible on the product packaging or display.
- 2). Bonus Pack: By buying certain goods, consumers are entitled to a larger quantity of goods than average conditions.

## 2.3. Website Quality

Websites are a part of our daily lives and are used to exchange and convey information. The information conveyed comes in many types, languages, and forms. It combines text, images, sound, and video, which are meant to inform, persuade, sell, present a point of view or even change attitudes or beliefs (Taheri et al., 2024). Furthermore, website quality is part of quality related to customer satisfaction and also with the level of achievement of user expectations when connecting to a website (Akram et al., 2018; Kim & Niehm, 2009; Turkyilmaz et al., 2015). Specifically, WebQual is used to identify website quality dimensions, with a focus on consumer evaluation, business-to- consumer website quality. According to Kim & Niehm (2009) and Szabo & Webster (2021), quality is the totality of capabilities and characteristics of a service or product that relies upon its ability to fulfill stated or implied desires. Meanwhile, according to Kim & Niehm (2009) and Taheri et al (2024), Website quality is connected to online content and services, graphical elements, and technological requirements that users must go through while interacting with a website online. Taheri et al (2024) and Turkyilmaz et al (2015) explain that there are three main factors in WebQual 4.0, namely:

- 1). Usability: Usability can be measured through 5 indicators, namely, the ability to learn, efficiency, memorability, errors, and satisfaction.
- 2). Information: The ability of a website or system to provide the information desired by customers. In measuring Information Quality, several indicators are needed, namely accuracy in providing information, clarity, completeness of information, ease of use of information, quality of website navigation.
- 3). Interaction Service: Dimensions that significantly affect customer satisfaction. Service interaction can be measured through several factors, including reliability in the ease of use of the website and the security of user data.

## 2.4. Hypotheses Development

The objective of this study is to empirically examine the effects of favorable e-commerce characteristics on sales promotion and website quality on online users who make impulsive purchases. With the arrival of e- trade / digital marketing, which includes internet site elements, product services, promotional factors, and different

functions, which uses resources in clean choice-making, it appears as a critical exogenous element influencing client behavior. As postulated within the theory of reasoned action (Alganad et al., 2023; Paul et al., 2016).

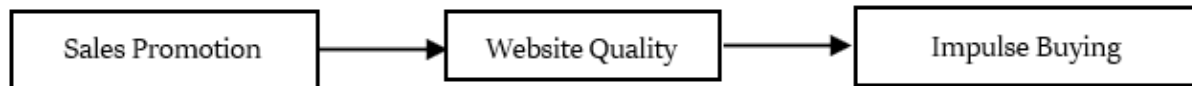


Figure 1: Framework.

*H<sub>1</sub>: Sales Prom.otion has a positive relationship with Website Quality.*

*H<sub>2</sub>: Website Quality has a positive relationship with Impulse Buying.*

*H<sub>3</sub>: Sales Promotion has a positive relationship with Impulse Buying.*

*H<sub>4</sub>: Website Quality mediates the relationship between Sales Promotion and Impulse Buying.*

### 3. RESEARCH METHODOLOGY

This study adapted items that were previously validated following recommendations from academics and practitioners to ensure contextual consistency. Literature review and discussion with experts help decide which models and measures to use. The operational definition of the variable follows the contextual aspect, and the selection of the appropriate action is made after examining the contextual relevance—indicators to measure statement items adapted from the literature. The specification of the measurement model requires a comprehensive understanding of the relationship between size and latent constructs to rule out possible model specification errors (Hair et al., 2017).

This research endorses the deductive approach and stresses creating hypotheses based on accepted ideas and devising a plan to test them (Henseler et al., 2014). The approach is implemented and carried out to collect data through online and offline independent questionnaires from members or respondents who meet the criteria in this study. Those who have carried out impulsive buying on online / e-commerce media related to sales promotion stimuli and website quality. This study adopts the 10-fold rule, particularly "10 times the largest wide variety of structural paths directed at a selected latent assemble inside the structural model" to meet the pattern size criteria following Hair et al. (2017). The population in this study are people in Indonesia who make online purchases of existing virtual retailers registered in Indonesia, whose number is not known with certainty. To determine the number of samples from an unknown population, this study uses G\*Power so that the number 384.16 is obtained for the minimum sample size, but the authors rounded it up to 400 respondents to reduce errors in filling out the questionnaire.

### 4. RESULT / FINDING

This study uses a version-based least squares structural equation modeling approach (PLS-SEM) to research data through SmartPLS version 3.2.8 as compared to covariance-based SEM. First, PLS-SEM is favored because our intention is prediction and concept improvement, which drives us to perceive the targeted constructs of impulsive buying and explain the most variance. Second, this study suggests sales promotion, website quality, and impulsive buying as reflective constructs. The existing literature has recommended that PLS-SEM be used to explain CB-SEM (Hair et al., 2017). Most of the PLS-SEMs are used for these reasons, in addition, In comparison to CB-SEM, PLS-SEM has the highest ability to evaluate the connection of all constructs taken together, even in small sample sizes, as it disregards normal distribution (Hair et al., 2017). Therefore, PLS-SEM appears to be the right approach for this study.

Table 1: Profile of Responden.

