
Applying the S-O-R Model to Understand Impulsive Buying Behavior Among Pakistani Online Shoppers

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Abstract

This study examines the factors that influence impulsive buying behavior (IBB) among online shoppers in Pakistan, guided by the Stimulus-Organism-Response (S-O-R) model. The key objective was to identify the factors that significantly affect IBB, with a focus on perceived trust (PT) as a mediating variable. A total of 350 questionnaires were distributed through snowball sampling, yielding 330 complete responses. The results show that innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events all positively influence IBB. Moreover, PT was found to mediate the relationship between these factors and IBB, strengthening their effects on impulsive buying decisions. The study suggests that online businesses in Pakistan should prioritize enhancing consumer trust and leverage innovative products, celebrity endorsements, and customer service to stimulate impulsive purchases. These insights offer valuable guidance for businesses aiming to improve their marketing strategies in the growing e-commerce sector in Pakistan. This research enhances the understanding of impulsive buying behavior in the digital marketplace and emphasizes the critical role of perceived trust.

Keywords: Impulsive Buying Behavior, Perceived Trust, Online Shopping, SOR Model, Marketing Strategies

Introduction

Consumer behavior research seeks to understand clients' purchasing patterns, including their motivations, timing, and methods. Zhang et al. (2022) emphasize the impact of online platforms on consumer demand, especially with the rise of online shopping post-pandemic. The phenomenon of "impulse buying," marked by unplanned purchases, has notably increased in online retail, influenced by various factors such as innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events. Elevated emotional states serve as key psychological triggers for impulsive buying, with visually appealing advertisements and engaging content fostering positive emotions such as enthusiasm and joy, which heighten the likelihood of impulse purchases (Ahmed & Akhtar, 2023). Online purchasing has become easier due to recent technological developments, resulting in an upsurge in impulsive purchases. Quick purchases are encouraged using tactics such as personalized recommendations, immediate alerts, and time-sensitive discounts. The integration of artificial intelligence (AI) on shopping platforms enhances spontaneous buying by predicting user preferences and displaying relevant products. Mobile shopping apps further facilitate impulsive purchases by allowing consumers to shop conveniently at any time and place (Riaz & Bashir, 2024). Social influences also play a significant role in impulse buying, with online reviews, ratings, and social media endorsements helping to

build trust and urgency, motivating customers to make swift decisions. Recommendations from friends and social media have a considerable impact on online purchasing choices (Farooq & Javed, 2023). The Pakistani market has seen significant growth in e-commerce, especially following the COVID-19 pandemic, which has accelerated the adoption of online shopping among consumers (Farea & Hussain, 2025). This surge in e-commerce activities reflects the increasing reliance on digital platforms for shopping in the post-pandemic era. Online retailers employ various strategies such as flash sales and special offers to encourage immediate buying, aligning with tactics like loyalty programs and seasonal events to trigger impulsive purchases. Factors such as age, gender, and income influence impulsive buying behaviors, with younger demographics, like millennials and Gen Z, being more prone to such purchases due to their tech-savvy nature and desire for instant gratification. Research indicates that women, particularly those with disposable income, tend to engage in spontaneous buying more frequently. In this context, perceived trust (PT) plays a crucial role in mediating the relationship between these factors and impulsive buying behavior. The study of factors influencing casual online purchases among Pakistani buyers is crucial, particularly considering the emerging trend of live commerce. In 2021, Pakistan ranked as the 37th largest e-commerce market, generating \$5.9 billion in sales and experiencing a remarkable 45% growth rate, significantly outpacing the global average of 15% (ecommerceDB, 2022). Projections suggest that from 2021 to 2025, Pakistan's e-commerce sector will continue to grow faster than the global average of 6%, with only 19% of the population currently engaging in online shopping. The rapid advancement of digital technology has transformed consumer purchasing behaviors, leading to increased impulsive buying tendencies. Consumers benefit from conveniences absent in traditional retail, such as easy access to innovative products, seasonal sales events, and promotions. These factors align with recent findings that show how celebrity endorsements and loyalty programs further influence impulsive buying behavior (Zhao et al., 2021). Advancements in networks and information communication technologies have fostered a borderless digital environment, bridged information gaps and enhancing communication. This has facilitated global access to goods and services, positioning e-commerce as the preferred method for transactions, extending beyond mere buying and selling. The combination of customer service responsiveness and the availability of seasonal sales events strengthens the relationship between marketing strategies and impulsive buying behaviors in online environments. Impulsive buying habits have become increasingly prominent due to the rise of e-commerce and technological advancements (Sarah et al., 2020). Online impulse buying is defined as "a sudden and immediate online purchase without any pre-shopping intentions" (Chan, Cheung & Lee, 2017). Online shoppers are generally more impulsive than those in physical stores, as the online environment offers fewer restrictions. The ease of accessing innovative products, the presence of celebrity endorsements, and engaging loyalty programs contribute to this trend. Research indicates that approximately 40% of online consumer spending is linked to impulse purchases (Chan, Cheung & Lee, 2017). Arul Rajan (2020) emphasizes that the quality of logistics service and customer service responsiveness significantly influences impulsive purchasing behavior, further supporting the impact of the factors identified in the model. Promotional activities, such as time-limited offers and promotional incentives, are known to encourage consumer purchases, highlighting the role of seasonal sales events in influencing impulsive buying behavior (Chandrashekar & Grewal, 2003). Recent research suggests that online shopping platforms must effectively manage promotional tactics to prevent misleading offers, such as falsely advertising a "24-hour" sale. Despite these concerns, the influence of online marketing strategies, like Instagram discount codes, on impulsive purchases remains underexplored in certain markets (Kimiagari & Malafe, 2021). Live commerce, where products are actively demonstrated and tested, can significantly influence

impulsive buying behavior by leveraging customer trust and building urgency through strategies like celebrity endorsements and loyalty programs. By incorporating effective marketing incentives and situational influences, live merchants can further motivate customers to make impulsive buying decisions. This study highlights the importance of integrating the variables—innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events—into targeted marketing strategies to influence impulsive buying behavior in Pakistan's growing e-commerce market. Impulsive buying behavior is a complex phenomenon, shaped by multiple factors including innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events. These factors, when effectively combined, can encourage consumers to make spontaneous and unplanned purchases in online environments. The rise of promotional materials, time-limited offers, and the influence of social media endorsements have all contributed to increasing impulsive purchases. However, this can lead to undesirable outcomes, such as overconsumption and purchases that may not align with consumers' actual needs, often driven by a desire for social conformity or the pursuit of instant gratification (Vohs & Faber, 2007). Despite these drawbacks, impulsive buying behavior may provide consumers with a sense of pleasure and security, as it fulfills immediate emotional or psychological desires. This study aims to explore the following research questions, considering the significant factors influencing impulsive buying behavior in Pakistan's growing online market: This study addresses the following research questions:

1. What are the key drivers or determinants of impulsive purchasing behavior among internet consumers in Pakistan?

This question seeks to identify the factors from the conceptual model—such as innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events—that significantly influence impulsive buying behavior among Pakistani online shoppers.

