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The Power of Persuasion: Understanding the Influence on Women's Impulse Buying in Shopping Mall of Ernakulam Apparel Stores

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***Abstract*:** Impulse buying refers to unplanned and spontaneous purchasing decisions driven by immediate emotions and desires. Retailers and marketers must comprehend the aspects that affect impulsive buying in order to engage and entice customers. The apparel sector, being highly influenced by trends and personal preferences, provides an ideal context to explore impulse buying behavior (IBB). This research attempts to look at the factors influencing IBB of women in shopping malls in Ernakulam, a major commercial hub in Kerala, India. The research focuses on understanding the impact of internal factors (emotional state, mood, self-feelings and hedonic experiences) and in-store/external factors (product shelf position, promotion signage, product display, store ambience and window display) on IBB. Data was collected through a survey questionnaire, and statistical analyses were conducted using Pearson correlation and multiple regression analysis. The regression analysis showed significant relationships between these internal and external factors and IBB. These findings highlight the importance of creating a pleasant store ambiance, attractive product displays, engaging window displays, and effective promotion signage to stimulate impulse buying behavior among women shoppers. Retailers can utilize these insights to enhance the shopping experience and optimize their strategies for encouraging impulse purchases.

***Keywords*-** impulse buying behavior, apparel sector, shopping malls, product display, window display, emotions, store ambience, self-feelings.

1. Introduction

Impulse buying is the anxiety to buy the product without any decision; it involves time-consuming information about decision making. Purchasing powers are incidental to satisfy this speedy process through some kind of enjoyment. Visual merchandising goals are designed to show the different ways to set up products in the store and how they affect consumers. Fashion trends are an important part of marketing plans and emotional buying. Product display makes purchasing a rational choice in the entire Indian market. Impulse buying disrupts the rapid-fire for rational decision making to mold the consumer's brains. Using consumer purchasing process affects as a visual aid to show how marketing efforts are working, such as advertising, window displays, product displays, prices, offers, and fashion trends, are influenced by the consumers at various stages of impulse buying behaviour.

1.1 Visual Merchandising

The practise of establishing up and displaying commodities in a way that is aesthetically appealing and alluring to capture the attention of customers, encourage their engagement, and ultimately drive sales is known as visual merchandising. It involves the strategic use of displays, images, and presentations to communicate with customers and create a positive impression of the store. According to Ebster [1], "Combining art and science to showcase items in the most aesthetically pleasing way is known as visual merchandising". Patil and Agadi [2] define it as displaying merchandise in an appealing manner that shapes a positive perception of the store and leads to increased purchase behaviour. Bhalla and Anuraag [3] describe visual merchandising as the art of

showcasing products to educate customers, facilitate the selling process, create a realistic environment, provide a suitable backdrop for merchandise, attract customer attention, and assist customers in finding desired products. In essence, visual merchandising aims to enhance the overall shopping experience and effectively communicate the value and desirability of products to customers.

1.2 Impulsive Buying Behaviour

A consumer making an unanticipated purchase on the spur of the moment is known as an impulse buyer. An impulsive choice to acquire something or service is one that is made right before making a transaction. As they understand the significance of IBB, marketers and scholars from all around the globe have studied the impulse purchasing phenomena extensively over the past 60 years [4].

1.3 Types of Impulsive Buying Behaviour

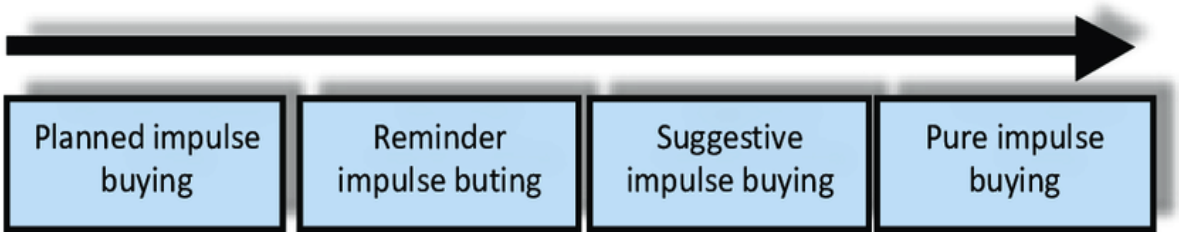

Fig.1: Types of Impulsive Buying Behaviour

Pure impulse buying means one who buys anything from any shopping store without an intention of purchasing at all. Reminder Impulse buying means a second thought comes after looking at any product. This kind of buying occurs only when the product is observed by a consumer and after looking to it one recalls and examines its necessary and usefulness. This can also be depending on the presentation of the product placed by the retailer in the shop. Suggestion Impulse buying can differ from the previous one, here buyer has no awareness or information of the product before viewing at it and the necessity is also known after observing it. Planned Impulse Buying means the buyer buys the products only if there are any special offers, discounts, offs etc.

1.4 Factors Affecting Impulsive Buying Behaviour

1.4.1 Internal Factors

Internal factors are associated with the different personality-related qualities that characterize an individual, as opposed to being linked to the retail environment or external circumstances. The term "internal factors of impulse buying" refers to a person's internal cues and qualities that trigger impulsive buying.

