Exploring Store Environment and Impulse Buying: A Serial Mediation Model

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Abstract: *This study investigates how perceptions of store environment influence emotional responses, impulsive urges, and impulse buying behaviour in apparel retail sector. Using mall intercept approach, data was collected, resulting in a final sample size of 612 respondents. To analyse the data, Smart PLS SEM (4.0) was employed. The findings reveal that Urge to Buy Impulsively and Positive affect serially mediate the relationship between Store Environment Perception and Impulse Buying Behaviour. It reveals that a welcoming store atmosphere not only enhances shoppers' moods but also increases their inclination towards spontaneous purchases. Retailers can leverage these insights to strategically enhance store environments, optimizing layout, lighting, and ambiance to create emotionally engaging shopping experiences that encourage impulsive buying behaviour. These findings offer practical implications for retailers seeking to enhance sales and customer satisfaction through effective store environment design. By understanding the interplay between store environment and impulse buying, retailers can develop more effective marketing strategies, leading to improved business performance and a stronger competitive position in the market.*

Keywords*: apparel retail, impulse buying behaviour, positive affect, serial mediation, store environment perception, PLS SEM, UTBI*

Introduction

Impulsive buying behaviour, characterized by sudden, unplanned purchases driven by momentary urges and emotions, serves a pivotal role in shopper's decision-making within the retail environment (Rook, 1987). This behaviour is driven by emotional triggers rather than deliberate decision-making. Unlike planned buying, impulse purchases are marked by the absence of any prior intentions and are typically made in the moment. During impulse buying, individuals often overlook the consequences of their purchase decisions. Retailers have long recognized the significance of understanding and leveraging impulsive buying tendencies to drive sales and enhance profitability. Among the myriad factors influencing impulsive buying, the store environment emerges as a critical determinant, shaping consumers' emotional experiences and purchase decisions (Chebat et al., 2018). Store Environment refers to the overall ambiance, and physical characteristics of a retail space, such as its music, layout, lighting, décor, etc. This

environment significantly moulds customer experiences and behaviours. A well-considered store design can create a welcoming and engaging atmosphere, encouraging shoppers to stay longer and make impulse purchases. Element like visually appealing displays, pleasant scents, and strategic product placement can trigger emotional and sensory responses, leading to spontaneous buying (Spies et al., 1997). By thoughtfully managing these aspects, retailers can enhance the shopping experience and promote unplanned purchases, ultimately driving increased sales. In the realm of apparel retail, where aesthetics, ambiance, and sensory stimuli are abundant, the role of store environment in facilitating or inhibiting impulsive buying warrants thorough investigation. This study aims to unravel the intricate dynamics underlying impulsive purchase within context of apparel retail, specifically focusing on the mediating roles of Urge to Buy Impulsively (UTBI) and Positive Affect. The allure of shopping ambience lies in its ability to evoke emotions, stimulate senses, and create immersive shopping experiences (Dennis et al., 2019). Pleasant aesthetics, captivating displays, ambient lighting, soothing music, and pleasant fragrances are among the myriad elements strategically designed to elicit positive emotions and foster a supportive atmosphere for impulsive purchases. Conversely, factors such as clutter, congestion, poor lighting, and uninviting atmospheres may deter impulsive buying behaviour, undermining the retailer's efforts to capitalize on spontaneous purchases. UTBI involves a sudden and often emotional desire to make a purchase without prior planning. This internal motivation can be sparked by various elements in the shopping environment, such as compelling displays or enticing promotions. When shoppers experience these stimuli, they often make unplanned purchase which is driven by excitement rather than necessity (Dholakia, 2000). The urge is a key component of impulsive purchase behaviour, which includes the broader pattern of making spontaneous purchases. UTBI is a behavioural state characterized by an intense desire or compulsion to make unplanned purchases (Rook, 1987). The urge often arises in reply to situational cues, such as enticing product displays, limited-time offers, or peer influence, triggering an impulsive response that overrides rational decision-making processes. People experiencing this urge may feel compelled to buy something quickly, often resulting in spontaneous purchases. Positive affect involves experiencing emotions such as delight, excitement, and satisfaction. This emotional state can significantly impact consumer behaviour by making shoppers more likely to explore options, spend more time shopping, and be more receptive to promotional stimuli. Positive affect, encompassing emotions such as happiness, excitement, and satisfaction, plays a pivotal role in shaping consumers' propensity for impulsive buying (Babin et al., 1994). A positive store environment can evoke pleasurable emotions, heighten arousal levels, and amplify the perceived value of products, thereby boosting the prospects of impulse buying (Amos et al., 2014). Conversely, negative affective states, such as stress, anxiety, or dissatisfaction, may hinder impulsive buying behaviour, prompting consumers to exercise restraint and deliberation in their decision to buy. The present research aspires to elucidate the nuanced interplay between store environment, UTBI, positive affect, and impulse buying within the scope of apparel retail. By elucidating the underlying mechanisms and pathways through which store environment influences impulsive buying, this research seeks to provide invaluable insights for academia and practitioners, enabling retailers to strategically enhance store environments, optimize sales strategies, and cultivate enhanced retail experience for consumers.