2. What are the significant factors or determinants of perceived trust among internet consumers in Pakistan?

This question examines the role of perceived trust (PT) as a mediating variable in the context of online shopping in Pakistan. Understanding how elements like customer service responsiveness and seasonal sales events contribute to building trust is essential for identifying how trust affects impulsive purchasing decisions.

3. What is the mediating effect of perceived trust on the relationship between innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, seasonal sales events, and impulsive buying behavior among Pakistani online consumers?

These questions explore the mediating role of perceived trust in strengthening the relationship between various independent factors (such as online influencers, online reviews, logistic service quality, promotion time constraints, and promotional incentive information) and impulsive buying behavior. It seeks to understand how trust in online retailers influences the impact of these factors on impulsive purchases, ultimately guiding the development of more effective marketing strategies.

Literature Review

Impulse buying is characterized by spontaneous and unplanned purchases made without prior intention to fulfill specific needs (Beatty & Ferrell, 1998). This behavior arises from a sudden and intense desire to buy, often leading to acquisitions made without adequate consideration (Hausman, 2000). The motivations behind impulsive buying are complex, involving both internal psychological factors and external marketing influences, often resulting in emotional conflict. Research has identified four types of buying impulses: pure, suggested, reminded, and planned

(Stern, 1962). Emotions significantly influence impulse buying, as positive self-talk can encourage customers to make hasty purchases of unfamiliar products. Additionally, previous exposure to items can trigger impulse purchases, while planned impulse purchases occur when customers intend to buy but are uncertain about specific items. Wu, Chiu, and Chen (2020) identify three key factors in the spontaneous and impulsive purchase process: perceived risk, online store design, and the psychological state of the shopper. They note that consumers often view online shopping as riskier than shopping in physical stores, which can negatively affect satisfaction and perceived usefulness. To enhance consumer perceptions and satisfaction, it is essential to mitigate these risks, with online influencers playing a significant role in promoting impulsive buying behavior. Techniques such as skilled browsing and achieving a flow state are vital for increasing the likelihood of impulsive purchases (Wu, Chiu & Chen, 2020). Impulsive purchasing behavior presents a significant challenge in marketing, contrasting with traditional consumer behavior models that emphasize careful evaluation before purchase. The online environment, with its constant accessibility and extensive product range, influences impulsive buying. Factors such as social media, influencers, and promotional offers contribute to impulsive tendencies, leading to excessive consumption and societal pressure to keep up with trends for social validation. This behavior can result in acquiring unplanned items, providing both a temporary boost and a sense of assurance to consumers. The Stimulus Organism and Response Model (S-O-R), introduced by Mehrabian and Russell in 1974, is widely used in consumer behavior studies. Eroglu et al. (2001) explain that the model suggests stimuli affect individuals' internal states, with the organism acting as a mediator between stimuli and responses, which ultimately shape consumer behavior and avoidance. Hetharie et al. (2019) emphasize that emotional responses significantly impact consumer reactions to environmental stimuli, while Donovan and Rossiter (1982) note that perceptions are influenced by both external factors and beliefs. The S-O-R model effectively incorporates various elements relevant to product attributes, such as online reviews, promotion duration, and logistical service quality. This study focuses on the factors influencing online impulsive purchasing behavior among buyers in Pakistan. Internet shopping has gained global popularity, with the retail e-commerce industry generating \$4.28 trillion in 2020, projected to rise to \$5.4 trillion by 2022. Online impulsive buying is common, characterized by spontaneous and unplanned purchases. In the U.K., consumers engage in impulsive purchases totaling about £1 billion monthly, and around 80% of U.S. teenagers have made impulsive online purchases. Research indicates that approximately 40% of global internet transactions are impulsive (Gulfranz et al., 2022). Technological advancements have significantly altered consumer shopping behavior, particularly in online contexts. The rise of e-commerce has significantly altered consumer behavior, with online shopping increasing from 1.7 billion users in 2018 to an estimated 1.92 billion in 2023, driven in part by the COVID-19 pandemic (Croes & Bartels, 2021). Online shopping triggers impulsive purchases differently than traditional retail, influenced by website characteristics (Gil et al., 2008). Young adults are particularly drawn to social media influencers, who serve as effective marketing tools by providing product information and fostering trust (Harrigan et al., 2021; Zak & Hasprova, 2020). Online reviews also play a crucial role in shaping consumer decisions, with positive feedback encouraging impulse buys (Chatterjee, 2011; Restuputri et al., 2021; L. Wang, 2015; Zhang et al., 2018). Logistics service quality (LSQ) has become vital in e-commerce, emphasizing the need for efficient delivery systems as customer expectations rise (Wang & Wang, 2014; Wang, 2015). Time-limited promotions can induce impulsive purchases by creating a sense of urgency, leading consumers to act quickly without thorough consideration (Y. Wu et al., 2021; Chou, 2019; Hodkinson, 2016). Additionally, promotional incentives enhance consumer engagement and trust, further driving impulse buying behaviors (Prasilowati et al., 2021; Chen, 2021). Overall, the interplay of online shopping dynamics, influencer marketing, reviews, logistics, and promotional strategies significantly influences impulsive buying in the digital marketplace. Chatterjee (2011) initially suggested that online reviews significantly influence customer purchasing decisions, offering advantages over

traditional word-of-mouth in terms of accessibility and scope. He posited that online comments affect consumers' cognition, beliefs, attitudes, and judgments. An empirical study by Restuputri et al. (2021) found that customers are motivated to read online reviews for support and entertainment, often leading to impulse purchases when they encounter positive recommendations. Research by L. Wang (2015) indicated that both positive and negative reviews can similarly impact consumer perceptions, resulting in mixed feelings about products. Zhang et al. (2018) called for further investigation into the effects of hybrid information on impulsive buying. In the realm of online promotions, time-limited offers can prompt impulsive purchases as consumers feel pressured by urgency (Y. Wu et al., 2021). Chou (2019) examined countdown marketing's effects on hesitant consumers, while Hodgkinson (2016) discussed the psychological impact of fear of missing out on promotional opportunities. Chandrashekar and Grewal (2003) warned that deceptive practices, such as falsely advertising limited time offers, can manipulate consumer behavior. Hong (2021) found that time constraints significantly increase the likelihood of impulsive purchases, and Luo et al. (2021) emphasized the need for further research on various promotional tactics' effects on consumer behavior. In the context of the study, the independent variables are innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events. These external factors serve as stimuli that influence online shoppers' psychological and emotional responses, ultimately impacting their impulsive buying behavior (Chandon, Wansink, & Laurent, 2000; Erdogan, 1999). Perceived trust plays a mediating role, moderating the relationship between these stimuli and impulsive buying behavior, which is the dependent variable (Zeithaml, 2000). The research delves into how external factors such as online reviews, logistics service quality, promotional incentives, and time-sensitive offers interact with internal states like emotional triggers and perceived risk to foster impulsive buying. The emotional state of the consumer, whether aroused by a positive review or an enticing promotion, drives them to make unplanned purchases, as outlined by the Stimulus-Organism-Response (SOR) model (Mehrabian & Russell, 1974). The study emphasizes the complex interplay between these factors, highlighting how stimuli like innovative products and celebrity endorsements can spur an emotional response that leads to impulsive buying, especially when trust in the brand or platform is established (Ahmed & Akhtar, 2023; Keller, 2003). The findings suggest that while impulsive buying can provide a sense of satisfaction and social validation, it also has societal and environmental impacts, including the tendency to purchase unwanted items due to peer pressure or the desire to keep up with trends (Rook, 1987). Therefore, understanding these psychological and marketing factors is essential for online retailers aiming to influence consumer behavior in Pakistan's rapidly growing e-commerce market. By integrating the SOR theory and the mediating effect of perceived trust, this study offers a comprehensive view of how external and internal factors converge to influence impulsive buying behavior in the online shopping context.