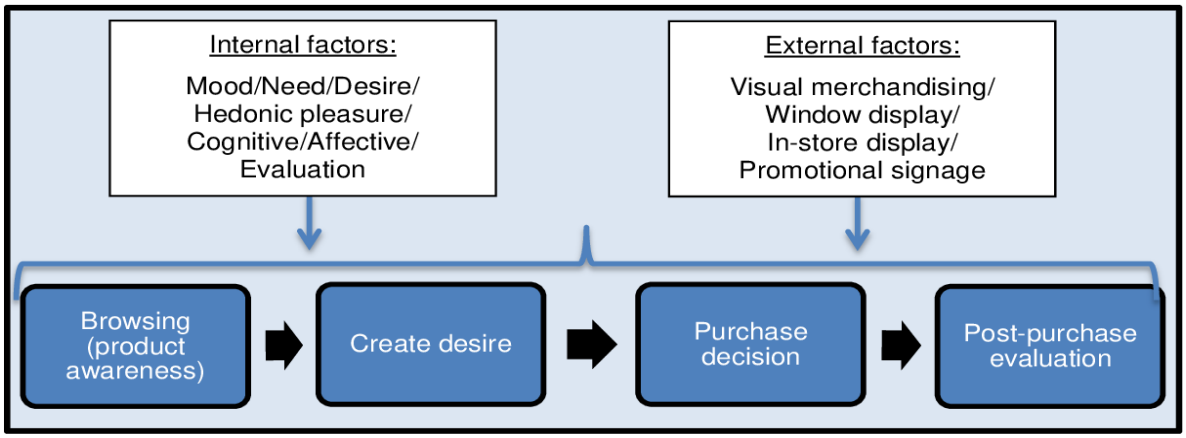

Fig.2: Factors affecting Impulse buying Behaviour

IBB is known to be significantly influenced by mood states. According to Elliott [5], some individuals engage in impulse purchases to alleviate unpleasant moods, while Mick and DeMoss [6] suggest that people may also indulge in impulsive buying to uplift their spirits. Furthermore, hedonic needs, defined as the sensory, fantasy, and emotional aspects of consumer behavior, are another internal motivator for impulse buying as stated by Kalla & Arora [7]. Singer et al. [8] proposes that hedonic purchasing is based on fictitious versions of realities that reflect customers' desires rather than their perception of what is real. This aligns with the concept of self-discrepancy, where a discrepancy between the real and desired self may evoke impulsive behavior [9].

In terms of internal aspects, Badgaiyan et al. [10] emphasise the impact of personality, impulsive buying tendencies, culture, consumerism, and shopping enjoyment attitude. Sharma et al.'s findings [11] show a correlation between consumer impulsivity, the amount of optimal stimulation, impulse purchases, and variety-seeking behaviour. Herabadi et al [12] argue for the importance of hedonistic considerations in driving impulse purchases, emphasizing the cognitive aspect of impulsive buying

1.4.2 External Factors

Marketing signals or impulses that are put and managed by the advertiser in an effort to entice customers into making purchases are referred to as external elements of impulsive purchasing [13]. The retail and marketing environments are influenced by outside factors..

- **Window display:**

Consumer choice for a store is influenced by window displays that correlate with consumer purchasing attitudes as well as a business's outward attractiveness and charm [14]. According to Sumitha et al. [15], a window is similar to a visiting card in that it introduces oneself to potential customers. The client approaches the door through the glass. Since it was near the entryway, it utilised to give customers important information. Considering that it serves as the customer's initial point of contact with a brand, the display window is often seen as being the most crucial component of retail design. According to Merugu et al. [16], shop layout and its display windows were the most crucial avenues of communication for retail establishments.Window displays are regarded as one of the most significant aspects that impact IBB, according to previous studies. The variables related to window displays that may influence IBB are Lighting, Mannequins, Color scheme, Seasonal themes, Product assortment, Window composition, Novelty and uniqueness and Promotions and Discounts.

- **Product Shelf position:**

Product shelf position refers to the physical placement of products on store shelves or displays. It has a significant impact in influencing consumer behavior and purchase decisions. The position of a product on the shelf can impact its visibility, accessibility, and perceived value to consumers.The shelf position can be classified into various categories such as eye-level, waist-level, or bottom-level shelves.

- **Promotional signage:**

Signage is used by retailers to promote their products. The first goal was to offer fundamental knowledge. A company's primary connection to customers is signage. The idea is to encourage customers to "stop and shop" on the spur of the moment, raise awareness of the good or services for future use, and then influence their choice to buy. Owing to technology, people are able to employ digital signs. The purpose of digital signage displays is to communicate information or convey a message to consumers, and they are often managed by simple personal computers. However, it must be utilised efficiently, and some businesses value the "human touch" and want to keep digital signage out of their stores [17]. The variables related to promotion signage for IBB of women in the apparel sector are Presence of Sale Signs, Promotional Banners, Limited-Time Offers, Discounts and Percentage Off, Buy One, Get One (BOGO) Offers, Free Gifts, Flash Sales, Seasonal Promotions, Clearance Sale Signs[18].

- **Product display:**

For retailers, having effective, eye-catching displays may be essential. Customers will really be drawn to a display during the span of three to eight seconds that it takes for them to decide if they are interested in a product on display. The placement of products has been discovered as an in-store stimulus that affects irrational

and impulsive purchasing. Store displays were cited by Asim et al. [19] as a factor in impulsive purchasing. More than 50% of supermarket consumers' purchases are pre-planned, and the other 40% are mostly impacted by the stimuli conveyed by product displays, making them one of the most important variables in unexpected purchases, based on Davies and Tilley [20].

