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IMPULSE BUYING BEHAVIOUR AT THE RETAIL CHECKOUT: AN INVESTIGATION OF SELECT ANTECEDENTS

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Abstract. The remarkable growth of the Indian retail landscape over the last decade is reflected in the proliferation of supermarkets, departmental stores and hypermarkets in India. Evolving consumption patterns, raising living standards has sparked a huge demand in the food and grocery retailing. Impulse buying is a time-tested tactic by which retailers grab customer's attention and boost average purchase value. Prior research has deliberated extensively on impulse buying in the store and its determinants. However, little effort has been made to examine the impulse buying behaviour, particularly at the retail checkout. To bridge this gap, we conducted an empirical study in the leading food and grocery modern retail stores in selected Tier I and Tier II cities in the state of Karnataka, India. The data was collected from 385 respondents using a structured questionnaire. The responses were analysed using confirmatory factor analysis and multiple regression. Our study shows that impulse buying at the store checkout area is minimal and sporadic for most of the product categories at the checkout. Impulse buying at the checkout is instigated by factors such as store environment, credit card availability, momentary mood, in-store promotion, offers and discounts and large merchandise. The study has important implications for retail stores by emphasising on the choice of merchandise offered for sale at the checkout area. Further, the investigation reveals that Indian shoppers are health-conscious and cautious about their purchase at the checkout rather than being impulsive.

Keywords: impulse buying, grocery retailing, in-store promotion, situational factors, external factors, retail checkout.

JEL Classification: D91, L21, L81, M31.

Introduction

Indian retail industry is the fifth-largest in the world and is one of the most preferred, fast-growing global destination for retail space (FICCI, 2020; IBEF, 2019). The organised retailing share is anticipated to grab a market share of 22% by 2021, while the share of organised grocery stores and departmental chain stores is expected to touch 18% during the same period (Suneera, 2019). The modern food and grocery retail in India largely comprise of supermarkets and hypermarkets formats and are fast expanding due to evolving consumer preferences (Sandoval & Sawant, 2019). Most of the Indian department stores have shared checkout at the entrance/exit area of the store (Pataskar, 2011; Fatima, 2013, p. 44). The efficiency of the checkout was observed to be poor in western Maharashtra, a highly developed urban zone in India (Pataskar, 2011, p. 202).

Researchers in the past often attributed checkout as a compelling, unavoidable and common experience in retail service encounters (Maister, 1985; Taylor, 1994; Van Riel et al., 2012; Schimmel & Bekker, 2013; Weiss & Tucker, 2018; Ullal & Hawaldar, 2018; Hawaldar et al., 2019). Waiting at the checkout area is usually alleged as an unproductive time that does not create any value for the customer (Nethravathi et al., 2020; Van Riel et al., 2012). The checkout lane is flanked by the attractive product displays having a low cost, high margin to stimulate impulse buying (Nathanson, 2013). From the store's perspective, waiting at the checkout is an opportunity to raise additional revenue (Weiss & Tucker, 2018; Ullal et al., 2020).

Pugliese (1998) reported about 69% of the magazines bought as an impulse buy at the checkout counter and perceived as a "want" by the customers in the U.S. A drop in impulse buying of candies and magazines were observed in Quincy, Massachusetts when the customers availed self-checkout over staffed counters (Vinish et al., 2021; Adams, 2006). Hilliard (2014) shared evidence of impulse buying

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of items such as beer, aerated soft drinks, candy bars, chips and ice-creams by the American citizens at the checkout aisles in the food retail stores. According to a study by Nielsen in 2012, the impulse potential can be increased by positioning items near the store entrance or exit (Hilliard, 2014). This argument is true in the case of Coca Cola where more than 70% of its sales are through impulse buying as stated by the CEO Mr Muhtar Kent (Vinish et al., 2020; Karmali, 2007). Placing confectionary items near the checkout was effective in attracting small kids who pester their parents for purchasing the same (Raju et al., 2015). Impulse goods at the checkout generate good margins without affecting sales of items displayed in other areas of the store due to its exclusive placement near the billing counter (Vinish et al., 2020; Eder, 2002; Iyer, 1989).

While impulse sales are a huge opportunity to boost overall profit, Ghosh et al. (2010) advocate that customers visiting the stores expect fast and efficient billing system, which could be a hindrance to impulse buying at the checkout. According to Bettman (1979), the amount of time available regulate the degree of information processed. Iyer (1989) suggests that in the absence of time pressure customers search for in-store queues and are more likely to make an unplanned purchase in the context of a grocery store. Beatty and Ferrell (1998) found a positive relationship between the time available and the prospect of making an impulse buy. However, we have not come across any convincing evidence to confirm the impact of the presence of time pressure (faster checkout) or absence of time pressure on impulse buying behaviour precisely at the checkout counter.