Impulsive Buying Behavior

Impulsive buying is defined as unplanned, spontaneous purchasing decisions made without prior intention or thoughtful consideration (Beatty & Ferrell, 1998). This behavior is often triggered by emotional stimuli, such as excitement, novelty, or situational influences, rather than rational needs (Hausman, 2000). Consumers typically engage in impulsive buying when they experience a sudden desire to purchase something, often resulting in acquisitions that are not aligned with their original plans or budget (Rook, 1987). Several factors have been identified as key drivers of impulsive buying. For example, external stimuli such as discounts, promotional incentives, and the presence of celebrities or influencers in marketing campaigns are known to prompt impulsive buying behaviors (Chandon, Wansink, & Laurent, 2000; Kim & Lee, 2020). The online shopping environment, with its ease of accessibility and frequent exposure to sales and discounts, further encourages impulse purchases (Wu, Chiu, & Chen, 2020). Moreover, emotional triggers, such as the joy of acquiring a new product or the fear of missing out on a limited time offer, are common

psychological mechanisms that propel impulsive buying (Chan, Cheung, & Lee, 2017). These behaviors are influenced by the ease and immediacy of online transactions, which diminish the barriers to purchase that might exist in traditional shopping settings (Sarah et al., 2020).

Perceived Trust

Perceived trust refers to a consumer's belief in the reliability and integrity of an online retailer or platform (McKnight, Choudhury, & Kacmar, 2002). Trust plays a central role in consumer decision-making, especially in online environments where consumers cannot physically interact with products before purchasing. Trust influences how consumers assess the risk of a purchase, the likelihood of receiving the product as described, and the security of their personal information (Gefen, 2000). Trust can mitigate the perceived risks of online shopping, which include concerns about fraud, product quality, and delivery reliability (Belanche, Casaló, & Flavián, 2020). Research shows that perceived trust is particularly important in fostering consumer loyalty and engagement with online retailers (Morgan & Hunt, 1994). Higher levels of trust can reduce the perceived uncertainty associated with online transactions, making consumers more likely to engage in unplanned or impulsive purchases (Kim & Lee, 2020). For instance, a trusted platform may make a consumer more comfortable with purchasing a product they had not initially planned to buy, either due to a promotion or because the product is endorsed by a trusted figure (Chaudhuri & Holbrook, 2001). Trust has also been shown to mediate the relationship between marketing activities (e.g., online reviews, celebrity endorsements) and impulsive buying behavior (Wu, Chiu, & Chen, 2020).

The Interplay Between Impulsive Buying and Perceived Trust

While impulsive buying is often characterized by spontaneity and emotional responses, perceived trust acts as an essential mediator that influences how consumers respond to external stimuli in the online environment. Research indicates that consumers are more likely to make impulsive purchases when they have high levels of trust in the platform or brand, as trust reduces the perceived risks associated with the transaction (Gefen, 2000). For example, an online review from a trusted source or a celebrity endorsement on a trusted platform can evoke emotional reactions that encourage impulsive buying decisions (Ahmed & Akhtar, 2023). Similarly, promotional incentives and time-limited offers, when combined with perceived trust, can trigger a sense of urgency and increase the likelihood of impulsive purchases (Chandon, Wansink, & Laurent, 2000). Moreover, perceived trust can also enhance the effectiveness of loyalty programs in influencing impulsive buying behavior. Consumers who trust a retailer are more likely to participate in loyalty programs, which often offer incentives that trigger impulse buying decisions (Kim & Lee, 2020). Trust in the retailer's customer service responsiveness further reinforces the emotional security required for impulsive buying, as consumers feel confident that they can resolve any issues post-purchase (McKnight et al., 2002). Therefore, trust not only encourages impulsive purchases directly but also amplifies the impact of other marketing stimuli.

Innovative Products

Innovative products have been shown to significantly influence impulsive buying behavior, particularly in the online shopping environment. Innovative products often evoke curiosity and excitement, prompting consumers to make unplanned purchases due to their novelty and perceived value (Pookulangara & Koeske, 2011). Research indicates that the introduction of unique or cutting-edge products can trigger emotional responses such as excitement and joy, which in turn increase the likelihood of impulsive buying (Chandon, Wansink, & Laurent, 2000). The appeal of innovation encourages customers to make hasty purchasing decisions, especially when combined

with visually appealing marketing strategies (Rook, 1987). This phenomenon is particularly evident in the tech and fashion industries, where new releases often generate a sense of urgency among consumers, fostering impulsive buying tendencies (Wu, Chiu, & Chen, 2020).

Celebrity Endorsements

Celebrity endorsements play a critical role in stimulating impulsive buying behavior by leveraging the emotional connection that consumers have with celebrities. Endorsements by well-known figures create a sense of trust and credibility, which can lead to spontaneous purchases (Erdogan, 1999). Studies have shown that consumers often identify with celebrities, and their influence can generate an immediate emotional response, prompting unplanned purchases (Keller, 2003). According to Ahmed and Akhtar (2023), celebrity endorsements not only boost brand awareness but also enhance emotional engagement with consumers, especially in the digital era where influencers on social media platforms are increasingly playing a pivotal role. The power of celebrity endorsements is amplified when consumers feel that the endorsed products reflect their own social aspirations, increasing their likelihood of engaging in impulsive buying behavior (Tepper & DeNeve, 2019).

Loyalty Programs

Loyalty programs have a strong influence on impulsive buying behavior by offering incentives that encourage repeat purchases. These programs, particularly in e-commerce, often provide immediate rewards such as discounts, points, or exclusive offers, which can stimulate spontaneous purchasing (Dick & Basu, 1994). Research suggests that the presence of loyalty programs creates a psychological commitment, making consumers feel rewarded and more inclined to make hasty purchases to maximize their perceived value (Verhoef, 2003). Loyalty rewards, such as coupons or special deals for frequent buyers, trigger impulsive buying by offering immediate benefits and a sense of urgency to utilize the rewards before they expire (Chandon et al., 2000). This can lead to both planned and unplanned purchases, with consumers motivated by the idea of gaining additional benefits from their transactions (Rook & Fisher, 1995).

