The Influence of Reference Group on Impulsive Buying Behavior with Mediating Role of Hedonic Shopping Behavior on Online Products

Arpan Shrestha

Department of Management, Rammani Multiple Campus

Abstract

Impulse buying is a spontaneous and unplanned purchasing behavior influenced by psychological, social, and environmental factors. With the rapid expansion of e-commerce, particularly in Nepal, online marketing strategies, social media influence, and reference groups have emerged as essential drivers of impulsive buying, especially in online apparel shopping. This study examines the influence of reference groups on impulsive buying behavior and inquires into the mediating role of hedonic shopping behavior within the framework of the Stimulus-Organism-Response (S-O-R) model. Using a descriptive and causal-comparative research design, data were collected from 400 respondents in Butwal Sub-Metropolitan City through a structured questionnaire. The research findings indicate that reference groups significantly influence impulsive buying, both directly and indirectly, through hedonic shopping behavior of the consumer. However, the mediating effect of hedonic shopping behavior is relatively weak, suggesting that reference groups have a more direct impact on impulsive purchasing decisions than the pleasure derived from shopping. The study contributes to consumer behavior literature by highlighting the role of reference groups in online retail environments and providing insights for online marketers to develop targeted strategies that leverage social evidence and hedonic appeal to improve sales. Additionally, this research has implications for policymakers in ensuring ethical online marketing practices.

Keywords: impulse buying, reference groups, hedonic shopping behavior, online shopping, consumer behavior

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An impulse buying refers to spontaneous purchase or unplanned shopping. Some behaviors that cause impulse purchases include seeing the same product at a very low rate which results in the impulse purchase if the product is new (well-established or sample) on the consumer. Impulse buying is characterized by spontaneous action by the shopper when exposed to a stimulus which results in unplanned buying as defined by Parboteeah (2005) and Piron (1991). Impulse buyer begins foraging once they visit a specific store although they do not have an intention to acquire such product. They are exposed to the stimuli while they are foraging, when owners trigger customers' buying desire. When an impulse buyer wants to buy something, she will simply choose to buy without looking for information or considering substitutes.

Online shopping in Nepal has witnessed a rapid growth in the last decade with emergence and penetration of portals such as Daraz, Sastodeal, Hamrobazar, Muncha, OkDam, Oldpinch.com, Socheko.com, etc. It is easier, and often quicker, than the conventional purchasing process. Research shows that various factors contribute to the tendency of impulsive buying such as convenience, discounts/ offers/ promotions, anxiety, and difficulty in managing the feelings (impulses) or buying to uplift the mood. Marketers often succeed in inducing the consumers to make unplanned purchase/ buying more items/ quantity than planned through aggressive promotional campaigns that create urgency and

advance social influence. For a significant number of the online retailers, the objective is not just to get customers or shoppers to purchase. It is getting them to purchase more. The internet retail sector is already selling products directly to customers and recommending other things on websites. A shopper can view multiple adverts on different social media platforms, and they can click on the advertisements to visit websites and get what they want. With the proliferation of ecommerce sites, there is a paradigm shift where an increasing number of people shifted from offline to online shopping (Zhao, Y., Li, Y., Wang, N. et al, 2022). Impulse buying behavior is a sudden, compulsive, and hedonistic complex buying behavior (Wang P and Chapa S, 2022). Impulsive buying represents between 40 and 80 per cent of all purchases, depending on the type of product (Aragoncillo, L. and Orus, C. 2018). The phenomenon of impulsive buying was first acknowledged as an irrational behavior in the decade of the 1940s (Luna and Quintanilla, 2000). Social media and online marketing promote products to customers based on their points of interest (POI), which can be connected to search history using a variety of technologies.

In consumer behavior research, impulse buying has drawn a lot of interest since it is impulsive and unpredictable. According to Verplanken and Sato (2011), impulsive buying is an unexpected purchase that is largely motivated by emotional and psychological considerations rather than by sound judgment. This tendency has been exacerbated by the growth of e-commerce, especially in the online apparel sector, where

customers are exposed to compelling digital marketing strategies, time-limited deals, and eye-catching product displays. Even with a wealth of studies on impulsive buying, little is known about how external social factors, particularly reference groups, affect impulsive buying of apparel in online shopping settings (Aragoncillo & Orus, 2018).