Research Questions

This paper endeavors to answer the subsequent research questions:

1. How does the perception of store atmosphere influence affective responses in customers within retail sector?
2. How does positive affect mediate the link between store environment perception and impulsive purchases?

3. How does UTBI serve as a mediator between store environment and impulsive purchases?
4. How can understanding the interplay between store atmosphere and impulse buying contribute to the development of effective marketing strategies for retailers?

Review of Literature and Hypotheses Formulation

Store Environment Perception and Positive Affect

In the realm of apparel retail, consumers' perceptions of the store environment significantly influence their positive affective experiences (Machleit & Eroglu, 2000). Factors such as ambient music, lighting, layout and the behaviour of store employees collectively contribute to shaping these perceptions. Research suggests that a congruent and pleasant store atmosphere enhances consumers' emotional responses, fostering feelings of happiness, excitement, and pleasure (Donovan & Rossiter, 1982). These studies underscore the significance of creating a pleasant and inviting retail environment to evoke positive affect in customers, thereby enhancing their emotional well-being and overall shopping experience. Furthermore, empirical findings indicate that positive affect induced by a favourable store atmosphere significantly impacts consumer decision-making and purchasing behaviour (Yalch & Spangenberg, 2000; Dube & Morin, 2001; Machleit et al., 2000

H1: Store Environment Perception positively influences Positive Affect.

Store Environment Perception and UTBI

Studies investigating the link between perception of store atmosphere and UTBI emphasize the profound impact of environmental cues on consumer behaviour (Spangenberg et al., 2006; 1982; Bitner, 1992). Different aspects of retail environment, for instance, layout, ambiance, music, scent, and visual aesthetics, can evoke emotional responses and influence consumers' impulsive buying tendencies (Turley & Milliman, 2000; Yalch & Spangenberg, 2000; Dube & Morin, 2001). For instance, a pleasant and stimulating retail setting has been proven to heighten positive affect and arousal, thereby increasing the likelihood of impulsive purchase decisions (Machleit et al., 2000; Turley & Milliman, 2000). Consumers may experience a sense of excitement, pleasure, or urgency triggered by environmental stimuli, leading to spontaneous and unplanned buying behaviours (Donovan & Rossiter, 1982).

Moreover, empirical evidence suggests that specific environmental cues can directly influence UTBI by activating consumers' emotions and desires (Yalch & Spangenberg, 2000; Spangenberg et al., 2006). For example, the strategic placement of promotional displays, product demonstrations, and limited-time offers within the store environment can create a sense of urgency and scarcity, prompting impulsive buying responses (Dube & Morin, 2001; Machleit et al., 2000). Additionally, factors such as store aesthetics, music, and ambient scent have been linked to increased arousal and excitement, fostering impulsive purchase tendencies (Donovan & Rossiter, 1982; Bitner, 1992).

H2: Store Environment Perception positive influences UTBI

Store Environment Perception and Impulsive Buying Behaviour

Within the domain of apparel retail, the allure of positive store environment perceptions, including atmospheric elements like music, lighting, and layout, weaves a compelling narrative (Hui, Dube, & Chebat, 1997). These captivating atmospheres artfully coax impulsive buying behaviour from consumers, enticing them into spontaneous purchases within the vibrant tapestry of the store environment.