Customer Service Responsiveness

The responsiveness of customer service plays a significant role in shaping impulsive buying behavior. Consumers are more likely to make unplanned purchases when they feel confident that their concerns will be addressed quickly and efficiently. Research has shown that prompt and helpful customer service increases consumer trust and satisfaction, both of which are key factors in driving impulsive purchases (Berry, 1995). When customers perceive that they can easily resolve potential issues, they are more likely to engage in impulse buying, particularly in an online environment where immediate feedback is expected (Parasuraman, Zeithaml, & Berry, 1988). Responsive customer service also reinforces positive emotional experiences, reducing perceived risk and enhancing the likelihood of impulsive decisions (Hausman, 2000). Studies have indicated that consumers are more likely to forgive minor issues with products when supported by excellent customer service, which further encourages them to make unplanned purchases (Zeithaml et al., 1996).

Seasonal Sales Events

Seasonal sales events, such as Black Friday or holiday discounts, have a significant impact on impulsive buying behavior. These events create a sense of urgency due to limited time offers, which trigger a fear of missing out (FOMO) and compel consumers to make rapid, unplanned purchases (Kahn & Loewenstein, 2014). Research highlights that time-limited promotions during seasonal sales encourage consumers to make impulsive decisions because they perceive the

opportunity as scarce and time-sensitive (Gao et al., 2019). The availability of discounted prices during such events leads consumers to act impulsively, driven by the idea of getting a good deal before the offer expires (Lichtenstein et al., 1993). Studies have shown that sales events lead to an emotional high, further motivating consumers to buy items they might not have considered outside of such an event (Bertini et al., 2017). This is particularly true in the online shopping environment, where consumers can quickly navigate through sales events and make purchases at the click of a button.

The S-O-R (stimuli-organism-response)

The present study utilizes the Stimuli Organism Response (SOR) theory, as proposed by Zhang et al. (2022), to investigate the factors influencing impulsive purchase behavior among online buyers in Pakistan. The SOR theory, a cognitive psychology framework, emphasizes the significance of individual physiological and psychological processes in mediating responses to stimuli, which aids in understanding consumer buying behavior. According to Lamis et al. (2022), the SOR hypothesis suggests that stimuli provoke internal reactions (the organism), which subsequently affect behavioral responses. Chan et al. (2017) further elaborate that various stimuli can elicit both affective and cognitive internal responses, influencing behavioral outcomes. The concept of "organismic response" is defined by Liu & Lu (2017) as an individual's internal reaction to stimuli, while Liu et al. (2019) describe the resultant action as the individual's response. Previous research has explored aspects such as purchasing intention and impulsive buying behavior (Liu et al., 2019, 2013; Liu & Lu, 2017). The hypothesis is supported by independent variables like internet influencers, online reviews, logistics service quality, promotion incentive information, and promotion time restrictions, which enhance its relevance. In this context, a stimulus is an event that triggers a behavioral response in online consumers, influenced by various factors that affect their impulsive purchasing tendencies. Perceived trust is viewed as a cognitive evaluation by the consumer, leading to impulsive buying behavior as a consumer response. Understanding consumer behavior is rooted in the stimulus-response concept, where consumers recognize the effects of marketing strategies and environmental factors. Psychological processes, including motivation, perception, learning, and memory, play a crucial role in shaping decision-making and purchase decisions (Kotler & Keller, 2006).

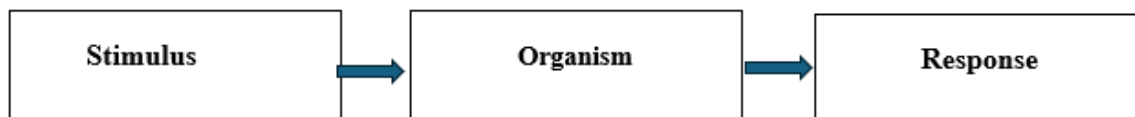


Figure 1: The SOR Model (stimuli-organism-response)

Based on the Social-Organismic Response (SOR) framework, it is posited that the presence of various stimuli can elicit internal responses in individuals, encompassing both affective and cognitive dimensions. These internal reactions, in turn, exert an influence on subsequent behavioral outcomes (Chan et al., 2017). The term "stimulus" encompasses the concept of "organismic response" (Liu & Lu, 2017) is frequently employed to characterize the phenomenon of an individual's internal reaction to stimuli. The action undertaken by an individual in response to an internal input is referred to as their response (Liu et al., 2019). Previous studies have examined several aspects, such as purchasing intention and impulsive buying behavior, as explored by Liu et al. (2019, 2013) and Liu & Lu (2017). The hypothesis is supported by independent variables such as internet influencers, online reviews, logistics service quality, promotion incentive information, and promotion time restriction, which contribute to its relevance and explanatory power. As previously mentioned, a stimulus refers to a component or event that elicits a behavioral response in an individual. However, in this scenario, online consumers are subject to the influence of these variables, which in turn affects their tendency towards impulsive purchasing. Perceived

trust is conceptualized as an internal evaluation made by the consumer, functioning as a cognitive process within the individual. Finally, the consumer's decision to engage in impulsive buying behavior is documented as a consumer response. The foundation of comprehending consumer behavior is in the stimulus-response concept. Consumers develop an awareness of the impacts exerted by marketing strategies and environmental factors. The amalgamation of psychological processes contributes to the formation of decision-making and purchase decisions, which are influenced by distinct consumer features. The influence of customer responses to different marketing stimuli is determined by four key psychological processes, including motivation, perception, learning, and memory (Kotler & Keller, 2006). This study investigates the underlying factors that drive impulsive buying behavior (IBB) among online shoppers in Pakistan, with a particular focus on how these factors interact within the framework of the Stimulus-Organism-Response (S-O-R) model. The research aims to pinpoint the key drivers of IBB in the online shopping context, using perceived trust (PT) as a mediating variable to better understand consumer decision-making. By examining a sample of 330 complete responses from 350 distributed questionnaires through snowball sampling, the study reveals several important insights into the dynamics of impulsive purchasing behavior in the digital marketplace. The conceptual framework for this study is based on the Stimulus-Organism-Response (S-O-R) model, which helps to understand the dynamics of impulsive buying behavior (IBB) in online shopping. This framework identifies the external stimuli, such as innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events, as key drivers influencing consumer behavior. These stimuli are hypothesized to affect the internal state of the consumer (the organism), particularly perceived trust (PT), which acts as a mediating factor in the relationship between these stimuli and IBB. The framework aims to provide a comprehensive understanding of how these factors collectively shape impulsive buying behavior among Pakistani online consumers.