Prior work on impulse purchase was focused on antecedents such as personal characteristics like shopping enjoyment and impulse buying tendency (Beatty & Ferrell, 1998; Weun et al., 1998; Sharma al., 2010), optimum stimulation level (Nethravathi et al., 2020; Sharma et al., 2010), product-specific conceptualization and involvement (Jones et al., 2003), and situational variables such as time and money available (Beatty & Ferrell, 1998), point-of-purchase signboards (Peck & Childers, 2006), product display (Ghani & Kamal, 2010), point-of-purchase posters featuring discount information (Zhou & Wong, 2003).

Store characteristics such as in-store atmosphere and customer's emotional state (Vinish et al., 2021; Sherman et al., 1997), lighting, music and social factors such as salespeople attire and approach, merchandise quality (Baker et al., 1994), pricing and store image (Wheatley & Chiu, 1977), shopping satisfaction (Bitner, 1990) were found to influence store preferences, the volume of purchase made, time and money spent in the store. Tauber (1972) suggested the need for socialising and peer group attraction as the reasons for visiting the stores. Presence of social cues and service quality drive favourable attitude towards the store and shopping arousal (Hu & Jasper, 2006). Mohan et al. (2013) explored the synergy among environmental factors, individual factors and impulse buying behaviour. Nonetheless, there exists limited research on the influence of the above factors on impulse buying behaviour at the retail checkout in the Indian context. Thus, this study aims to analyse the impulse purchase of merchandise displayed at the store's checkout area; assess the impact of situational factors and external stimuli on the impulse purchase of products displayed at the checkout.

1. Literature review

Retailers have well acknowledged the sales generated through impulse buying (Clover, 1950), and hence it gave rise to considerable research interest (cf. Stern, 1962; Kollat & Willett, 1969; Rook, 1987; Peck & Childers, 2006; Ali & Hasnu, 2013). Stern (1962) refined the meaning of impulse buying and classified impulse buying mix as pure, reminder, suggestion and planned. Exposure to in-store stimuli such as POP displays, price-off sales promotions, coupons and sampling, in-store siting, on-shelf product placements and demonstrations can lead to impulse buying decisions significantly (Abratt & Goodey, 1990). Kollat and Willett (1967) contend that in-store stimuli remind the customers of their present or future needs. Impulse purchase involves the minimal expenditure of resources like time, physical and mental effort, and money (Ullal et al., 2020; Stern, 1962). A study by Abratt and Goodey (1990) showed customers spend more money than intended, which is against the views of Kollat and Willet that "there is a strong tendency for actual expenditure to approximate spending intentions".

Raju et al. (2015) attributed higher impulse buying behaviour among customers in offline stores due to the gratification they derive through immediate possession or consumption. Prior knowledge about new products complemented by the desire for shopping pleasure and esteem boost impulse buying intention and thus leading to buying behaviour (Harmancioglu et al., 2009).

The determinants of impulse buying are classified as store attributes, customer characteristics, situational factors and product features (Raju et al., 2015). This study takes into consideration the impact of situational and external factors on impulse buying at the checkout area.

1.1. Situational factors

Belk (1975) described situations and recognised personal, environmental and social aspects of retail shopping as situational variables. Situational factors such as store environment, customer mood and impulsivity trait could determine the intensity of consumption impulse experienced (Dholakia, 2000). Substantial research within social psychology indicates positive mood state of customers enhance their sensation-seeking tendency and weaken the prospect of systematic information processing (see Schwarz & Bohner, 1996). Mischel and Mischel (1983) claim that physical proximity could trigger positive memories associated with the product's consumption in the past and are likely to encourage the desire to buy. Park et al. (1989) explored the effect of situational factor "time available for shopping" on unplanned buying and

found a positive relationship between the two. According to Beatty and Ferrell (1998) and Foroughi et al. (2014) time and money availability are important situational factors influencing the urge to buy impulsively and eventually making an impulse purchase. Innovations such as credit cards (Ullal et al., 2021; Omar & Kent, 2001; Bhakat & Muruganantham, 2013; Bhuvaneswari & Krishnan, 2015), availability of online stores 24 hours a day (Pradhan, 2016) have induced impulse purchase.