Consumer preferences and buying decisions are greatly influenced by reference groups, which include family, friends, celebrities, and social media influencers (Bearden & Etzel, 1982). Customers usually go to reference groups for fashion trends, style validation, and product recommendations when they shop for apparel online, especially when they are unsure about what to buy. Although digital marketing and social media platforms have increased their influence, little is known about how much of an impact they have on impulsive purchases in online fashion retail. Research on impulsive buying has mostly concentrated on psychological factors, ignoring the outside social influences that influence customer behavior in online shopping settings.

Hedonic shopping behavior, or the pleasure-driven reason behind buying fashion products for emotional satisfaction, enjoyment, and self-expression, is another important component affecting impulse buying in online garment shopping (Arnold & Reynolds, 2003). Due to their increased sensitivity to sensory signals, brand perception, and aesthetic appeal, consumers who engage in hedonic buying are more likely to make impulsive purchases (Hausman, 2000). However, little study has looked at whether hedonic purchasing behavior acts as a mediator between impulsive buying of apparel in e-

commerce and reference group influence. Understanding this mediating effect is essential because online fashion retail mostly depends on influencer marketing, digital interaction tactics, and visual merchandising.

There are two main research gaps that this study aims to fill. First, although previous studies have looked at the psychological aspects of impulsive buying, little is known about how reference groups affect impulsive online apparel purchases. Examining this connection can shed light on the outside societal influences influencing consumer choices in online fashion sales. Second, despite the fact that hedonic shopping has been associated with impulsive buying, it is yet unknown how it might act as a mediator between reference groups and impulsive purchase of online apparel. Customers are being exposed to inspirational lifestyles and compelling brand endorsements more frequently due to the explosive rise of social media marketing and influencer-driven fashion culture (Escalas & Bettman, 2003). Thus, this study intends to investigate (1) the direct influence of reference groups on impulsive garment purchases in online shopping and (2) whether hedonic purchasing behavior mediates this link.

By addressing these gaps, this study will add to the body of knowledge on consumer behavior and offer insightful information to e-commerce marketers and fashion merchants that want to create focused plans that use hedonic appeal and social influence to boost online sales of apparel.

This study looks at the following research questions.

(a) How do reference group influence impulsive purchase?

(b) Does Hedonic Shopping Behavior mediate in the relationship between reference group and impulsive buying?

Objective of the Study

- To examine the effect of reference groups, on impulse buying.
- To determine whether hedonic shopping behavior has mediation role in the relationship between reference groups and impulse buying behavior.

Literature Review

Impulsive Buying Behavior

Impulsive buying is the term used to describe unplanned or spontaneous purchases. When consumers encounter new products, well-known brands, or trial products at surprisingly cheap prices, they are more inclined to make impulsive purchases. Impulsive buying is defined as the result of a stimulus exposure that results in unanticipated purchasing; it involves a shopper's decision made on the moment (Parboteeah, 2005; Piron, 1991). Impulsive buyers are those that enter a store with no intention of purchasing a particular item. While foraging, they come upon stimuli that pique consumers' interest in buying. When a consumer is impulsive, she makes a purchase without considering her options or doing any research on the product. However, the consumer may encounter either positive or negative outcomes from the post-purchase

review following an impulsive purchase (Nagadeepa et al., 2015). Throughout the entire process, a number of factors influence the buyer by triggering their impulsive purchasing behavior.

According to KC and Tamang (2022), women's impulsive buying behavior in supermarkets is greatly increased by financial independence and a pleasant store environment. Impulsive buying behavior is not found to be significantly positively correlated with group influence. According to the research's findings, women's impulsive buying behavior is mostly influenced by their financial independence and the store atmosphere, whereas time availability and peer pressure have no discernible effects.

According to Sohn and Ko (2021), not all unexpected purchases may be categorized as impulsive, even though all impulse purchases can be categorized as unplanned. Unplanned purchases can happen only because a customer has to buy a product but hasn't put it on their shopping list beforehand for any reason. This implies that the acute desire that typically accompanies impulse buying is not always present in unplanned purchases

Sulaiman et al. (2020) claim that the association between important elements (including price, visual merchandising, bank card payments, sales promotions, and online reviews) and online impulse buying is not moderated by hedonic shopping behavior. This implies that although these elements have an effect on impulsive buying, hedonic shopping has a negligible role in controlling these effects.

According to Zulfiqar et al. (2018), a variety of factors related to impulsive buying have been investigated, and the most frequently found outcome variables are demographics, situational factors, product factors, advertising, social factors, sales promotion, and online factors. Since impulse buying is a significant phenomenon for both academic research and real-world marketing applications, the study highlights the need for additional research into additional factors influencing this behavior in various circumstances. The goal of the research is to help marketing managers rethink their marketing strategies in order to maximize profits by increasing sales volumes and market shares.