The connection between retail environment perception and impulsive purchase behaviour has been a subject of considerable interest among researchers exploring the complex interplay of environmental cues and consumer decision-making processes (Turley & Milliman, 2000; Donovan & Rossiter, 1982). Store atmospherics, encompassing factors such as scent, music, lighting, and spatial layout, is central in crafting

consumers' emotional responses and affective states during the shopping experience (Dube & Morin, 2001). For instance, a pleasant and inviting store ambiance can evoke positive emotions and increase consumers' inclination towards impulsive purchases. Conversely, factors like overcrowding, clutter, or uncomfortable temperatures may create negative affective states, diminishing consumers' propensity for impulse buying (Yalch & Spangenberg, 2000). Shoppers are more predisposed to make spontaneous purchases if they find the retail environment enjoyable and conducive to a positive mood. (Wakefield & Baker, 1998)

H3: Store Environment Perception positively influences Impulse Buying Behaviour

Positive Affect and UTBI

Positive affect, evoked by the retail atmosphere, exerts a profound influence on consumers' UTBI within the apparel retail sphere (Babin & Attaway, 2000). Elevated feelings of happiness and excitement amplify impulsive urges, compelling consumers to engage in spontaneous purchases driven by the emotive resonance of the retail environment.

Positive affect, characterized by feelings of happiness, excitement, and enthusiasm, is a crucial factor influencing UTBI (Ramanathan& Menon, 2006). When people feel positive emotions, such as joy or excitement, their overall mood improves, making them more receptive to external stimuli and less likely to critically evaluate their purchase decisions. Studies have consistently shown that individuals experiencing positive emotions are more prone to pursue impulsive purchase behaviour, driven by the desire to prolong or amplify their positive mood states (Verplanken & Sato, 2011).

H4: Positive Affect positively influences UTBI

Positive Affect and Impulsive Buying Behaviour

Positive affect, fostered by the store environment, significantly shapes impulsive purchase behaviour in retail sector (Youn & Faber, 2000). Elevated emotions of joy and excitement fuel impulsive tendencies, prompting consumers to make spontaneous purchases driven by the pleasurable experiences induced by the positive atmosphere of the retail setting.

Positive affect, characterized by feelings of happiness, excitement, and enthusiasm, has been consistently linked to impulsive purchase behaviour (Verplanken & Sato, 2011). Individuals experiencing positive emotions are more inclined to make spontaneous purchases, driven by the desire to maintain or enhance their positive mood states (Sengupta & Zhou, 2007). Furthermore, positive affect has been found to directly influence impulsive buying behaviour, with individuals in a positive mood state demonstrating a higher propensity to make unplanned and spontaneous purchase decisions (Sengupta & Zhou, 2007). For instance, research suggests that exposure to uplifting stimuli, such as cheerful music or pleasant scents, can evoke positive emotions in consumers, leading to increased impulsivity in purchase behaviour (Sengupta & Zhou, 2007; Rook, 1987).

H5: Positive Affect positively influences Impulsive Buying Behaviour

UTBI and Impulsive Buying Behaviour

UTBI is a key determinant in shaping impulsive purchase behaviour within the apparel retail context (Rook & Gardner, 1993). Strong impulses, which are driven by internal desires and external stimuli in the store environment, lead consumers to engage in spontaneous purchases, ultimately influencing their overall impulsive buying behaviour. UTBI, often characterized by spontaneous and irresistible craving to make unplanned purchases, is intricately linked to impulse buying behaviour in consumer psychology literature (Verplanken & Herabadi, 2001; Sengupta & Zhou, 2007).

Research suggests that intensity of UTBI serves as a key antecedent of subsequent impulsive purchase decisions (Verplanken & Herabadi, 2001). Individuals experiencing strong urges to buy impulsively tend to engage in spontaneous

purchase behaviours, driven by the immediate gratification associated with satisfying their desires (Sengupta & Zhou, 2007). Moreover, the UTBI often precedes and triggers impulsive purchase behaviour, indicating its pivotal role in shaping consumer decision-making processes (Verplanken & Herabadi, 2001).