Rook (1987) argued that perceived impulse buying intensity and the ability to control the impulses vary among customers. Kacen and Lee (2002) stated that independent customers are more impulse buying oriented as compared to dependent customers. "Highly impulsive buyers are more likely to experience spontaneous buying; their shopping lists are more "open" and receptive to sudden, unexpected buying ideas" (Rook & Fisher, 1995, p. 306). Bell et al. (2011) point out the variation in pricing, variety, location and store ambience among retail formats could lead to disparity in in-store buying decisions. Pradhan (2016) examined the factors persuading impulse buying in Kathmandu supermarkets and found reference groups (family and friends) as one of the significant attributes triggering impulse purchase. Luo (2005) made a contrasting conclusion about the behaviour of customers where their urge to buy impulsively increased during the presence of peer customers while it decreased during the presence of family members. Based on the above discussion, we hypothesise:

H_1: Situational factors contribute positively to impulse buying at the retail checkout.

1.2. External stimuli

Applebaum (1951) was one of the early researchers who suggested in-store stimuli such as display, pricing, sales conversations and demonstrations as a catalyst for impulse purchase by the customers. Bhakat and Muruganantham (2013) mentioned lighting, layout, fixtures, colour, sound, odour, floor coverings and behaviour of staff influencing the retail store atmosphere. Youn and Faber (2000) described external stimuli as specific triggers connected with shopping and managed by marketers to entice customers to purchase action. It includes dealing with shopping environment (i.e. Store ambience, size, design and format) and marketing environments such as sales and advertising activities (Bhakat & Muruganantham, 2013). Piron (1991) points to four dimensions of stimuli connected with impulse buying viz (1) response to marketing reminders or recommendations (Stern, 1962), (2) manipulation of store atmosphere (Kotler, 1974), POP display (see Shimp & DeLozier, 1986) and product positioning (Berkman & Gilson, 1986), (3) non-satisfactory or unavailable planned purchases (Iyer & Ahlawat, 1987), and (4) customer-generated non-environmental persuaded stimulation.

Customers also face an urge to make an impulse purchase when confronted with visual inducements such as promotional offers (Ullal et al., 2021; Dholakia, 2000). Buying impulses essentially activate with individual's sensation and perception determined by external stimuli resulting in a sudden urge to buy (Rook & Hoch, 1985). In large stores stimuli such as merchandise display, price, store environment and the large variety form the key motives for an impulse purchase (Gupta et al., 2009). While in small stores product price continued to be the prime factor for an impulse purchase. Yu and Bastin (2010) deliberated on the role of store employees in motivating and complementing customers, thus leading to impulse buying. Atulkar and Kesari (2018) and Husnain et al. (2019) mentioned that friendly employees play an important role in an impulse purchase. Badgaiyan and Verma (2015) reflected on family influence on impulse buying. Social interaction among customers and with their friends, relatives during the shopping mostly influence them to spend more time in the store and make impulse buying decisions (Baron et al., 1996). Lin and Chen (2012) concluded that impulse buying tendency tends to be higher when the susceptibility to interpersonal influence is more. Based on the above and in line with (Bhakat & Muruganantham, 2013), we hypothesise:

H_2: External stimuli positively lead to impulse buying at the retail checkout.

2. Methodology

2.1. Sample designing and data collection

We have followed a single-stage mall intercept survey method to gather responses much like earlier studies (e.g.: Beatty & Ferrell, 1998; Sharma et al., 2010; Mohan et al., 2013). The respondents include both resident and tourist customers the Indian state of Karnataka.

According to MSME-Development Institute (2016), Karnataka is the "one of the most progressive and industrialized states in the country and is leading States in driving India's economic growth". The state is popularly hailed as Silicon Valley of India with a population of more than 61 million with fourth highest FDI in the country (KPMG, 2018). The state recorded IT exports worth US$ 77.80 billion in the year 2018–19 (IBEF, 2020), and is the 4th largest technology cluster in the world (IBEF, 2018). In terms of Human Development Index, the state shares the nineteenth rank (Global Data Lab, 2019) in the country. The NASSCOM-AT Kearney Report (2017) has identified four major cities in Karnataka viz. Bengaluru (leader location), Mangaluru (challenger location), Hubballi-Dharwad and Mysuru (aspirant location) for its business potential. The study, therefore, considered a sample of 385 customers (convenience sampling method) visiting the leading retail stores such as two supermarkets namely Nilgiris and More, and two hypermarkets i.e. Big Bazaar and Spar in leading Tier I (Bengaluru) and Tier II (Mangaluru, Mysuru, Hubballi-Dharwad) cities in the state of Karnataka, India.