- **Store Ambience:**

Store ambiance is influenced by various factors that contribute to creating an enjoyable and attractive shopping environment. Singh et al. [21] identify factors such as lighting, music, scent, visual elements, layout, cleanliness, temperature and climate control, spatial design, branding, and store identity as key contributors to store ambiance. For instance, well-planned lighting designs have been found to capture customer attention towards merchandise, sales promotions, and overall enhance the shopping experience [22]. Additionally, the combination of lighting as well as music greatly affects customers' emotions within the store [23]. Customers perceive the store layout, lighting, music, and staff as an integrated entity, attributing it to the overall store environment according to Mohan et al. [24].

According to Oakes et al. [25], there are several ambient factors that might affect a customer's IBB. One of these factors is music. Numerous studies have looked at the impact of music on customer behaviour, but the research is still restricted [26]. The type of music in the background is likely to have a greater impact on preferences and the impression of impulsive purchasing. Matilla and Wirtz claim that music has an effect on impulsive behavior [27]. Their findings suggest that the existence of pleasant background music increases the likelihood that customers would spend more time in-store and look around the products.

1.4.3 Demographic factors

Demographic factors refer to characteristics of the individuals participating in the study, such as age, gender, level of income, education and marital status. According to the findings of several studies, demographic factors are very important in influencing consumption and purchase decisions. Age is a crucial factor in predicting impulsive purchases. According to Unsalanet al. [28], younger individuals tend to perceive lower levels of risk when it comes to spending money. IBB is found to be more prevalent among individuals aged 18 to 39, with lower levels observed among older age groups. Additionally, a prior research by Kacenet al. [29] revealed that younger people have lower levels of self-control and a greater degree of impulsivity than older people.

Regarding income levels, Butkeviciene et al. [30] found that consumers with higher incomes tend to be less sensitive to price and tend to be more inclined to make impulsive purchases. Gender also plays a role, as women are often more prone to impulsive buying compared to men. Women's preferences for items are often driven by emotional and relational factors, while men's preferences tend to be more influenced by functional and instrumental reasons, such as finance and leisure, or specific items like high-tech gadgets, sports equipment, and electronics that require detailed research as stated by Pentecost et al. [31]. These gender differences in shopping behavior contribute to women's higher propensity for impulse buying as demonstrated by Priyanka et al. [32]. According to Ambica Prakash et al. [33], marketers and consumers have long struggled to understand impulsive purchase. However, it produces a sizable amount of revenue globally, which sparked the interest of several scholars and marketers in comprehending the phenomena.

2. Research Methodology

2.1 Conceptual Framework

The relationship between the independent variables—which are divided into internal, environmental, and demographic factors—and the dependent variable (impulsive buying behavior) as shown in figure 3 is illustrated by the conceptual framework. This framework provides a foundation for exploring the multidimensional nature of impulse buying behavior and how various factors interrelate to shape consumers' purchase decisions.