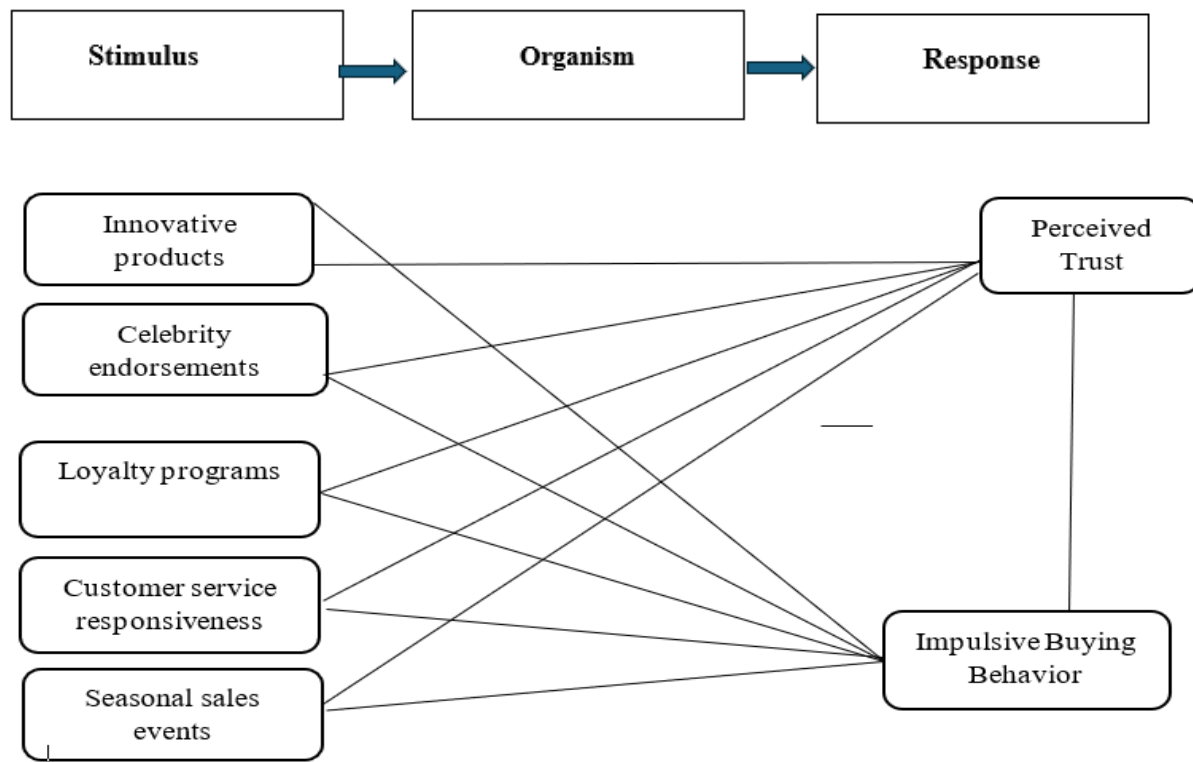


Figure 2: Conceptual Framework

Table 1 presents the research hypotheses of the study, along with their detailed descriptions. It provides a clear framework for understanding the study's objectives and expected relationships.

Table 1: Research Hypotheses and Descriptions

Hypotheses	Descriptions	Path
H1	Innovative products have a significant positive impact on Impulsive buying	IP → IBB
H2	Celebrity endorsements have a significant positive impact on Impulsive buying	CE → IBB
H3	Loyalty programs have a significant positive impact on Impulsive buying	LP → IBB
Y	Customer service responsiveness has a significant positive impact on Impulsive buying	CSR → IBB
Y	Seasonal sales events have a significant positive impact on Impulsive buying	SSE → IBB
Y	Perceived trust has a significant positive impact on consumers' impulse buying.	PT → IBB
Y	Innovative products have a significant positive impact on Perceived Trust	IP → PT
Y	Celebrity endorsements have a significant positive impact on Perceived Trust	CE → PT
H9	Loyalty programs have a significant positive impact on Perceived Trust	LP → PT
H10	Customer service responsiveness has a significant positive impact on Perceived Trust	CSR → PT
H11	Seasonal sales events have a significant positive impact on Perceived Trust	SSE → PT
Hypotheses	Mediation Effects of Perceived Trust	
H12	Perceived Trust mediates the relationship between online influencers and Impulsive buying behavior.	OI → PT → IBB
H13	Perceived Trust mediates the relationship between Innovative products and Impulsive buying behavior.	IP → PT → IBB
H14	Perceived Trust mediates the relationship between Celebrity endorsements and Impulsive buying behavior.	CE → PT → IBB
H15	Perceived Trust mediates the relationship between Loyalty programs and Impulsive buying behavior.	LP → PT → IBB
H16	Perceived Trust mediates the relationship between Seasonal sales events and Impulsive buying behavior.	SSE → PT → IBB

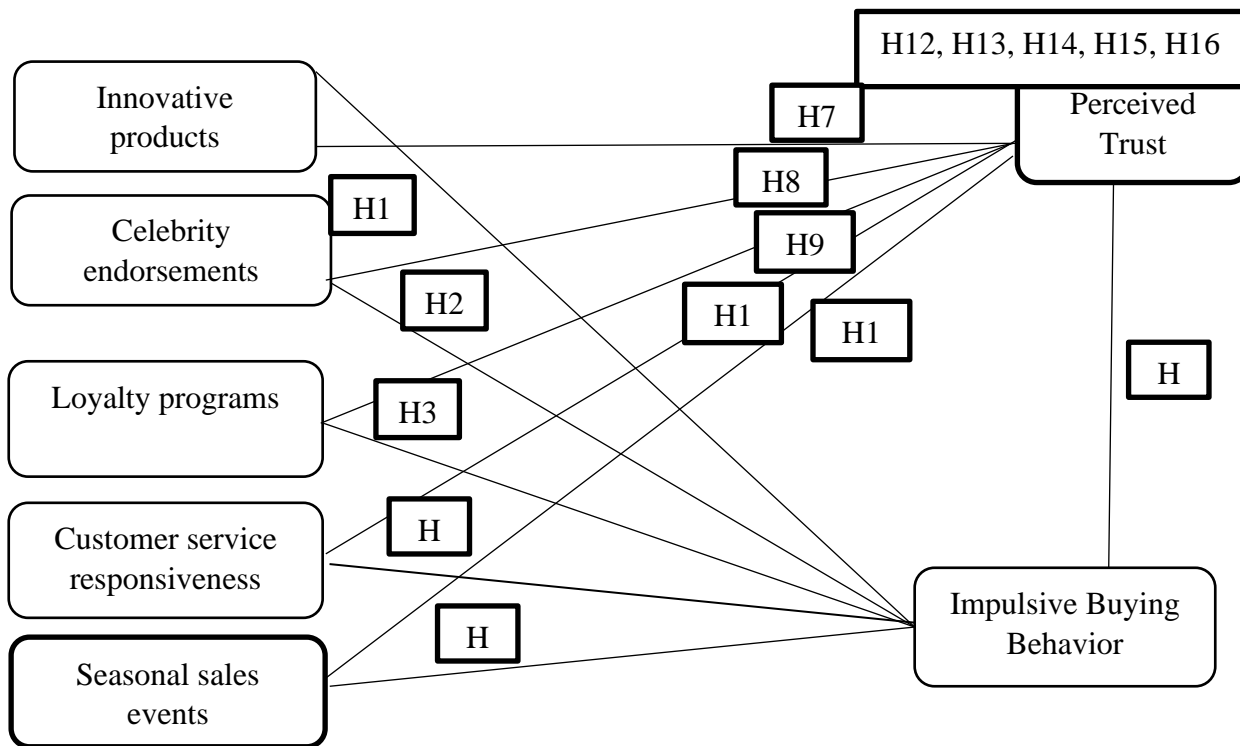


Figure 3: Conceptual Framework and Hypotheses

Research Methodology

The research employed a quantitative approach to examine the mediating effect of perceived trust on impulsive purchasing in Pakistani e-commerce. The population comprises online clients from various demographics, encompassing geographic locations, socioeconomic statuses, genders, and age categories. Utilizing the snowball sampling method: The sample comprises 350 respondents, gathered from online communities, social media platforms, and e-commerce websites. The research employed Partial Least Squares Structural Equation Modeling (PLS-SEM).