As demonstrated by Rahman, (2015:37) "the mass distribution in supermarket/hypermarket and self-service outlet with mass sales promotion and point of sale materials, display, and store location," marketing has an impact on unforeseen acquisition.

According to Foroughi et al. (2013), gender has no effect on how hedonic shopping affects the impulse for impulsive buying, and hedonic shopping has a positive effect on impulsive buying because of situational and individual variables.

According to Yang, Huang, and Feng (2011), impulsive buying is a consumer's tendency to buy spontaneously, unreflectively, immediately, and kinetically.

Xiurong (2010) entails that the quantity of reference groups influences impulsive buying and is significantly influence normative appraisal. By using normative appraisal, the reference group suggestion influences impulsive purchases.

In actuality, most individuals don't give it much thought when they purchase unnecessary items, even if they believe they might need them, or even when they go shopping on a whim due to a sales promotion. An "impulse buy" is defined as "an unplanned purchase of anything that a customer did not intend to buy before entering the store" (Nooshbadi 2002:1).

Reference group

The term "reference group" refers to any group that has the ability to directly or indirectly affect someone's attitude or conduct in either the same or different directions. Families, friends, classmates, and neighbors are the most frequently cited reference groups in consumer behavior research (Shrestha, 2024). Reference groups will have an effect on an individual's conduct (Xiurong & Chenglei, 2010). According to the theory of social comparison, people have basic requirements for self-evaluation. People utilize comparison with their social base as an evaluation criterion if they lack objective standards to evaluate their own attitudes and behaviors (Park & Lessig, 1977). Furthermore, while selecting a social base, people frequently go for a peer who is very similar to them. Consequently, the consumer's normative assessment of his purchasing behavior undoubtedly has an impact on his buying behavior when he buys with the group (Xiurong & Chenglei, 2010). In

addition, the number of reference groups and the normative evaluation differ, as does the pressure from social norms that consumers experience. Impulsive buying tends to make people feel more negative, thus the more reference groups there are, the more likely it is that customers may adopt other people's opinions and ideas or take on a social position that has been assigned to them.

When it comes to consumption, people utilize other people's advice as a benchmark (Goldberg & Groenewald, 2022). With them, customers can discover how their thoughts differ and how they are similar to those of others, and they can use the comparison as one of the references for their ultimate purchase (Balaji & Babu, 2015). Additionally, in the context of consumption, the advice given by shopping partners not only serves as a benchmark for consumers participating in social comparison activities, but it also has the ability to regulate consumers' perceptions of risk, decrease situational ambiguity, and assist consumers in assessing the suitability of their purchases (ALsahil & Ahmed, 2020). However, the likelihood of seeking out and relying on the counsel of others increases with the degree of context uncertainty and risk associated with impulsive buying decisions. Therefore, the advice to encourage or discourage others from engaging in impulsive buying behavior is either promoted or restrained (Chauhan et al., 2021).

Hedonic shopping Behavior

According to Arnold and Reynolds (2003), hedonic shopping value is a strong indicator of impulsive buying behavior because the emotional and sensory rewards of

shopping might lead to impulsive buying. Hedonistic shoppers are more prone to impulsive buying because they place a higher value on the enjoyment, joy and thrill of the shopping experience (Juharsah, 2020).

By decreasing cognitive deliberation and raising the need for instant reward, the emotional arousal associated with hedonic buying encourages impulsive buying (Rook & Fisher, 1995). This connection is particularly noticeable in digital settings, where social pressure and the quick spread of information can lead to impulsive buying (Chauhan et al., 2021). Research indicates that when exposed to stimuli marketing and social validation, consumers who are looking for hedonic value are more likely to make impulsive buying (Ramadania et al., 2022).

According to Hirschman and Hoolbrock (2009), Hedonistic buyers contain behavioral elements that is associated with multisensory, imaginative, and affective consuming that produce advantages including product enjoyment and aesthetic approaches. The hedonist level was broken down into six dimensions by Arnold and Reynolds (2003): (1) adventure shopping that results in purchases; (2) social shopping that creates a sense of community among customers, friends, or other guests; (3) shopping gratification, which is a particular emotion, such as happiness due to a successful presentation or depression due to certain issues; (4) purchase recommendations that encourage one to investigate the latest fashions, styles, and technological advancements of the moment; (5) role shopping, which is the desire to buy things for other people; and (6)

value shopping, which results in a purchase that is prompted by product specials or aggressive advertising.