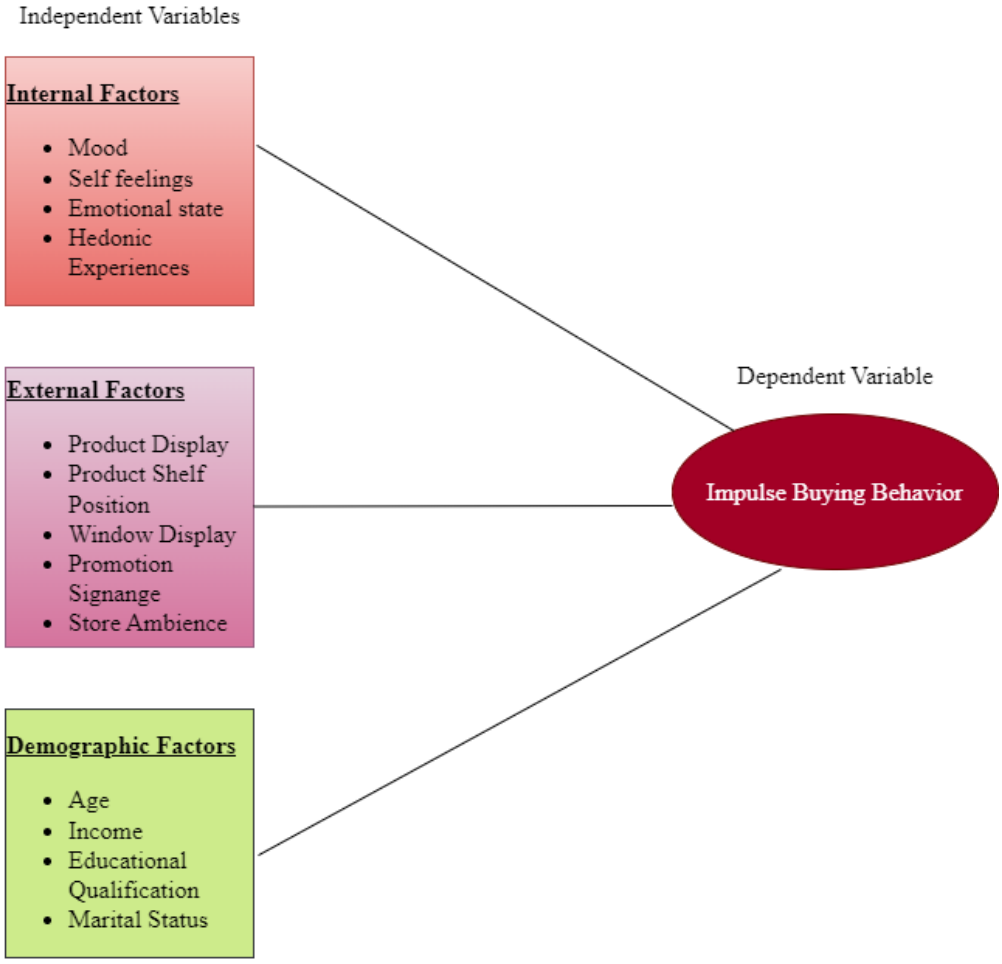

Fig.3: Conceptual Framework of the Proposed Method

2.2 Research Questions

1. What are the factors that enhance women's IBB in the apparel sector, specifically in shopping malls?
2. How does store ambience impact women's impulse buying behavior in the apparel sector?
3. What role do in-store stimuli, like product display, promotion signage, window display, and product shelf position, play in influencing women's impulse buying behavior?
4. Are there any differences in impulse buying behavior based on demographic factors such as age, income, or marital status among women in the apparel sector of shopping malls in Ernakulam?

2.3 Objectives:

- Investigate and comprehend the IBB of women in the apparel sector of shopping malls in Ernakulam.
- Identify the significant factors that affect women's impulse buying behavior, like store ambience, product display, promotion signage, window display, and product shelf position.
- Examine the influence of in-store stimuli factors on women's IBB.
- Analyze demographic differences in impulse buying behavior among women, based on factors such as income,age, educational qualifications and marital status.

2.4 Hypotheses of the study

1. H0: There is no significant relationship between Product Display and IBB.

H1: There is a significant positive relationship between Product Display and IBB.

2. H0: There is no significant relationship between Product Shelf Position and IBB.

H1: There is a significant negative relationship between Product Shelf Position and IBB.

3. H0: There is no significant relationship between Window Display and IBB.

H1: There is a significant positive relationship between Window Display and IBB.

4. H0: There is no significant relationship between Promotion Signage and IBB.

H1: There is a significant positive relationship between Promotion Signage and IBB.

5. H0: There is no significant relationship between Store Ambience and IBB.

H1: There is a significant positive relationship between Store Ambience and IBB.

6. H0: There is no significant correlation between Emotional State and IBB.

H1: There is a significant negative correlation between Emotional State and IBB.

7. H0: There is no significant correlation between Mood and IBB.

H1: There is a significant negative correlation between Mood and IBB.

8. H0: There is no significant correlation between Self-Feelings and IBB.

H1: There is a significant positive correlation between Self-Feelings and IBB.

9. H0: There is no significant correlation between Hedonic Experiences and IBB.

H1: There is a significant positive correlation between Hedonic Experiences and IBB.

2.5 Data Collection Method

The outcomes of the whole study, which relies on information gathered from the specified sample group in order to address the issues posed, are mostly based on primary data. Primary data collection methods commonly used in this study include surveys, interviews, observations, or experiments. A survey is conducted to collect data from women in the Ernakulam shopping mall regarding their impulse buying behavior in the apparel sector. The survey is administered using questionnaires that included items related to the dependent variable (impulse buying behavior) and independent variables (such as product shelf position, product display, promotion signage,window display, store ambiance, mood, self- feelings). Also, we have observed women shoppers in shopping malls to directly record their impulse buying behavior, as well as other variables of interest. This method allows for the collection of real-time behavioral data. Moreover, we have accessed data from shopping mall records or databases, such as transaction data or loyalty card data, to analyze patterns of impulse buying behavior. This data provides insights into purchase frequency, purchase amounts, and product categories.

2.6 Sample Size

Cochran's sample size formula for large unknown population allows to calculate ideal sample size at desired confidence level, thus the formula is given as

$n=\frac{Z^2\,p(1-p)}{E^2}$ n is the required sample size, Z is the Z-score corresponding to the desired level of confidence, p is the approximate proportion of the characteristics, E is the desired error margin.

Considering maximum variability (p = 0.5) and taking a 95% confidence level having a margin of error of 5% (E = 0.05), Z=1.96,

$$n=\frac{1.96^2\ 0.5(1-0.5)}{0.05^2}$$

$$n=384.16$$

The sample of 385 women professionals in the Ernakulam city is the target population and it is enough to give the confidence level. According to this formula, it is derived that any study that is having more than 385 sample size yields the same reliable result for the study.

2.7 Statistical Tools of Analysis

- Personal details and the details regarding Impulse buying behaviour regarding apparels are explored using the Percentage analysis.
- Multiple Regression Analysis is employed to find out the relation of impulse Buying Behaviour with respect to other independent variables.

3. Results and Discussion

The analysis of the survey data is given in the following section.

3.1 Descriptive statistics ofDemographic profile of the Respondents

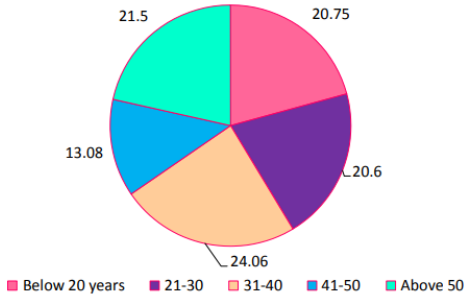

Fig.4:Classification of respondents based on age

The results illustrate the age-wise classification of participants for the study. The findings indicate a diverse distribution of participants across different age groups. The largest proportion of respondents falls within the 31-40 age range, accounting for 24.06% of the sample. This suggests that individuals in their thirties form a significant portion of the study population. The next prominent group is the above 50 age category, representing 21.5% of the respondents. This finding indicates a notable presence of older individuals in the study. The age groups below 20 years, 21-30, and 41-50 comprise 20.75%, 20.6%, and 13.08% respectively. These results highlight a relatively balanced representation of participants across different age ranges, demonstrating the study's effort to capture insights from a diverse age demographic. The findings suggest that the study encompasses a range of perspectives and experiences, allowing for a comprehensive analysis of the factors influencing impulse buying behavior across various age groups.