H6: UTBI positively influences Impulsive Buying Behaviour

Mediating Role of Positive Affect and UTBI

Within the framework of apparel retail, positive affect and UTBI serve as intertwined mediators in the phenomenon of impulse buying behaviour. Elevated positive emotions induced by the store environment amplify impulsive urges, prompting consumers to engage in spontaneous purchases. Conversely, impulsive urges, fuelled by internal desires and external stimuli, intensify positive affect, creating a cyclical relationship that underpins impulsive buying behaviour within the retail landscape. Positive affect acts as a crucial mediator between store environment perception and impulsive buying behaviour within apparel retail (Dube & Morin, 2001). A pleasant store atmosphere induces positive emotions, heightening impulsive tendencies and prompting spontaneous purchases. Thus, positive affect serves as the intermediary link that translates environmental perceptions into impulsive buying actions.

Through the mediation of Positive affect, Store Environment Perception has the potential to drive impulsive purchases. Store atmospherics, comprising various sensory cues such as ambient scent, music, and spatial layout, can evoke positive emotions in consumers, influencing their affective states during the shopping experience (Dube & Morin, 2001). Positive affect, in turn, has been found to mediate the impact of these environmental cues on impulsive buying.When consumers perceive a retail environment positively, they experience heightened positive affect, which subsequently increases their propensity for impulsive purchases.

H7: Positive Affect Mediates the Relationship between Store Environment Perception and Impulsive Buying Behaviour

UTBI serves as a pivotal mediator between store environment perception and impulsive buying behaviour within apparel retail (Rook & Gardner, 1993). Consumers' perceptions of the store environment evoke impulsive urges, driving spontaneous purchases. Thus, UTBI is intermediary link translating environmental perceptions into impulsive buying actions.

Store atmospherics, encompassing sensory cues such as ambient scent, music, and spatial layout, can trigger UTBI in consumers, influencing their behaviour during the shopping experience (Dube & Morin, 2001). When consumers perceive a store environment positively, it heightens their urge, thereby influencing their shopping behaviour (Hashmi et al., 2020). This suggests that UTBI fulfils a crucial role in linking store environment perception to impulsive purchase behaviour,

H8: UTBI Mediates the Relationship between Store Environment Perception and Impulsive Buying Behaviour

Within domain of apparel retail, positive affect and UTBI jointly mediate the relationship between store environment perception and impulsive buying behaviour (Sohn & Choi, 2014). The positive atmosphere evokes emotions, fostering impulsive urges, which in turn prompt spontaneous purchases, illustrating the intricate interplay between environmental perceptions and consumer behaviour**.**Positive affect, stemming from a pleasant store atmosphere characterized by sensory cues like ambient scent and music, enhances consumers' UTBI during the shopping experience (Dube & Morin, 2001). As consumers perceive the store environment positively, they experience heightened positive affect, which, in turn, increases their UTBI..

H9: Positive Affect and UTBI Mediate the Relationship between Store Environment Perception and Impulsive Buying Behaviour

Relevance of the Study

The study explores the link between retail environment and spontaneous buying, providing insights for creating more engaging retail spaces and enhancing customer experience. It also highlights the importance of optimizing store design to encourage impulse buying, a significant portion of consumer purchases, especially in the apparel sector. The findings also emphasize the strategic role of store environment design in driving sales. Retailers can use these insights to tailor their marketing and store strategies in creating a unique shopping experience that attracts and retains customers.The study contributes to the growing body of work on consumer behaviour and retail management, laying the groundwork for future investigations. It also offers economic benefits, as understanding the psychological triggers behind impulsive purchase can potentially increase transaction size and profitability.