Theoretical Framework and Hypothesis Development

This study focuses the Stimulus-Organism-Response (S-O-R) model, which was first researched by Mehrabian and Russell (1974), to explain how reference groups affect impulsive buying behavior by using hedonic shopping behavior as a mediating variable. The S-O-R model states that an individual's internal organism (O), which in turn influences behavioral responses (R), is influenced by external stimuli (S). In this study, reference groups are the external stimuli (S) hedonic shopping motivation is organism (O) and impulsive buying is the behavioral response (R).

By influencing norms, values, and buying decisions, reference groups have a big effect on consumer behavior (Goldberg & Groenewald, 2022). Consumers may make impulsive buying to uphold social conformity or improve their reputation when they identify with a reference group (Escalas & Bettman, 2003). Moreover, hedonic buying environments, where the emotional and experiential components of consumption become essential, increases the influence of reference groups on impulsive buying (Arnold & Reynolds, 2003). This relation implies that the influence of reference groups on impulsive buying is mediated by hedonic shopping motivation. With social media encouraging real-time sharing and reiterating social norms, the emergence of digital platforms has increased

the influence and reach of reference groups on impulsive buying (Chang, Eckman, & Yan, 2011).

The following theories are adoption of the S-O-R model and the part of available literatures:

H_1: Impulsive buying behavior is significantly influenced by reference groups.

H_2: Hedonistic shopping behavior is significantly influenced by reference groups.

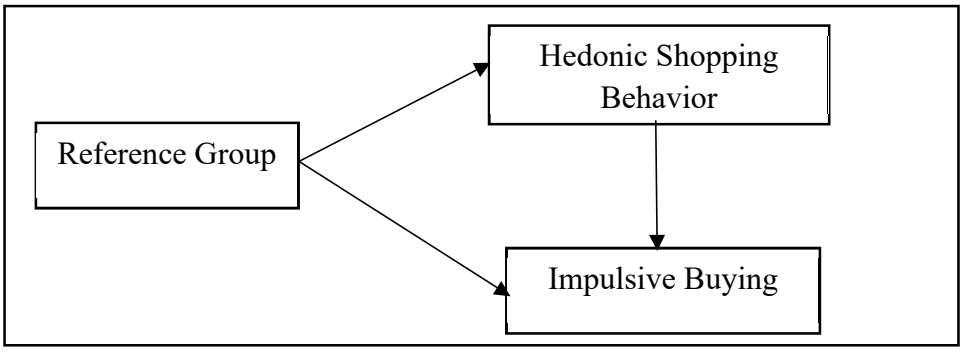
H_3: Impulsive buying behavior is significantly influenced by hedonic shopping behavior.

H_4: The relationship between reference groups and impulsive buying behavior is mediated by hedonic shopping behavior.

By putting these theories to the test, this study seeks to offer an understanding of how reference groups, motivate impulsive purchasing via the S-O-R model.

Figure 1

Conceptual framework



Source: The author

Research Methodology

Research Design

This study employs a descriptive and causal-comparative research design. The descriptive design is used to analyze and gather the characteristics of reference groups, hedonic shopping behavior, and impulse buying behavior in online shopping of apparel. This approach is enabling a comprehensive understanding of the relationships among these factors. The causal-comparative method helps determine if variations in reference group influences and hedonic shopping preferences are linked to variations in impulse buying behavior. Data are collected through surveys of online customers who are involved in the impulsive purchase of apparel, and statistical analysis will be carried out to examine direct and mediated effect in order to guarantee a sound and empirical assessment of the research hypotheses.

Population and Sample

The study's population consisted of impulsive buyers of apparel in online stores, from Butwal sub-metropolitan city. Purposive sampling is the sampling method used to select the study's respondents. The sample includes people from the age of eighteen who make impulsive purchase. The sample is diverse in terms of gender, age, income, marital status, and education.

Data Collection, Measurement, and Scaling

This study uses a systematic questionnaire to collect primary data. The number of samples is 400. According to Pradhan (2016), 400 respondents in all filled out the questionnaire using a self-administered method. To meet the goals of the study, the questionnaire is thoroughly planned, created, and pre-tested.

The survey questionnaire was modified from the research by Beatty and Ferrell (1998), in which participants used a five-point Likert scale to assess each variable. A 100% response rate is guaranteed by the self-administered approach. Respondents are informed on the goal of the study, the significance of the questions, and the process for responding them before they begin filling out the questionnaire.

The variables are measured using a modified version of the five-point Likert scale developed by Beatty and Ferrell (1998), and included customers' reference groups, hedonic-shopping behavior, and impulsive buying behavior.