Analysis and Findings

The primary objectives of this research were to examine the impact of innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events on the impulsive purchasing behavior of online customers in Pakistan. In this context, perceived trust acted as a mediating factor, influencing the relationship between these external factors and impulsive buying behavior. The study aimed to understand how these factors, when coupled with emotional and psychological triggers, contribute to unplanned purchases in the growing e-commerce market of Pakistan. By investigating the interplay between these variables and perceived trust, the research provides insights into how online retailers can leverage these elements to influence consumer behavior. Table 2 presents the results of the measurement model, highlighting the reliability and convergent validity of the constructs used in the study. It includes the composite reliability and item loadings for each construct, demonstrating the consistency and strength of the measurement items.

Table 2: Measurement Model: Reliability and Convergent Validity

Constructs	Items	Loadings	Composite Reliability
Impulsive Buying Behavior	IBB1	0.704	0.906
	IBB2	0.822	
	IBB3	0.74	
	IBB4	0.817	
	IBB5	0.889	
	IBB6	0.725	
Customer service responsiveness	CSR1	0.739	0.927
	CSR 2	0.84	
	CSR 3	0.928	
	CSR 4	0.795	
	CSR 5	0.922	
Celebrity endorsements	CEI1	0.829	0.948
	CEI2	0.892	
	CEI3	0.917	
	CEI4	0.884	
	CEI5	0.919	
	CEI6	0.752	
Innovative products	IP 1	0.578	0.848
	IP 2	0.868	
	IP 3	0.656	
	IP 4	0.858	
	IP 5	0.644	
Loyalty programs	LP1	0.843	0.91
	LP 2	0.808	
	LP 3	0.874	
	LP 4	0.799	
	LP 5	0.76	
Perceived Trust	PT1	0.714	0.859
	PT2	0.713	
	PT3	0.723	
	PT4	0.814	
	PT5	0.742	
Seasonal sales events	SSE1	0.794	0.887
	SSE 2	0.843	
	SSE 3	0.892	
	SSE L4	0.719	

The results from Table 2 indicate that the measurement model demonstrates strong reliability and convergent validity. Composite reliability values for all constructs exceed the acceptable threshold of 0.7, with Celebrity Endorsements (CEI) showing the highest value of 0.948, indicating excellent internal consistency. The item loadings also support convergent validity, as most items across constructs have loadings above 0.7, reflecting a strong relationship with their respective constructs. However, Innovative Products (IP) contains one item (IP1) with a relatively low loading of 0.578, suggesting it may need revision. Overall, the constructs Impulsive Buying Behavior (IBB),

Customer Service Responsiveness (CSR), Loyalty Programs (LP), and Perceived Trust (PT) show good to excellent reliability and validity. This suggests that the measurement model is robust, although further refinement could improve the fit for the Innovative Products construct. Table 3 presents the reliability and convergent validity metrics for the constructs in the measurement model. It includes Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE) values for each construct.

Table 3: Measurement Model: Average Variance Extracted (AVE) and Cronbach's Alpha

Items	Cronbach's Alpha	Composite Reliability	Average variance extracted (AVE)
IBB	0.875	0.906	0.617
CSR	0.901	0.927	0.72
IP	0.933	0.948	0.753
CE	0.828	0.848	0.534
LP	0.876	0.91	0.669
PT	0.799	0.859	0.551
SSE	0.832	0.887	0.663

Table 3 presents the results for the reliability and validity of the constructs in terms of Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). The Cronbach's Alpha values range from 0.799 to 0.933, indicating that all constructs demonstrate good internal consistency, as values above 0.7 are generally considered acceptable. The Composite Reliability values are also above the threshold of 0.7, further confirming the reliability of the constructs, with the highest being for "Innovative Products" (0.948) and the lowest for "Celebrity Endorsements" (0.848). Regarding convergent validity, the AVE values range from 0.534 (Celebrity Endorsements) to 0.753 (Innovative Products), indicating that most constructs meet the acceptable threshold of 0.5. However, "Celebrity Endorsements" (AVE = 0.534) is slightly below this threshold, suggesting that this construct may require further refinement to fully establish convergent validity. Overall, the results suggest that the constructs used in the study are reliable and exhibit satisfactory convergent validity, with some areas, such as Celebrity Endorsements, requiring attention for improvement. Table 4 highlights the discriminant validity of the constructs, assessed using the Fornell and Larcker Criterion. This analysis ensures that each construct is distinct from others, demonstrating the model's robustness and validity.

Table 4: Discriminant Validity (Fornell and Larcker Criterion)

	Impulsive Buying Behavior	Customer service responsiveness	Innovative products	Celebrity endorsements	Loyalty programs	Perceived Trust	Seasonal sales events
IBB	0.785						
CSR	0.67	0.848					
IP	0.646	0.901	0.868				
CE	0.45	0.704	0.577	0.731			
LP	0.654	0.908	0.87	0.551	0.818		
PT	0.59	0.599	0.567	0.336	0.588	0.742	
SSE	0.453	0.611	0.577	0.367	0.732	0.669	0.815

Table 4 presents the results of discriminant validity using the Fornell and Larcker Criterion. The diagonal values in bold represent the square root of the Average Variance Extracted (AVE) for each construct, while the off-diagonal values show the correlations between constructs. For discriminant validity to be established, the diagonal values (square roots of AVE) must be higher than the corresponding off-diagonal values in their respective rows and columns. The results indicate that each construct (e.g., Impulsive Buying Behavior, Customer Service Responsiveness, etc.) exhibits adequate discriminant validity, as the square root of AVE for each construct is greater than its correlations with other constructs. This confirms that the constructs are distinct from one another, ensuring the reliability and validity of the measurement model.

Table 5: Hypotheses Testing for Direct Relationship

Hypotheses	Relationship	Std Beta	Std Error	t-value	p-values	Decision
H1	IP → IBB	0.312	0.099	3.152	0.002	Supported
H2	CE → IBB	0.077	0.060	1.282	0.100	Not supported
H3	LP → IBB	0.061	0.171	0.357	0.361	Not supported
H4	CSR → IBB	0.394	0.149	2.655	0.004	Supported
H5	SSE → IBB	-0.221	0.074	2.977	0.001	Supported
H6	PT → IBB	0.377	0.059	6.440	0.000	Supported
H7	IP → PT	0.145	0.098	1.487	0.069	Not supported
H8	CE → PT	-0.163	0.071	2.306	0.011	Supported
H9	LP → PT	0.649	0.144	4.509	0.000	Supported
H10	CSR → PT	-0.474	0.131	3.617	0.000	Supported
H11	SSE → PT	0.595	0.067	8.872	0.000	Supported

The Table 4 summarizes the results of the hypotheses testing for direct relationships between variables in the study. Significant relationships were determined by evaluating the t-values and p-values. A relationship was supported if the t-value exceeded the threshold (typically 1.96 for a 95% confidence level) and the p-value was below 0.05.