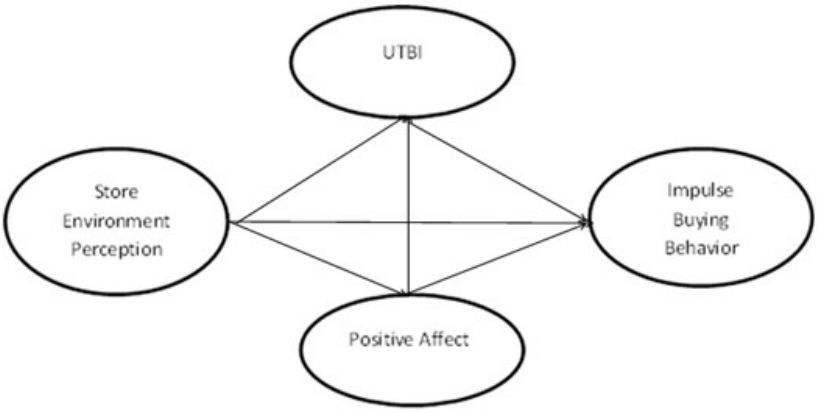

Figure 1: Conceptual Model

Research Methodology

This section outlines the approach adopted for investigating the role of store environment perception in impulsive purchase behaviour among apparel retail shoppers in Punjab's shopping malls. The study aimed to gather primary data from three Tier II cities: Amritsar, Jalandhar, and Ludhiana. The study employs a causal research design to investigate the impact of store environment perception, positive affect and urge to buy impulsively on impulse buying behaviour. This research design facilitates the formulation and testing of hypotheses regarding these relationships, in turn enabling a comprehensive analysis of the complex interactions among the constructs. Furthermore, this research design is cross-sectional in nature, allowing for the collection of data at a specific point in time, which facilitates an immediate understanding of the relationships among the constructs.

The study employed Mall Intercept Survey technique method for data collection. This technique is effective for capturing consumer behaviour in real shopping environment. This method involves engaging with shoppers as they exit the mall, allowing researcher to gather immediate feedback on their perception and behaviour related to store environment and impulse buying.

Systematic sampling method was used to collect data where every third person exiting the stores in the shopping malls of the three cities was approached for participation. This technique helps to reduce the potential bias in the selection of respondents. By ensuring that every third person is approached, this method enhances the representativeness of the sample and increases the likelihood that the findings will be generalizable to the broader population of shoppers. If a person refused to participate, the

next exiting individual was approached. Data collection occurred at various times across the day, including weekdays and weekends, to achieve sample representativeness.

In total, 655 respondents were approached, yielding a final sample size of 612 after excluding 43 questionnaires with missing or irrelevant data. The minimum sample size, calculated using G* Power software with the power of 0.95 and effect size of 0.05, was determined to be 262. This study's sample size of 612 exceeds this requirement, ensuring sufficient statistical power. (Faul et al., 2007). Additionally, following the guidelines of Hair et al., 2010, which recommend a minimum sample size between 5 to 10 times the number of statements, the required sample size for the 28 statements would range from 140 to 280, further confirming that the sample size of 612 is more than adequate for robust analysis.

The survey questionnaire encompassed various constructs relevant to the study's objectives. Store Environment Perception was assessed using an eighteen-item scale from Mohan et al., 2013. Impulse Buying Behaviour was assessed with a four-item scale from Mattilla and Wirtz, 2008. A three-item scale from Beatty and Ferrell (1998) was employed to measure UTBI, while Positive Affect was evaluated with a three-item scale from Watson et al., 1998. In total, the measurement instrument comprised of 28 items. These items were selected based on thorough review of literature, as they have been previously validated and are well established measurement instruments. Table 1 presents the constructs, their corresponding items and their factor loadings.

Table 1: Constructs and observable items

Construct	Items	Factor Loadings
Store Environment Perception (Mohan et al., 2013)	The store has pleasant music.	0.918
	Lighting in the store is pleasant.	0.754
	The store has knowledgeable employees.	0.807
	It is easy to move about in the store.	0.868
	The product assortment (variety) provided by the store offers various price ranges to choose from.	0.900
	The store has pleasant scent.	0.808
	The store has appropriate music.	0.918
	The store is well lighted.	0.771
	The store has friendly employees.	0.856
	The store has attractive display.	0.748
	The product assortment provided by the store offers a variety of different brands to choose from.	0.902
	The store has appropriate scent.	0.827
	The store has terrible music.*	0.705
	The store is correctly lighted.	0.884
	The store has helpful employees.	0.670
	It is easy to locate products in the store.	0.816
	The products in the store are logically arranged.	0.689
	The store has unpleasant scent.*	0.783
Positive Affect (Watson et al., 1998)	I felt excited on this shopping trip.	0.947
	I felt enthusiastic while shopping today.	0.939
	I felt happy during this shopping trip.	0.921
Urge to Buy Impulsively (Beatty and Ferrell,1998)	I felt many sudden urges to buy unplanned items.	0.911
	I was tempted to buy many items that were not on my list.	0.917
	I experienced no sudden urges to buy unplanned items.*	0.690
Impulse Buying Behaviour (Mattilla and Wirtz, 2008)	I ended up spending more money than I originally set out to spend.	0.959
	I bought more than what I planned to buy.	0.957
	I only bought those products I had planned.*	0.795
	I indulged in impulse buying.	0.951