Validity and Reliability

The reliability and validity of the constructs in this study are evaluated using Cronbach's alpha, composite reliability, average variance extracted (AVE) and Heterotrait-monotrait ratio (HTMT). These measures assess the internal consistency, overall reliability, convergent validity and discriminant validity of the constructs, respectively, as recommended by Hair et al. (2017).

Table 1

Construct Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
RG	0.907	0.915	0.904	0.578
HSV	0.951	0.957	0.95	0.762
IB	0.911	0.915	0.911	0.673

Source: Questionnaire survey 2024/25

The table 1 presents the results of the construct reliability and validity analysis for three variables: Hedonic Shopping Behavior (HSV), Impulsive Buying (IB), and Reference Group (RG). The main indicators used to assess reliability and validity include Cronbach's alpha, composite reliability (rho_a and rho_c), and the average variance extracted (AVE).

Reliability Analysis

Cronbach's alpha values for all three constructs exceed the recommended doorstep of 0.7 (Chauhan et al., 2021), indicating a high level of internal consistency. Specifically, HSV has the highest Cronbach's alpha value of 0.951, suggesting excellent reliability. IB and RG also demonstrate strong reliability, with values of 0.911 and 0.907, respectively. These results indicate that the measurement items for each construct are consistent and produce reliable outcomes.

Composite Reliability

Both forms of composite reliability (rho_a and rho_c) also exceed the acceptable doorstep of 0.7 across all constructs, confirming the constructs' internal consistency and reliability (Chauhan et al., 2021). For HSV, the composite reliability values are 0.957 (rho_a) and 0.95 (rho_c), while IB reports 0.915 and 0.911, and RG shows 0.915 and 0.904, respectively. These findings reinforce the notion that the items within each construct are highly correlated and consistently measure the underlying concept.

Validity Analysis

The Average Variance Extracted (AVE) values for each construct are also provided to assess convergent validity. According to the generally accepted criterion, AVE values should be above 0.5 to indicate that the construct explains more than half of the variance in its indicators (Chauhan et al., 2021). All three constructs meet this criterion, with HSV having the highest AVE at 0.762, followed by IB at 0.673, and RG at 0.578. These values indicate that the majority of the variance in the observed variables is explained by their respective latent constructs, confirming adequate convergent validity.

Overall, the results demonstrate strong evidence of both reliability and validity for the three constructs in the study. The high Cronbach's alpha and composite reliability values confirm internal consistency, while the AVE values indicate sufficient convergent validity (Chauhan et al., 2021). This suggests that the measurement model is strong and

suitable for further analysis of the relationships between hedonic shopping value, impulsive buying, and reference group influence.

Discriminant Validity Analysis

Table 2

Discriminant Validity

	Heterotrait-monotrait ratio (HTMT)
IB <-> HSV	0.364
RG <-> HSV	0.17
RG <-> IB	0.382

Source: Questionnaire survey 2024/25

The table 2 shows the results of the discriminant validity analysis using the Heterotrait-Monotrait ratio (HTMT) for three constructs i.e., Reference Group (RG), Hedonic Shopping Behavior (HSV), and Impulsive Buying (IB). The HTMT ratio is a recommended criterion for evaluating discriminant validity, where values below 0.85 indicate that the constructs are sufficiently different from each other (Hair et al., 2020).

IB and HSV Relationship

The HTMT value between Impulsive Buying (IB) and Hedonic Shopping Value (HSV) is 0.364, which is well below the recommended level of 0.85. This indicates that these two constructs are empirically distinct, meaning that the measures of impulsive buying behavior are clearly different from those of hedonic shopping value. This low HTMT value supports the presence of discriminant validity between these constructs.

RG and HSV Relationship

The HTMT value between Reference Group (RG) and Hedonic Shopping Value (HSV) is 0.17, which is also significantly below 0.85. This suggests a clear distinction between the influence of reference groups and hedonic shopping behavior. The low value indicates that respondents perceive these as separate constructs, further confirming discriminant validity.

RG and IB Relationship

The HTMT value between Reference Group (RG) and Impulsive Buying (IB) is 0.382, which remains well within the acceptable range that is below o.85. This implies that the influence of reference groups on consumers is distinct from their impulsive buying tendencies. The moderate but acceptable value suggests that while these constructs are related, they measure different aspects of consumer behavior.