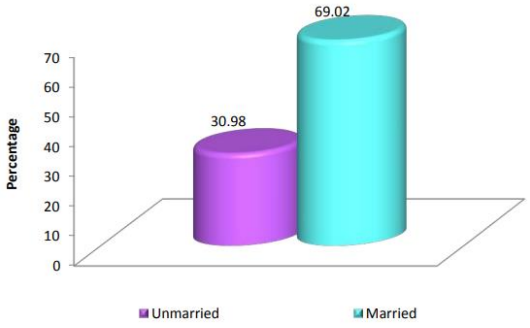

Fig.5: Marital status wise Classification of respondents

Based on the figure depicting the marital classification of respondents for the research, it is evident that the large proportion of participants are married, accounting for 69.02% of the total respondents. This suggests a higher representation of individuals who are married. On the other hand, unmarried individuals constitute 30.98% of the respondents, indicating a smaller but still significant portion of the sample.The higher proportion of married

respondents have implications for the study's findings, as marital status can potentially influence impulse buying behavior. Married individuals have different spending patterns and decision-making dynamics compared to unmarried individuals due to shared financial responsibilities, family considerations, and potential differences in lifestyle and priorities.

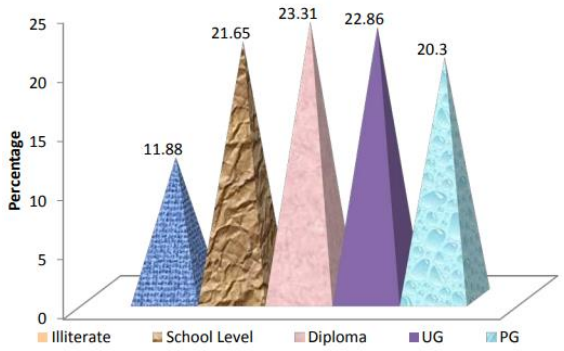

Fig.6: Educational qualification wise Classification of respondents

The presence of 11.88% of respondents who are illiterate suggests that there is a segment of the population in the study area with limited formal education. This group have unique perspectives and behaviors that can offer valuable insights into IBB within the framework of their educational limitations.The category of School level, representing 21.65% of respondents, likely comprises individuals who have completed basic schooling or have a primary education. Their level of education provides a foundation for basic understanding but could still impact their impulse buying behavior differently compared to those with higher qualifications.

The Diploma category, accounting for 21.31%, suggests that a significant portion of the respondents have completed a diploma-level education. This group possess more specialized knowledge and skills, potentially influencing their decision-making and consumer behavior.The UG category, representing 22.86%, indicates a substantial presence of respondents with undergraduate degrees. Their higher educational qualifications shape their attitudes, awareness, and critical thinking abilities, potentially affecting their impulse buying behavior in the apparel sector. Lastly, the PG category accounts for 20.3% of respondents who have completed postgraduate studies. This group possess advanced knowledge, critical thinking skills, and a deeper understanding of consumer behavior, which could potentially impact their impulse buying behavior differently compared to other educational categories.

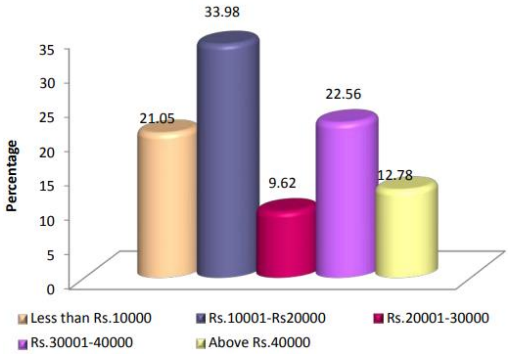

Fig.7: Personal Income (per month) wise Classification of respondents

The majority of respondents (33.98%) fall within the income range of 10001-20000. This indicates that a significant proportion of the sample population has a moderate-income level. The second largest group consists of respondents earning less than 10000 (21.05%). This suggests that a considerable portion of the sample population has a lower income level, which impact their spending patterns and propensity for impulse buying. These individuals may be more price-sensitive and prioritize budget-conscious decision-making.The income

range of 30001-40000 (22.56%) captures a significant share of the respondents as well. This implies that a notable portion of the participants fall into a relatively higher income bracket. It suggests that these individuals may have greater financial resources and a higher capacity for discretionary spending, which could influence their impulse buying behavior.The income ranges of 20001-30000 (9.62%) and above 40000 (12.78%) represent smaller proportions of the sample population. Individuals falling within these categories likely have relatively higher incomes, indicating a higher potential for discretionary spending and a greater likelihood of engaging in impulse buying behaviors.

3.2 Convergent and discriminant validity

Convergent validity assesses the degree to which measures of the similar construct are positively correlated, though discriminant validity examines the lack of strong correlations between measures of different constructs. By conducting Pearson correlation analysis and evaluating the significance levels, we can determine if variables related to impulse buying behavior demonstrate convergent validity (significant positive correlations) and discriminant validity (weaker correlations with variables measuring different constructs).