- **H1 (IP → IBB):** Innovative products significantly impact impulsive buying behavior, with a strong beta value of 0.312, a t-value of 3.152, and a p-value of 0.002, indicating statistical significance. This shows that innovative products positively influence consumers' impulsive buying behavior.
- **H2 (CE → IBB):** Celebrity endorsements do not significantly impact impulsive buying behavior, as the p-value is 0.1 and the t-value is below the threshold at 1.282.
- **H3 (LP → IBB):** Loyalty programs also do not significantly influence impulsive buying behavior, with a low t-value of 0.357 and a p-value of 0.361.
- **H4 (CSR → IBB):** Customer service responsiveness has a significant positive effect on impulsive buying behavior, evidenced by a beta value of 0.394, a t-value of 2.655, and a p-value of 0.004.
- **H5 (SSE → IBB):** Seasonal sales events negatively impact impulsive buying behavior, as shown by the negative beta value (-0.221), a significant t-value of 2.977, and a p-value of 0.001.
- **H6 (PT → IBB):** Perceived trust significantly affects impulsive buying behavior, with a high beta value of 0.377, a strong t-value of 6.440, and a p-value of 0.000.

- **H7 (IP → PT):** Innovative products do not significantly impact perceived trust, as the t-value is 1.487, and the p-value is 0.069, which exceeds the 0.05 threshold.
- **H8 (CE → PT):** Celebrity endorsements significantly impact perceived trust, with a t-value of 2.306 and a p-value of 0.011, indicating statistical significance.
- **H9 (LP → PT):** Loyalty programs strongly influence perceived trust, as shown by the beta value of 0.649, a t-value of 4.509, and a p-value of 0.000.
- **H10 (CSR → PT):** Customer service responsiveness negatively impacts perceived trust, with a significant beta value of -0.474, a t-value of 3.617, and a p-value of 0.000.
- **H11 (SSE → PT):** Seasonal sales events have a significant positive influence on perceived trust, demonstrated by a high beta value of 0.595, a strong t-value of 8.872, and a p-value of 0.000.

The coefficient of determination (R^2) explains the proportion of variance in the dependent variables accounted for by the independent variables in the model. Table 5 presents the R^2 values for the direct relationships in the study, indicating the predictive power of the model for impulsive buying behavior and perceived trust.

Table 5: Coefficient of the Determination for Direct Relationships: R-Squared

Latent Variable	R^2
Impulsive Buying Behavior	0.532
Perceived Trust	0.486

Table 5 presents the R^2 values for the direct relationships in the model, which indicate the proportion of variance explained by the independent variables.

- **Impulsive Buying Behavior (IBB):** The R^2 value of 0.532 suggests that the model accounts for 53.2% of the variance in impulsive buying behavior. This indicates that the factors included in the model, such as promotional incentives, perceived trust, and others, have a moderately strong predictive ability in influencing impulsive buying behavior.
- **Perceived Trust (PT):** The R^2 value of 0.486 shows that the model explains 48.6% of the variance in perceived trust. While the explanatory power is slightly lower than that of impulsive buying behavior, it still indicates that the model captures nearly half of the variation in consumers' trust perceptions.

Table 6: Assessment of the Effect Size for Direct Relationships: F-Square

Predictor Endogenous	F-squared	Effect Size
IP → IBB	0.035	Weak
CE → IBB	0.078	Weak
LP → IBB	0.06	Weak
CSR → IBB	0.1	Moderate
SSE → IBB	0.141	Moderate
PT → IBB	0.095	Moderate
IP → PT	0.15	Moderate
CE → PT	0.08	Weak
LP → PT	0.12	Weak
CSR → PT	0.052	Weak
SSE → PT	0.338	Strong

The results in the table 6 indicate varying degrees of effect size for different predictors on Impulsive Buying Behavior (IBB) and Perceived Trust (PT). Customer Service Responsiveness (CSR) and Seasonal Sales Events (SSE) show moderate effects on IBB, suggesting that these factors have a noticeable influence on impulsive buying behavior. Perceived Trust (PT) is strongly impacted by SSE, indicating that promotional events significantly enhance customer trust. Meanwhile, factors like Innovative Products (IP), Celebrity Endorsements (CE), and Loyalty Programs (LP) show weak effects on both IBB and PT, highlighting their limited direct influence. Overall, Seasonal Sales Events stand out as the most influential factor in shaping both trust and impulsive purchasing behavior.

Table 7: Structural Model: Test of Significance for Mediating Relationships

Hypotheses	Relationship	Std Beta	Std Error	t-statistics	p-values	Decision
H12	SSE -> PT -> IBB	0.055	0.04	1.378	0.084	Not supported
H13	CE -> PT -> IBB	-0.061	0.028	2.178	0.015	Supported
H14	IP -> PT -> IBB	0.245	0.068	3.615	0	Supported
H15	CSR -> PT -> IBB	-0.178	0.06	2.972	0.001	Supported
H16	LP -> PT -> IBB	0.224	0.046	4.887	0	Supported

The results in Table 7 present the mediation effects of Perceived Trust (PT) on the relationship between various predictors (SSE, CE, IP, CSR, LP) and Impulsive Buying Behavior (IBB). Among the hypotheses tested, H12 (SSE → PT → IBB) was not supported, as the p-value (0.084) is above the significance threshold of 0.05, indicating that Seasonal Sales Events do not significantly affect impulsive buying behavior through Perceived Trust. On the other hand, H13 (CE → PT → IBB), H14 (IP → PT → IBB), H15 (CSR → PT → IBB), and H16 (LP → PT → IBB) were supported with p-values less than 0.05, confirming that Celebrity Endorsements, Innovative Products, Customer Service Responsiveness, and Loyalty Programs positively affect impulsive buying behavior through their impact on Perceived Trust. These results suggest that Perceived Trust plays a key mediating role in influencing impulsive buying behavior for these factors.