The HTMT values for all construct pairs are significantly below the level of 0.85, which provides strong evidence for discriminant validity (Chauhan et al., 2021). This confirms that hedonic shopping value, impulsive buying, and reference group influence are clearly separate constructs that do not overlap conceptually or empirically. These results validate the measurement model, ensuring that each construct captures a unique dimension of consumer behavior.

Results and Discussion

Results

The path of coefficient analysis shows the strong conceptual and theoretical correlation between all of the experimental results on the input and output sides of both frameworks (Chauhan et al., 2021). Additionally, the structural model was used to indicate one or more probable links, as predicted in the model determination (Hair et al., 2020). In order to determine the p-values for any significant associations, the consistent bootstrapping approach has been applied through 5000 undetermined bootstraps (Hair et al., 2020).

Table 3 presents the results of the path coefficient analysis, which evaluates significant relationships between the constructs: Reference Group (RG), Impulsive Buying (IB), and Hedonic Shopping Value (HSV).

Table 3

Path Coefficient

Hypothesis		Original sample (O)	Sample mean (M)	Standard deviation	T statistics	P values
H_1	RG -> IB	0.332	0.332	0.064	5.215	0
H_2	RG -> HSV	0.177	0.181	0.053	3.331	0.001
H_3	HSV -> IB	0.309	0.308	0.052	5.899	0

Source: Questionnaire Survey 2024/25

This analysis includes the original sample (O), sample mean (M), standard deviation (SD), T statistics, and P values for three hypothesized relationships (H_1, H_2, and H_3). A path coefficient closer to +1 or -1 indicates a stronger relationship, while T statistics greater than 1.96 and P values below 0.05 indicates statistical significance at a 95% confidence level (Hair et al., 2020).

H_1: Reference Group (RG) → Impulsive Buying (IB)

The path coefficient for H_1 is 0.332, which indicates a moderate positive relationship between reference group influence and impulsive buying behavior. The T statistic is 5.215 which exceeds the critical value of 1.96, and the P value is 0.000, which is statistically significant at the 0.01 level. This suggests that as the influence of reference groups increase, consumers are more likely to be involved in impulsive buying. The findings confirm H_1, supporting the idea that peer influence plays a important role in controlling impulsive purchasing behavior among consumers.

H2: Reference Group (RG) → Hedonic Shopping Value (HSV)

The path coefficient for H_2 is 0.177, which indicates a weak to moderate positive relationship between the influence of reference group and hedonic shopping value. The T-statistic and P-value is 3.331 and 0.001 respectively, shows the relationship is statistically significant at the 0.01 level and this indicates that reference groups contribute to the enjoyment and pleasure is obtained from shopping. The positive and significant

relationship supports H_2, implying that consumers influenced by their peer groups are more likely to be involved in shopping for fun and emotional satisfaction.

H3: Hedonic Shopping Value (HSV) → Impulsive Buying (IB)

The path coefficient for H_3 is 0.309, which indicates a moderate positive relationship between hedonic shopping value and impulsive buying behavior. The T statistic is 5.899, which is highly significant, with a P value of 0.000. This confirms that consumers who derive pleasure from shopping are more likely to make impulsive purchases. The findings strongly support H_3, suggesting that the emotional enjoyment of shopping directly influences impulsive buying behaviors of the consumers.

The path coefficient analysis confirms that reference group influence significantly affects both impulsive buying behavior and hedonic shopping value. Additionally, hedonic shopping value plays a significant role in promoting impulsive buying behavior. All three hypotheses (H_1, H_2, H_3) are supported by the data, indicating that both reference groups and hedonic shopping behavior from shopping are key drivers of impulsive buying behavior. This suggests that marketers should consider peer groups influence and hedonic shopping experiences when developing strategies to increase impulsive buying.