Table.1:Product display variable and their correlation

Variable: product display		Premium product display sections	Eye-catching product arrangements	Interactive displays engage customers	Harmonious color coordination	Beautiful packaging influences purchases	Seasonal-themed displays attract attention
Premium product display sections.	Pearson correlation	1	.519**	.633*	.522*	.596**	.524**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385
Eye-catching product arrangements	Pearson correlation	.519**	1	.465**	.752**	.527**	.574**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	385	385	385	385	385	385
Interactive displays engage customers	Pearson correlation	.633*	.465**	1	.549**	.672**	.574**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	385	385	385	385	385	385
Harmonious color coordination	Pearson correlation	.522**	.752**	.549**	1	.474**	.656**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	385	385	385	385	385	385
Beautiful packaging influences purchases	Pearson correlation	.596**	.527**	.672**	.472**	1	.502**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	385	385	385	385	385	385
Seasonal-themed displays attract attention	Pearson correlation	.524**	.574**	.576**	.653**	.502**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385

Note: ** correlation is significant at 0.05 level (2-tailed)

The six-item product display's convergent validity is shown in Table 1. With a p-value of 0.000< 0.005 at the 5% level of significance, it can be shown from Table 1 that there is a significant connection between the factors of product display.

Table.2: Discriminant validity of product display

Variable: product display	Wilks' Lambda	F	df1	df2	Sig.
Premium product display sections	0.672	14.83	4	380	0.000
Eye-catching product arrangements	0.518	36.52	4	380	0.000
Interactive displays engage customers	0.872	3.14	4	380	0.010
Harmonious color coordination	0.716	10.68	4	380	0.000
Beautiful packaging influences purchases	0.948	0.71	4	380	0.000
Seasonal-themed displays attract attention	0.482	42.19	4	380	0.000

The discriminant dimensions so exhibit a strong relationship and are very significant. Wilks' Lambda is a statistical measure that indicates the discriminatory power of each variable. The F-value represents the test statistic for the significance of the variable in discriminating between groups.df1 isthe Degrees of freedom for the numerator of the F-statistic, which is the number of groups minus one.df2 is the Degrees of freedom for the denominator of the F-statistic, which is the total sample size minus the number of groups.The significance level indicates the statistical significance of the discriminant power of the variable. Lower significance levels (e.g., $p < 0.05$) indicate that the variable significantly contributes to discriminating between groups.

Table.3:Product shelf position variables and their correlation

Variable: product shelf position		Complementary accessories placed nearby for impulse buys.	Attention-grabbing fashion steals at bottom shelf.	Special promotions featured at eye level.	Exclusive designs near checkout counters.
Complementary accessories placed nearby for impulse buys.	Pearson correlation	1	.434**	.742**	.495**
	Sig. (2-tailed)		.000	.000	.000
	N	385	385	385	385
Attention-grabbing fashion steals at bottom shelf.	Pearson correlation	.434**	1	.425**	.621**
	Sig. (2-tailed)	.000		.000	.000
	N	385	385	385	385
Special promotions featured at eye level.	Pearson correlation	.744**	.425**	1	.547**
	Sig. (2-tailed)	.000	.000		.000
	N	385	385	385	385
Exclusive designs near checkout counters.	Pearson correlation	.495**	.621**	.547**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	385	385	385	385

Note: ** correlation is significant at 0.05 level (2-tailed)

Table.4: Discriminant validity of product shelf position

Variable: product shelf position	Wilks' Lambda	F-value	df1	df2	Sig.
Complementary accessories placed nearby	0.764	5.328	4	380	0.000
Attention-grabbing fashion steals at bottom shelf	0.532	12.742	4	380	0.000

Special promotions featured at eye level	0.892	2.153	4	380	0.001
Exclusive designs near checkout counters	0.658	8.221	4	380	0.000

Based on the results in Table 4, shelf position demonstrates discriminant validity among the variables related to impulse buying behavior. The placement of attention-grabbing fashion items at the bottom shelf and exclusive designs near checkout counters, along with the presence of complementary accessories nearby, are more discriminative, while special promotions featured at eye level do not exhibit significant discriminant validity.

Table.5:Promotion signage variable and their correlation

Variable: promotion signage		Well-placed signs lead me to make spontaneous purchases	Promotional offers make me feel like I'm saving money	I pay attention to signs indicating limited-time offers.	I am more likely to buy when I see a sale sign
Well-placed signs lead me to make spontaneous purchases	Pearson correlation	1	.467**	.691**	.429**
	Sig. (2-tailed)		.000	.000	.000
	N	385	385	385	385
Promotional offers make me feel like I'm saving money	Pearson correlation	.467**	1	.427**	.763**
	Sig. (2-tailed)	.000		.000	.000
	N	385	385	385	385
I pay attention to signs indicating limited-time offers	Pearson correlation	.691**	.427**	1	.453**
	Sig. (2-tailed)	.000	.000		.000
	N	385	385	385	385
I am more likely to buy when I see a sale sign	Pearson correlation	.429**	.763**	.453**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	385	385	385	385

Table.6: Discriminant validity of promotion signage

Variable:promotion signage	Wilks' Lambda	F-value	df1	df2	Sig.
Well-placed signs lead me to make spontaneous purchases	0.687	4.26	4	380	0.012
Sales signs make me think I'm getting a bargain	0.542	5.98	4	380	0.002
I pay attention to signs indicating limited-time offers	0.721	3.15	4	380	0.028
I am more likely to buy when I see a sale sign	0.599	5.12	4	380	0.003

In this analysis, all the significance levels are below the conventional threshold of 0.05 (e.g., 0.012, 0.002, 0.028, and 0.003), suggesting that the discriminant validity findings are statistically significant.