Note: * Items were reverse coded.
Source: Authors' Calculation using Smart PLS

Characteristic	Details	Frequency	Percentage (%)
Gender	Male	285	46.6
	Female	327	53.4
Age (years)	18-24	185	30.2
	25-44	224	36.6
	45-64	154	25.1
	65 & above	49	8.1
Educational Qualification	Undergraduate	111	18.1
	Graduate	187	30.6
	Post Graduate	272	44.4
	Doctorate	20	3.3
	Any Other	22	3.5
Marital Status	Married	311	50.8
	Unmarried	295	48.2
	Others	6	1
Monthly Family Income (?)	Up to 50000	149	24.3
	50001-100000	249	40.7
	100001-150000	113	18.5
	150001 & above	101	16.5
Occupation	Service	159	26
	Self employed	92	15
	Business	46	7.5
	Student	195	31.9
	Retired	11	1.8
	Homemaker	90	14.7
	Farmer	5	0.8
	Any Other	14	2.3

Source: Author's Compilation from data collected

The demographic composition of the sample was carefully analyzed and summarized in Table 2. The demographic profile presents a balanced yet diverse set of participants. With 53.4% females and 46.6% males, the study offers insights from both genders almost equally. However, the age distribution leans heavily towards younger individuals, with 66.8% of respondents aged between 18 and 44 years. The sample is highly educated, with 44.4% holding post graduate degrees. The marital status is also nearly balanced, with 50.8% married and 48.2% unmarried. The monthly family income distribution indicates a diverse economic landscape, with 40.7% of respondents earning between ¹ 50,001 and ¹ 100000, highlighting a stable middle-income group. The occupation data shows that a significant proportion of respondents are students (31.9%), followed by service workers (26%) and self-employed individuals (15%). This segmentation allows for a comprehensive examination of impulse buying tendencies across different socio-economic groups within the sample.

Data Analysis and Interpretation

To analyse this research, PLS-SEM has been employed as the primary analytical tool to investigate the relationship between various constructs. PLS-SEM is optimal for examining complex relationships among latent variables, making it well-suited for this research objective (Hair et al., 2017). The initial stage of the analysis involves establishing the measurement model, where the relationships between the observed

indicators and latent constructs are assessed. This process enables the evaluation of the reliability and validity of the items of questionnaire used in study (Henseler et al., 2016). Through measurement model, the extent to which these indicators accurately capture the underlying constructs is determined, laying the foundation for subsequent structural model testing. Subsequently, the structural model is assessed to examine the causal relationships among unobserved variables. This stage facilitates the assessment of the direct effects among the variables of interest (Hair et al., 2017). Additionally, PLS-SEM enables the exploration of complex interactions and moderating effects within the structural model, providing insights into the underlying mechanisms driving the relationships between variables. Overall, PLS-SEM offers a robust framework for analyzing the complex interplay between various factors (Henseler et al., 2016), contributing to a comprehensive understanding of the research phenomena.

Table 3: Construct reliability and validity

Particulars	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Impulse Buying Behaviour	0.936	0.943	0.955	0.843
Positive Affect	0.929	0.932	0.955	0.876
Store Environment Perception	0.813	0.816	0.865	0.518
UTBI	0.721	0.730	0.832	0.715

Source: Authors' Calculation using Smart PLS

Table 4: Discriminant validity (HTMT)

Particulars	Impulse Buying Behaviour	Positive Affect	Store Environment Perception
Positive Affect	0.593	-	-
Store Environment Perception	0.208	0.253	-
UTBI	0.633	0.660	0.249

Source: Authors' Calculation using Smart PLS

Table 5: Structural Model Fit Indices

Particulars	Saturated model	Estimated model
SRMR	0.063	0.063
d_ULS	0.475	0.475
d_G	0.186	0.186
Chi-square	721.097	721.097
NFI	0.884	0.884