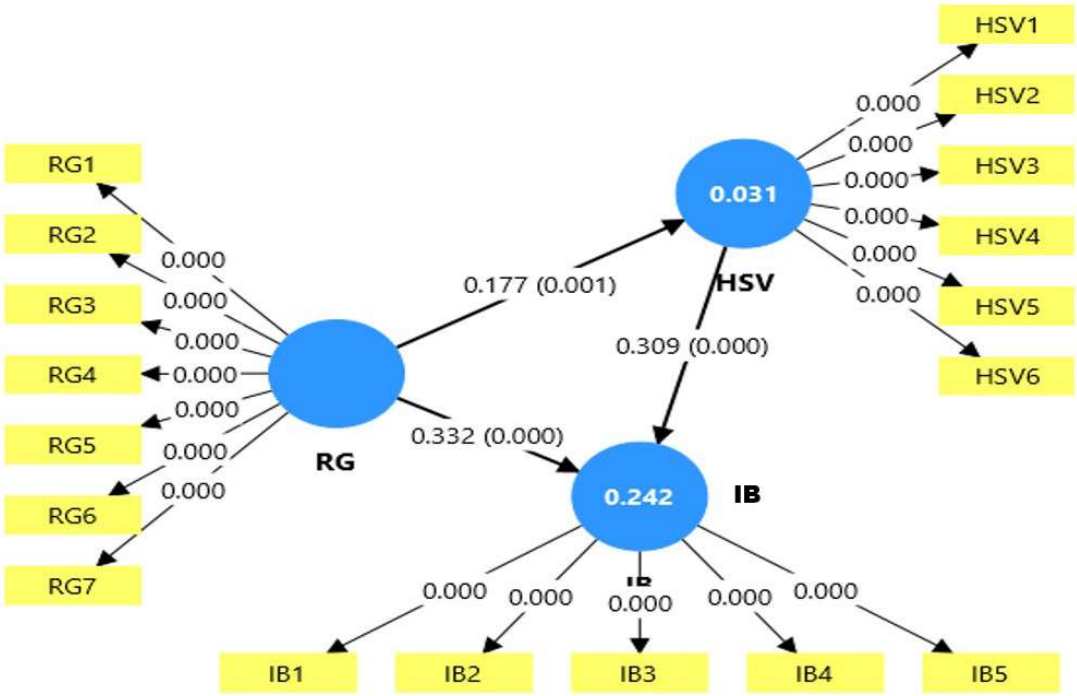
Mediation Analysis

This study used variance accounted for (VAF) to examine the direct effect (DE) and indirect effect (IDE) variables. The study surveyed by Preacher & Hayes (2008) was used to quantify the mediation effect, and the bootstrapping technique was employed for

the IDE of the mediating variable on the model (Hair et al., 2020). By assessing the direct influence of the independent variable (RG) on the dependent variable (IB) in the absence of the mediating variable and then including the mediating variable HSV in between, the mediating effect was examined.

Figure 2

Structural Model Assessments



Source: SmartPLS 4.0

Using a consistent bootstrapping process with 400 observations per sub-set, for a total of 5,000 sub samples, the direct effect result was produced from PLS-SEM with no

noticeable variations, as recommended by Hair et al. (2017). The path coefficient and t-value are found using the PLS-SEM bootstrapping process.

The structural model of the figure indicates the relationships between the independent variable (Reference Group (RG)), the mediating variable (Hedonic Shopping Value (HSV)), and the dependent variable (Impulsive Buying Behavior (IB)). The model also shows the path coefficients which provide direct and indirect effects of interactions of these constructs.

Each dependent variable's explained variance is shown by the R^2 values in the blue circles. The combined effects of the Reference Group (RG) and Hedonic Shopping Value (HSV) account for 24.2% of the variance in impulsive buying, according to the R^2 value for Impulsive Buying Behavior (IB), which is 0.242. The reference group accounts for 3.1% of the variance in hedonic purchasing behavior, according to the Hedonic purchasing Value (HSV) R^2 of 0.031, demonstrating a poor predictive capacity.

The strength of the mediation structure is tested after checking the significance of the direct and indirect effects. This evaluation method can be performed using the VAF (Hair et al., 2017) and can be calculated with the following formula:

$$VAF = \frac{Indirect\ effect}{Total\ effect} = \frac{a \times b}{a \times b + c}$$

Table 4

Mediation Measurement

Hypothesis	Construct	Effect	HSV	IB	VAF	Decision
H_4	RG	DE		0.332	0.142	ME
		IDE	0.177	0.309		0.20<VAF<0.80
		TE	0.055			
		Note	No Mediation			

Source: Questionnaire survey 2024/25

Note: DE: direct effect, IDE: indirect effect, TE: total effect, ME: Mediation effect, PME: Partial Mediation Effect.

The mediation analysis assesses the role of Hedonic Shopping Value (HSV) as a mediator between Reference Group (RG) and Impulsive Buying Behavior (IB) by analyzing the direct effect (DE), indirect effect (IDE), and total effect (TE), along with the Variance Accounted For (VAF). The direct effect (DE) of Reference Group on Impulsive Buying Behavior is 0.332, which indicates a moderate and positive relationship. This suggests that as the influence of reference groups increases, the likelihood of impulsive buying also increases. The indirect effect (IDE) of Reference Group on Impulsive Buying Behavior through Hedonic Shopping Value is 0.055, meaning that a small portion of the influence of reference groups is transmitted through hedonic shopping experiences.