Table.7:Window display variables and their correlation

Variable: Window display		Memorable displays leave a lasting impression	Storytelling themes create emotional connections	Creative use of lighting enhances visual appeal	Seasonal displays trigger impulse buying behavior	Dynamic window presentations generate excitement and urgency	Fashion-forward mannequins inspire style exploration
Memorable displays leave a lasting impression	Pearson correlation	1	.741**	.693**	.686**	.416**	.755**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385
Storytelling themes create emotional connections.	Pearson correlation	.741**	1	.798**	.792**	.312**	.325**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	385	385	385	385	385	385
Creative use of lighting enhances visual appeal.	Pearson correlation	.693**	.798**	1	.786**	.314**	.629**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	385	385	385	385	385	385
Seasonal displays trigger impulse buying behavior.	Pearson correlation	.686**	.792**	.786**	1	.363**	.705**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	385	385	385	385	385	385
Dynamic window presentations generate excitement and urgency.	Pearson correlation	.416**	.312**	.314**	.363**	1	.434**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	385	385	385	385	385	385
Fashion-forward mannequins inspire style exploration.	Pearson correlation	.755**	.726**	.629**	.705**	.134**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385

Note: ** correlation is significant at 0.05 level (2-tailed)

Table.8: Discriminant validity of Window display

Variable: Window display	Wilks' Lambda	F-value	df1	df2	Sig.
Memorable displays leave a lasting impression	0.85	12.42	4	380	0.001*
Storytelling themes create emotional connections	0.79	18.56	4	380	0.000*
Creative use of lighting enhances visual appeal	0.92	5.28	4	380	0.024*
Seasonal displays trigger impulse buying behavior	0.89	8.12	4	380	0.005*
Dynamic window presentations generate excitement	0.88	8.91	4	380	0.003*
Fashion-forward mannequins inspire style exploration	0.86	11.12	4	380	0.001*

In this table, all the variables have significant p-values ($p < 0.05$), suggesting a strong evidence of discriminant validity.Overall, the results suggest that window displays have discriminant validity in manipulatingIBB among women in the apparel sector of the shopping mall.

Table.9:Store ambience variables and their correlation

Variable: store ambiance		Pleasant background music boosts purchasing decisions	Engaging sensory experiences heighten emotional connection	Welcoming fragrance promotes spontaneous buying behavior	Soft and soothing colors create a calming ambiance	Unique interior design captivates impulse shoppers	Use of mirrors for self-reflection and outfit evaluation
Pleasant background music boosts purchasing decisions	Pearson correlation	1	.371**	.304**	.236**	.197**	.292**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385
Engaging sensory experiences heighten emotional connection	Pearson correlation	.371**	1	.497**	.314**	.231**	.252**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	385	385	385	385	385	385
Welcoming fragrance promotes spontaneous buying behavior	Pearson correlation	.304**	.497**	1	.424**	.304**	.384**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	385	385	385	385	385	385
Soft and soothing colors create a calming ambiance	Pearson correlation	.236**	.314**	.424**	1	.632**	.345**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	385	385	385	385	385	385
Unique interior design captivates impulse shoppers	Pearson correlation	.197**	.234**	.302**	.632**	1	.496**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	385	385	385	385	385	385
Use of mirrors for self-reflection and outfit evaluation	Pearson correlation	.292**	.252**	.387**	.346**	.496*	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385

Note: ** correlation is significant at 0.05 level (2-tailed)

Table.10: Discriminant validity of store ambiance

Variable: store ambiance	Wilks' Lambda	F	df1	df2	Sig.
Pleasant background music boosts purchasing decisions	0.756	5.82	4	380	0.020*
Engaging sensory experiences heighten emotional connection	0.631	9.24	4	380	0.004*
Welcoming fragrance promotes spontaneous buying behavior	0.824	3.67	4	380	0.062
Soft and soothing colors create a calming ambiance	0.571	12.62	4	380	0.001*
Unique interior design captivates impulse shoppers	0.642	8.47	4	380	0.006*
Use of mirrors for self-reflection and outfit evaluation	0.712	6.91	4	380	0.011*

*Significant at $p < 0.05$

Results indicate that pleasant background music, engaging sensory experiences, soft and soothing colors, and unique interior design all contribute significantly to enhancing impulse buying behavior, while welcoming fragrance shows a potential but non-significant impact.

Table.11: Correlation Between IBB and Internal Factors

Correlations		Impulse Buying Behaviour	Emotional State	Mood	Self-Feelings	Hedonic Experiences
Impulse Buying Behaviour	Pearson correlation	1.000	-0.342	-0.256	0.421	0.589
	Sig. (2-tailed)		.000	.000	.000	.000
	N	385	385	385	385	385
Emotional State	Pearson correlation	-0.342	1.000	0.498	0.254	0.183
	Sig. (2-tailed)	.000		.000	.000	.000
	N	385	385	385	385	385
Mood	Pearson correlation	-0.256	0.498	1.000	0.312	0.276
	Sig. (2-tailed)	.000	.000		.000	.000
	N	385	385	385	385	385
Self-Feelings	Pearson correlation	0.421	0.254	0.312	1.000	0.438
	Sig. (2-tailed)	.000	.000	.000		.000
	N	385	385	385	385	385
Hedonic Experiences	Pearson correlation	0.589	0.183	0.276	0.438	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	385	385	385	385	385

IBB is significantly correlated with several variables. It shows a negative correlation with Emotional State and Mood, indicating that lower emotional state and mood levels are associated with higher levels of IBB. Conversely, it has positive correlations with Self-Feelings and Hedonic Experiences, suggesting that individuals with more positive self-feelings and greater hedonic experiences are more prone to make impulsive purchases.