Source: Authors' Calculation using Smart PLS

Measurement Model Assessment

In this research, store environment perception was conceptualized as a second-order construct. The analysis progresses in two phases. In the initial phase, the validity and reliability of the measurement models were assessed using established criteria, including factor loadings, Cronbach's alpha, and composite reliability. Notably, all assessed values surpassed the predefined threshold limits, indicating robustness in measurement. Subsequently, the latent variable scores representing the dimensions of store environment perception were derived and utilized

as indicators for store environment perception in further analysis for the second phase. The measurement model in the second phase was carefully examined, starting with a test for convergent validity. This test looked at how well the items aligned with their designated constructs, and tested their reliability. The results, shown in Table 3, indicated that all items had good loadings, meaning they accurately reflected their constructs. AVE figures covered a range from 0.518 to 0.876 that exceeds acceptable threshold of 0.5. Additionally, the figures of composite reliability (CR) were between 0.730 and 0.943, meeting established standards. After assessing convergent validity, HTMT ratio was used to assess the discriminant validity, as outlined by Henseler, Ringle, and Sarstedt (2015). According to Kline (2011), HTMT values below 0.85 or 0.90 demonstrate satisfactory discriminant validity. The results, as shown in Table 4 indicate that the HTMT values met these criteria, indicating that the measurement model adequately distinguished between different constructs. Finally, Table 5 presents the model indicators. SRMR was well below the acceptable threshold, indicating a strong fit for the model.

Table 6: Direct Path coefficients

Particulars	Coefficient	Standard Deviation	T statistics	P values	Hypothesis acceptance
Store Environment Perception -> Positive Affect	0.221	0.040	5.504	0.000	H1 Accepted
Store Environment Perception -> UTBI	0.082	0.035	2.335	0.020	H2 Accepted
Store Environment Perception -> Impulse Buying Behaviour	0.038	0.035	1.097	0.273	H3 Rejected
Positive Affect -> UTBI	0.547	0.036	15.234	0.000	H4 Accepted
Positive Affect -> Impulse Buying Behaviour	0.380	0.050	7.585	0.000	H5 Accepted
UTBI -> Impulse Buying Behaviour	0.296	0.049	6.073	0.000	H6 Accepted

Source: Authors' Calculation using Smart PLS

Structural Model Assessment

The study utilized Structural Equation Modelling (SEM) to explore the connections among different variables (Hair et al., 2018). To ensure statistical reliability, bootstrapping with 5,000 iterations was employed. The analysis also checked for common method bias, confirming the model's robustness.

Table 6 exhibits the results of direct effects of the relationships. The results indicated significant effects of Store Environment Perception on Positive Affect and UTBI supporting hypotheses H1 and H2. Moreover, Positive Affect exhibited a noteworthy impact on UTBI and Impulse Buying Behaviour validating hypothesis H4 and H5. Additionally, the study found positive associations between UTBI and Impulse Buying Behaviour aligning with hypothesis H6.These findings underscore the significance of the examined variables in comprehending organizational dynamics. Store Environment Perception did not exhibit a significant relationship with impulse buying behaviour thereby rejecting H3.

Table 7: Indirect effects

Particulars	Coefficient	Standard Deviation	T statistics	P values	Hypotheses Acceptance
Store Environment Perception -> Positive Affect -> Impulse Buying Behaviour	0.084	0.019	4.466	0.000	H7 Accepted
Store Environment Perception -> UTBI -> Impulse Buying Behaviour	0.024	0.011	2.117	0.034	H8 Accepted
Store Environment Perception -> Positive Affect -> UTBI -> Impulse Buying Behaviour	0.036	0.010	3.594	0.000	H9 Accepted

Source: Authors' Calculation using Smart PLS

Mediation Analysis

This study employed a mediation analysis, revealing the presence of serial mediation as hypothesized. According to the proposed model, Positive Affect and UTBI acted as mediators. The analysis considered interconnectedness of Store Environment Perception,Positive Affect, UTBI and Impulse Buying Behaviour allowing for serial mediation. The findings as exhibited in Table 7 confirmed that Positive Affect functions as a mediator in the association between Store Environment Perception and Impulsive Purchase Behaviour, supporting H7. UTBI also assumes a mediating function in the relationship between Store Environment Perception and Impulsive Purchase Behaviour, thereby confirming the acceptance of H8. Positive Affect and UTBI serially mediates the link between Store Environment Perception and Impulse Buying Behaviour, validating H9. The results indicate a full mediation analysis. (Zhao et al., 2010)