The total effect (TE), which represents the combined impact of the direct and indirect effects, is 0.387. To determine the extent of mediation, the VAF value is calculated using the formula:

$$VAF = \frac{\text{Indirect Effect}}{\text{Total Effect}} = \frac{0.055}{0.387} = 0.142\,(14.2\%)$$

According to Hair et al. (2021), if VAF < 20%, there is no mediation; if 20% ≤ VAF ≤ 80%, there is partial mediation; and if VAF > 80%, there is full mediation. Since the VAF value is 14.2%, it falls below the 0.2 (20%) level, which indicates that Hedonic Shopping Value does not mediate the relationship between Reference Group and Impulsive Buying Behavior.

These results suggest that the Reference Group has a direct and significant impact on Impulsive Buying Behavior, and Hedonic Shopping Value does not play a meaningful mediating role in this relationship. In practical terms, this means that reference group, such as peer pressure or group norms, directly influence impulsive buying behavior rather than working through the hedonic shopping behavior. Marketers should focus on enhancing social influence strategies like peer recommendations or group-targeted marketing, as the hedonic shopping experience does not significantly mediate this effect.

Discussion

According to the study's findings, Reference Groups (RG) have a direct and indirect influence on Impulsive Buying Behavior (IB) through Hedonic Shopping Value (HSV). When influenced by their reference groups, people are more likely to make impulsive purchases, according to the moderate and positive direct effect (DE) of RG on IB (0.332).

This finding is consistent with earlier research that emphasizes the important role that reference groups play in determining consumer behavior (e.g., Beatty & Ferrell, 1998; Hair et al., 2021). Consumer decision-making is greatly impacted by the existence of a reference group, which supports the idea that consumers are more likely to make rash decisions when they are subjected to peer pressure, group norms, or social comparisons.

HSV has a minimal mediating role in this interaction, despite the significant correlation between RG and IB. In comparison to the direct effect, the indirect effect (IDE) of RG on IB through HSV is 0.055, which is rather small. The Variance Accounted For (VAF) computation yields a value of 14.2%, below the 20% level needed to prove mediation, and the total effect (TE) is 0.387 (Hair et al., 2020). This implies that HSV does not significantly mediate the relationship between RG and IB, in accordance with the mediation analysis approach. As a result, reference groups have a more direct impact on impulsive purchasing than they do through the fun or pleasure that comes from shopping. HSV's poor mediation effect indicates that although hedonic shopping experiences influence impulsive buying behavior (HSV to IB path coefficient = 0.309), the influence of reference groups is not considerably transmitted by them. Impulsive purchasing behavior is largely impacted by the reference group's influence directly, negating the requirement for a middleman mechanism like hedonic shopping satisfaction. This result is in line with earlier research that emphasizes how social impact shapes impulsive buying inclinations more so than fundamental shopping reasons (Hair et al., 2017).

Conversely, HSV's low predictive capacity ($R^2 = 0.027$) emphasizes its limited ability to mediate the link between RG and IB. This result implies that reference groups' influence on impulsive purchasing cannot be adequately explained by the hedonic benefit of shopping. Even though pleasurable shopping experiences do promote impulsive purchases, social influence does not primarily work through them. Instead, then drawing impulsive inclinations from hedonic shopping reasons, consumers might be more receptive to direct social cues, such as peer behavior and group expectations.

Implications

This study has significant implications for marketing strategies, online shopping business models, and consumer behavior research, both theoretically and practically. It advances understanding of the psychological and social factors influencing consumer decision-making in online apparel shopping by examining the influence of reference groups on impulsive buying behavior and the mediating role of hedonic shopping.

Theoretically, this research contributes to consumer behavior literature by providing empirical evidence on how social factors, particularly reference groups, influence impulsive purchases in digital environments—shifting the focus from individual psychological factors. It also enhances theoretical models by exploring hedonic shopping behavior as a mediator, offering insights into how emotional gratification and social influence shape impulse buying.

Practically, the findings benefit digital marketers and e-commerce platforms by highlighting the effectiveness of peer recommendations, influencer endorsements, and customer reviews in stimulating impulse buying. Enhancing shopping experiences with engaging content, appealing design, and personalized suggestions supports hedonic motivations, boosting consumer engagement, sales, and retention.

This study also holds value for consumer advocacy and policymaking by emphasizing the need for ethical standards and transparent practices in digital marketing. Overall, it offers valuable insights for scholars, marketers, online retailers, and policymakers seeking to understand and respond to evolving digital consumer behaviors.

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