Table 8: Summary of Hypotheses Finding

No	Hypotheses Statements	Decision
H1	Innovative Products (IP) have a significant positive impact on Impulsive Buying Behavior (IBB).	Not Supported
H2	Celebrity Endorsements (CE) have a significant positive impact on Impulsive Buying Behavior (IBB).	Not Supported
H3	Loyalty Programs (LP) have a significant positive impact on Impulsive Buying Behavior (IBB).	Not Supported
H4	Customer Service Responsiveness (CSR) has a significant positive impact on Impulsive Buying Behavior (IBB).	Not Supported
H5	Seasonal Sales Events (SSE) have a significant positive impact on Impulsive Buying Behavior (IBB).	Supported
H6	Perceived Trust (PT) has a significant positive impact on Impulsive Buying Behavior (IBB).	Supported
H7	Innovative Products (IP) have a significant positive impact on Perceived Trust (PT).	Supported

H8	Celebrity Endorsements (CE) have a significant positive impact on Perceived Trust (PT).	Not Supported
H9	Loyalty Programs (LP) have a significant positive impact on Perceived Trust (PT).	Supported
H10	Customer Service Responsiveness (CSR) has a significant positive impact on Perceived Trust (PT).	Supported
H11	Seasonal Sales Events (SSE) have a significant positive impact on Perceived Trust (PT).	Supported
H12	Perceived Trust mediates the relationship between Innovative Products (IP) and Impulsive Buying Behavior (IBB).	Supported
H13	Perceived Trust mediates the relationship between Celebrity Endorsements (CE) and Impulsive Buying Behavior (IBB).	Supported
H14	Perceived Trust mediates the relationship between Loyalty Programs (LP) and Impulsive Buying Behavior (IBB).	Supported
H15	Perceived Trust mediates the relationship between Customer Service Responsiveness (CSR) and Impulsive Buying Behavior (IBB).	Supported
H16	Perceived Trust mediates the relationship between Seasonal Sales Events (SSE) and Impulsive Buying Behavior (IBB).	Not Supported

The Table 8 presents the results of hypotheses testing regarding the impact of various predictors on Impulsive Buying Behavior (IBB) and Perceived Trust (PT), as well as the mediating role of Perceived Trust. Hypotheses H1 to H6 explore the direct effects of factors such as Innovative Products, Celebrity Endorsements, Loyalty Programs, Customer Service Responsiveness, Seasonal Sales Events, and Perceived Trust on Impulsive Buying Behavior. Among these, Seasonal Sales Events (SSE) and Perceived Trust (PT) are found to have a significant positive impact on Impulsive Buying Behavior, while other factors like Innovative Products, Celebrity Endorsements, Loyalty Programs, and Customer Service Responsiveness do not significantly affect IBB. Hypotheses H7 to H11 examine the influence of these predictors on Perceived Trust. The results indicate that Innovative Products, Loyalty Programs, Customer Service Responsiveness, and Seasonal Sales Events all significantly enhance Perceived Trust, while Celebrity Endorsements do not have a notable effect. Finally, Hypotheses H12 to H16 focus on the mediating role of Perceived Trust in the relationship between these predictors and Impulsive Buying Behavior. Perceived Trust is found to mediate the relationship between Innovative Products, Celebrity Endorsements, Loyalty Programs, and Customer Service Responsiveness with Impulsive Buying Behavior. However, Perceived Trust does not mediate the impact of Seasonal Sales Events on Impulsive Buying Behavior. In summary, Perceived Trust plays a significant role in shaping consumer behavior, particularly when it comes to Innovative Products, Loyalty Programs, and Customer Service Responsiveness, while Celebrity Endorsements have little impact on both Perceived Trust and Impulsive Buying Behavior. This study aimed to explore the answers to three critical research questions regarding online consumer behavior in Pakistan. The first question investigates the key drivers or determinants of impulsive purchasing behavior among internet consumers. The second focuses on the significant factors that influence perceived trust among online consumers in Pakistan. The third examines the mediating effect of perceived trust on the relationship between various factors—such as innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, and seasonal sales events—and impulsive buying behavior. By exploring these questions, the study seeks to provide a comprehensive understanding of the factors that shape online shopping behavior in Pakistan.

RQ 1: What are the key drivers or determinants of impulsive purchasing behavior among internet consumers in Pakistan?

The key drivers of impulsive purchasing behavior among internet consumers in Pakistan, as identified in this study, include Perceived Trust (PT) and Seasonal Sales Events (SSE). These factors were found to have a significant positive impact on impulsive buying behavior. Perceived Trust (PT) plays a crucial role in boosting consumer confidence and reducing hesitation, leading to more impulsive purchasing decisions. On the other hand, Seasonal Sales Events (SSE) also directly influence impulsive buying behavior, emphasizing the importance of time-sensitive offers and promotions that prompt quick purchases. Interestingly, other factors such as Innovative Products (IP), Celebrity Endorsements (CE), and Loyalty Programs (LP) did not have a significant direct effect on impulsive buying behavior, suggesting that while they may influence consumer interest, they do not drive impulse purchases in the same way as trust and seasonal events.

RQ 2: What are the significant factors or determinants of perceived trust among internet consumers in Pakistan?

The significant factors influencing perceived trust (PT) among internet consumers in Pakistan, according to the study, are Innovative Products (IP), Loyalty Programs (LP), Customer Service Responsiveness (CSR), and Seasonal Sales Events (SSE). These factors directly contribute to building trust in online platforms, encouraging consumers to feel more confident in making online purchases. Innovative Products (IP) and Customer Service Responsiveness (CSR), in particular, were found to enhance trust by providing consumers with high-quality experiences and dependable support. Loyalty Programs (LP) foster a sense of security and long-term value, while Seasonal Sales Events (SSE) create a sense of urgency and reliability. However, Celebrity Endorsements (CE) did not significantly impact perceived trust in this context, indicating that endorsements may not directly contribute to fostering consumer trust in online shopping.

RQ 3: What is the mediating effect of perceived trust on the relationship between innovative products, celebrity endorsements, loyalty programs, customer service responsiveness, seasonal sales events, and impulsive buying behavior among Pakistani online consumers?

Perceived trust acts as a critical mediating variable in influencing impulsive buying behavior among Pakistani online consumers. The study reveals that perceived trust significantly mediates the relationship between Innovative Products (IP), Celebrity Endorsements (CE), Loyalty Programs (LP), and Customer Service Responsiveness (CSR) with impulsive buying behavior. This means that when consumers trust an online platform, they are more likely to make impulsive purchases in response to these factors. However, Seasonal Sales Events (SSE) demonstrated a direct effect on impulsive buying behavior, independent of trust, suggesting that while trust is important, time-sensitive promotions can trigger impulsive purchases without the need for trust as an intermediary factor. In conclusion, businesses should focus on building trust through effective customer service, loyalty programs, and innovative products, while also leveraging time-limited promotions to encourage impulsive buying behavior.

Conclusion

The findings of this study offer several important insights for online businesses operating in Pakistan. First, it is crucial for businesses to focus on building consumer trust, as perceived trust was found to be a key mediator in the relationship between factors like innovative products, celebrity endorsements, and impulsive buying behavior. Enhancing customer service responsiveness and offering seasonal sales events are effective ways to improve trust and

encourage impulsive purchases. Additionally, leveraging innovative products and celebrity endorsements can further influence consumer behavior, driving more frequent and impulsive buying decisions. By integrating these strategies into their marketing approaches, businesses can foster greater consumer loyalty and improve overall sales performance in the competitive online market. Furthermore, future research could explore the role of cultural and social factors influencing impulsive buying behavior in various regions of Pakistan. Investigating other external factors, such as technological developments and payment security, could deepen the understanding of how trust is built and how it impacts consumer behavior. Longitudinal studies could provide insights into how consumer purchasing behaviors change over time, particularly in response to evolving e-commerce trends and the post-pandemic market environment. Lastly, a cross-cultural perspective on impulsive buying behaviors could offer a broader view of how these behaviors differ across global markets, providing valuable lessons for international businesses aiming to adapt their strategies for diverse consumer bases.

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