Discussion

The outcomes of this study highlight several important relationships among the constructs. Hypothesis H1, which posited that Store Environment Perception positively affects Positive Affect, was supported with a significant path coefficient of 0.221 ($p < 0.001$). This finding aligns with previous research suggesting that an amiable store environment can elevate shoppers' disposition (Donovan & Rossiter, 1982). Similarly, Hypothesis H2 was confirmed, showing that Store Environment Perception has a positive impact on UTBI with a path coefficient of 0.082 ($p = 0.020$). These results emphasize the effect of store atmospherics in stimulating immediate purchase impulses. However, Hypothesis H3, which suggested a direct effect of Store Environment Perception on Impulse Buying Behaviour, was not supported (path coefficient of 0.038, $p = 0.273$). This indicates that while the store environment influences shoppers' moods and impulses, it does not directly lead to impulsive purchases without the mediation of other factors. Positive Affect was identified to materially influence UTBI (H4) and Impulse Buying Behaviour (H5), with path coefficients of 0.547 ($p < 0.001$) and 0.380 ($p < 0.001$), respectively. This underscores the critical role of emotions in driving impulsive buying decisions, consistent with existing literature that links positive emotional states with increased likelihood of impulse purchases (Beatty & Ferrell, 1998). Moreover, the study confirmed Hypothesis H6, showing that UTBI significantly affects Impulse Buying Behaviour (path coefficient of 0.296, $p < 0.001$). This finding suggests that the immediate desire to purchase, triggered by positive emotions, and directly translates into impulsive buying actions.

The mediation analysis further elucidated these relationships. Hypothesis H7 was supported, revealing that Positive Affect mediates the relationship between Store Environment Perception and Impulse Buying Behaviour (coefficient of 0.084, $p < 0.001$). Hypothesis H8

was also confirmed, showing that UTBI mediates the same relationship (coefficient of 0.024, $p = 0.034$). Finally, Hypothesis H9 established that Positive Affect and UTBI serially mediate the association between Store Environment Perception and Impulse Buying Behaviour (coefficient of 0.036, $p < 0.001$). These findings suggest a complex interplay between the store environment, shopper emotions, and purchasing behaviour. Retailers can enhance their strategies by focusing not only on the physical aspects of the store but also on creating an environment that fosters positive emotions and immediate purchase impulses. This holistic approach could effectively increase impulsive buying behaviour, ultimately boosting sales and customer satisfaction.

Implications, Limitations and Direction for Future Research

The findings of the research hold meaningful insights for researchers and professionals in the realm of consumer behaviour as well as retail management. Firstly, the study underscores the need of designing a pleasant and engaging store atmosphere to incite positive emotion among the shoppers and in turn stimulates their impulse to buy. Retailers can leverage these insights by optimizing environmental factors such as lighting, music, and store layout to enhance customers' emotional experiences and trigger impulsive purchases. Additionally, understanding these mediating effects provides a more nuanced perspective on how various environmental and psychological factors interplay, offering a strategic blueprint for retailers aiming to increase sales and customer satisfaction.

Despite the valuable insights provided, this study has constraints. One significant limitation is the cross-sectional framework, as it collects data at one specific time and, therefore, cannot infer causality. Longitudinal studies would be beneficial to examine how these relationships evolve over time. Another limitation lies in the sample demographic, which may not fully represent the larger population. Additionally, the study primarily focuses on in-store environments, potentially overlooking the growing influence of online shopping contexts, which warrants further exploration.

Subsequent research should aim to address these limitations to deepen the comprehension of impulse buying behaviour. Longitudinal studies are recommended to establish causal relationships and observe changes over time. Expanding the demographic scope to include more diverse populations will also help in validating the findings across different consumer segments. Moreover, given the rise of e-commerce, future research should investigate how digital store environments impact impulse buying behaviour. Exploring the role of other potential mediators, for instance, social influences or personal characteristics might offer a deeper insight into the mechanisms driving impulse purchases. This expanded focus will be crucial in developing more effective strategies for both physical and online retail settings.

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