Attributes	Distribution	Frequency n=400	%
Gender	Male	124	31
	Female	276	69
Age	15 – 25 Years	196	49
	26 – 30 Years	112	28
	31 – 40 Years	76	19
	>40 Years	16	4
	Occupations	BUMN / BUMD employees	36
	Civil servants	20	5
	General employees	64	16
	Entrepreneur	52	13
	College student	164	41
	Student	56	14
	Others ,...	8	2
Level of income	<IDR. 5.000.000	212	53
	IDR. 5.000.001 – 10.000.000	104	26
	IDR.10.000.001 – Rp. 15.000.000	64	16
	>IDR. 15.000.000	20	5

The results of the analysis showed that sales promotion got 77.26% respondent response. Meanwhile, website

quality received responses from respondents of 73.06%. Then, impulse buying got responses from respondents of 78.20%. Measurement models and structural models are the two sorts of models that are created in structural equation modeling. The measurement model explains how much of each manifest (indicator) variable's variance may be accounted for by the hidden variable. Based on the first-order estimation method from Partial Least Square, the full model path diagram is obtained.

**Table 2:** Reliability and Validity.

Latent constructs	Factor Loading (>0,5)	Cronbach's Alpha (>0,6)	CR (>0,7)	AVE (>0,5)
Sales promotion	0.533 – 0.823	0.838	0.882	0.560
Website quality	0.691 – 0.850	0.902	0.921	0.595
Impulse buying	0.660 – 0.768	0.869	0.897	0.522

**Table 3:** Path Coefficient.

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistic ( O/STDEV )	P Values	Decision
Sales Promotion -> Impulse Buying	0.379	0.375	0.048	7.816	0.000	Supported
Sales Promotion -> Website Quality	0.769	0.768	0.026	29.999	0.000	Supported
Website Quality -> Impulse Buying	0.498	0.501	0.041	12.050	0.000	Supported
Sales Promotion -> Website Quality -> Impulse Buying	0.383	0.385	0.035	10.585	0.000	Supported

Through the coefficient of determination (R-square) contained in the table above, it can be seen that sales promotion has an effect of 0.591% on website quality. Then the sales promotion gave an effect of 0.682% on impulse buying.

## 5. CONCLUSION AND RECOMMENDATION

Based on the SEM analysis that has been carried out, it can be seen that based on the results of the hypothesis test of the two dimensions of the sales promotion variable, namely the price discount and bonus pack, analyzed using the PLS method, that the sales promotion variable has a positive and significant effect on impulse buying at Berrybenka with a value of to  $29,999 >$  the  $t\alpha$  value is 1.649. Then based on the SEM analysis that has been carried out, it can be seen based on the results of the hypothesis testing of the three dimensions of the website quality variable, namely usability, information, and service interaction which were analyzed using the PLS method, that the website quality variable has a positive and significant effect on impulse buying at Berrybenka with a value of to equal to  $12,050 >$  the  $t\alpha$  value of 1.649.

Based on the results of data analysis processing regarding the effect of sales promotion on impulse buying mediated by website quality, researchers can draw several conclusions, namely as follows: The effect of sales promotion on impulse buying on consumers who use and interact with virtual markets/e-commerce in Indonesia. Based on the outcomes of SEM analysis that was performed using the PLS technique, it can be seen that the results of the calculation show that the sales promotion has a value of  $7.816 >$  the  $t\alpha$  value of 1.649. Furthermore, the effect of sales promotion on website quality in the virtual market/e-commerce in Indonesia. Based on the results of SEM analysis that has been carried out using the PLS method, it can be seen that the results of the calculation show that sales promotion gets a value of  $29.999 >$  a  $t\alpha$  value of 1.649. The influence of website quality on impulse buying virtual market/e-commerce in Indonesia. Based on the results of SEM analysis that has been carried out using the PLS method, it can be seen that the results of the calculation show that the website quality gets a value of  $12.050 >$   $t\alpha$  value of 1.649. The effect of sales promotion on impulse buying mediated by website quality virtual market/e-commerce in Indonesia, PLS, shows that the calculation results show that the sales promotion get a value of  $10.585 >$   $t\alpha$  value of 1.649.

The results of the SEM analysis indicate that the sales promotion variable, comprising price discounts and bonus packs, has a positive and significant effect on impulse buying behavior at Berrybenka, with a t-value exceeding the critical threshold (Akram et al., 2017; Lamis et al., 2022; Zhao & Wen, 2010). Similarly, the analysis of the website quality variable, encompassing usability, information, and service interaction, reveals a positive and significant impact on impulse buying at Berrybenka (Musadik & Azmi, 2020; Riedl et al., 2020; Kyrdoda et al., 2018; Türkyılmaz et al., 2015). The findings suggest that sales promotion exerts a significant positive influence on impulse buying among Indonesian consumers engaging with virtual markets and e-commerce (Kempa et al., 2020; Rejikumar & Ajitha, 2020; Akram et al., 2017). Furthermore, sales promotion is shown to positively and significantly impact website quality in the virtual market/e-commerce sector in Indonesia (Abdullah, 2020).

Based on these insights, several recommendations are provided:

- E-commerce businesses should prioritize the implementation of effective sales promotion strategies, such as price discounts and bonus packs, to stimulate impulse buying behavior among their customers (Rejikumar

& Ajitha, 2020).

- b) E-commerce platforms should focus on enhancing website quality, particularly in terms of usability, information, and service interaction, as these factors significantly influence impulse buying behavior (Jiang & Cai, 2021).
- c) Collaboration between e-commerce businesses and website developers should be strengthened to ensure seamless integration of sales promotion strategies and website quality (Wells et al., 2011; Ariningsih et al., 2018; Jain et al., 2018; Wells et al., 2011).

Further research is recommended to explore additional factors that may influence impulse buying behavior in the Indonesian e-commerce context, such as social influence, personal characteristics, and psychological factors. These recommendations aim to provide valuable insights for e-commerce businesses in Indonesia to optimize their strategies and capitalize on the opportunities presented by the growing online shopping market.

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