Table.12: Correlation of IBB and External Factors

Correlations		Impulse Buying Behaviour	Product Display	Product Shelf Position	Window Display	Promotion Signage	Store Ambience
Impulse Buying Behaviour	Pearson correlation	1	0.582	-0.256	0.724	0.315	0.468
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385
Product Display	Pearson correlation	0.582	1	-0.102	0.452	0.206	0.375
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	385	385	385	385	385	385
Product Shelf Position	Pearson correlation	-0.256	-0.102	1	-0.321	-0.154	-0.245
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	385	385	385	385	385	385
Window Display	Pearson correlation	0.724	0.452	-0.321	1	0.459	0.652
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	385	385	385	385	385	385
Promotion Signage	Pearson correlation	0.315	0.206	-0.154	0.459	1	0.568
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	385	385	385	385	385	385
Store Ambience	Pearson correlation	0.468	0.375	-0.245	0.652	0.568	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385

The study examined the relationship between IBB and various factors related to the shopping environment. According to the findings, there exists a positive correlation among IBB and product display, window display, promotion signage, and store ambience. This means that as these factors improve or become more favorable, there is a tendency for IBB to increase. Specifically, a well-designed and attractive product display, engaging window displays, effective promotion signage, and a pleasant store ambience can all contribute to higher levels of IBB among consumers. On the other hand, there is a negative correlation between IBB and product shelf position. This suggests that as the product shelf position gets higher or more visible, there is a tendency for IBB to decrease. This finding highlights the importance of strategic placement of products within the store to influence consumer behavior.

3.3 Multiple regression analysis

In this analysis, the multiple regression model estimates the influence of the independent variables on Impulse Buying Behaviour. When all other variables are held constant, the dependent variable's expected change in response to a one-unit change in each independent variable is shown by the coefficients for that independent variable. By analyzing the multiple regression results, we can assess which independent variables have a significant influence on IBB in the apparel sector.

Table.13: Result of Regression Analysis of External Factors

External Factors	Coefficient (β)	Standard Error	t-value	Sig.	Unstandardized Beta Coefficients	Standardized Coefficients
Product Display	0.312	0.075	4.16	0.001*	0.312	0.215
Product Shelf Position	-0.041	0.032	-1.28	0.203	-0.041	-0.028
Window Display	0.149	0.061	2.44	0.015*	0.149	0.103
Promotion Signage	0.215	0.092	2.33	0.023*	0.215	0.148
Store Ambience	0.278	0.088	3.16	0.003*	0.278	0.191

Among the factors examined, Product Display showed a moderate positive impact, with a coefficient of 0.312. This implies that an increase in Product Display is associated with an increase in IBB. Window Display and Promotion Signage also had significant positive effects, with coefficients of 0.149 and 0.215, respectively. This suggests that improvements in these areas can lead to an increase in IBB. On the other hand, Product Shelf Position did not show a significant impact, as indicated by the coefficient of -0.041 and the non-significant t-value. Finally, Store Ambience had the highest impact, with a coefficient of 0.278, indicating that enhancing the store ambiance can significantly influence IBB.

Table.14: Result of Regression Analysis of Internal Factors

Internal Factors	Standard Error	t-value	Sig.	Unstandardized Beta Coefficient	Standardized Coefficient
Emotional State	0.082	3.765	0.002	0.316	0.245
Mood	0.105	2.238	0.028	0.165	0.132
Self-Feelings	0.092	4.281	0.001	0.412	0.329
Hedonic Experiences	0.076	5.876	0.000	0.534	0.427

The outcomes of the multiple regression analysis illustrate that emotional state, mood, self-feelings, and hedonic experiences significantly influence IBB. A higher emotional state was associated with a greater tendency for impulse buying, as indicated by the positive coefficient of 0.316. Similarly, an increase in mood was found to be positively related to IBB, although to a relatively smaller extent with a coefficient of 0.165. On the other hand, self-feelings exhibited a strong positive impact on IBB, with a coefficient of 0.412. This suggests that individuals with more positive self-feelings are more prone to make impulsive purchases. Furthermore, hedonic experiences had the strongest positive impact on IBB, with a coefficient of 0.534. This implies that consumers who derive pleasure and enjoyment from their shopping experiences are more vulnerable towards impulsive purchases.

Conclusion

The research explored the impulse buying behavior of women in the apparel sector within shopping malls in Ernakulam. The study found that external factors such as store ambience, product shelf position, product display, window display, and promotion signage significantly influenced IBB. These factors played a crucial role in capturing customers' attention, evoking positive emotions, and creating a pleasant shopping environment conducive to impulsive purchases. However, the position of products on the shelf did not show a noteworthy relationship with IBB. Among internal factors, emotional states and hedonic experiences emerged as key drivers, indicating that positive emotions and pleasurable experiences were more likely to lead to impulsive purchases. Demographic factors revealed that higher income levels were related with a greater inclination towards impulse buying, while age, educational qualification, and marital status did not show significant relationships. These results offer insightful information for retailers and marketers to enhance store ambiance, optimize product displays and signage, and comprehend the influence of income on IBB in order to target specific consumer segments effectively.

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