The stores selected for the study have Pan India presence offering a wide range of branded merchandise such as grocery, fruits and vegetables, bakery, meat, dairy

products, poultry, personal care and plastics. Big Bazaar and Spar also offer larger products like textiles, electronics, IT products besides offering products sold in More and Nilgiris stores. Moreover, the stores have a unique layout, large product display, checkout layout and number of counters, choice of products, offers and discounts, trained staff and unique dress code, and are intended to encourage customers' emotions and purchase behaviour. The study explores the influence of situational and external factors on the impulse buying behaviour of customers, particularly at the store checkout area. The constructs and the scale items used in this study are borrowed from the literature study and modified to suit the present study.

2.2. Convergent and discriminant validity

Convergent and discriminant validities are two vital parts of construct validity. The discriminant validity depicts the construct that not only should correlate with related variables, but it also should not correlate with dissimilar and unrelated ones. Convergent validity illustrates by what means the new scale is related to other variables and other measures of the same construct (de Vet et al., 2011; Streiner et al., 2015). The study examines the concurrent validity of the respondents' impulse buying behaviour with situational and external factors, using convergent and discriminant analysis.

Table 1 shows the convergent validity of the situational factors with seven items. Convergent validity examines the strength of the variables.

From Table 1, it is observed that there exists a strong correlation between the variables of situational factors, with p-value 0.000 < 0.005 at 1% significance level.

Table 2. Discriminant validity of situational factors

	Wilks' Lambda	F	df1	df2	Sig.
Money availability	.973	2.641	4	380	.034
Time availability	.946	5.467	4	380	.000
Family influence	.932	6.904	4	380	.000
Social Influence	.921	8.125	4	380	.000
Store environment	.857	15.916	4	380	.000
Credit card availability	.830	19.398	4	380	.000
Momentary Mood	.857	15.868	4	380	.000

Table 1. Correlation between the variables of situational factors

		Money availability	Time availability	Family influence	Social Influence	Store environment	Credit card availability	Momentary Mood
Money availability	Pearson Correlation	1	.424**	.334**	.299**	.235**	.169**	.385**
	Sig. (2-tailed)		.000	.000	.000	.000	.001	.000
	N	385	385	385	385	385	385	385
Time availability	Pearson Correlation	.424**	1	.244**	.252**	.320**	.224**	.329**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385	385
Family influence	Pearson Correlation	.334**	.244**	1	.472**	.184**	.245**	.187**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	385	385	385	385	385	385	385
Social Influence	Pearson Correlation	.299**	.252**	.472**	1	.277**	.335**	.325**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	385	385	385	385	385	385	385
Store environment	Pearson Correlation	.235**	.320**	.184**	.277**	1	.403**	.311**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	385	385	385	385	385	385	385
Credit card availability	Pearson Correlation	.169**	.224**	.245**	.335**	.403**	1	.269**
	Sig. (2-tailed)	.001	.000	.000	.000	.000		.000
	N	385	385	385	385	385	385	385
Momentary Mood	Pearson Correlation	.385**	.329**	.187**	.325**	.311**	.269**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385	385

** Correlation is significant at the 0.01 level (2-tailed).

Table 2 presents that the independent variables of situational factors are significant at 0.000 < 0.005. Hence, the discriminant dimensions are highly significant and show a strong relationship.

Table 3 interprets the convergent validity of external factors with eight items. The strength of the variables is measured through convergent validity.

Table 3 shows a strong correlation between the variables of external factors, with p-value 0.000 < 0.005 at 1% significance level.

Table 4 shows that the independent variables of external factors are significant at 0.000 < 0.005. Hence, the discriminant dimensions are highly significant and show a strong relationship.

Table 4. Discriminant validity of external factors

	Wilks' Lambda	F	df1	df2	Sig.
In-store promotion	.914	8.897	4	380	.000
Offers and discounts	.946	5.439	4	380	.000
Bonus Packs	.899	10.658	4	380	.000
Large merchandise	.898	10.823	4	380	.000
Product placement	.908	9.590	4	380	.000
Peer influence	.924	7.822	4	380	.000
In-store service	.919	8.399	4	380	.000
Friendly employees	.944	5.609	4	380	.000

Table 3. Correlation between the variables of external factors

		In-store promotion	Offers & discounts	Bonus Packs	Large merchandise	Product placement	Peer influence	In-store service	Friendly employees
In-store promotion	Pearson Correlation	1	.499**	.450**	.228**	.334**	.377**	.247**	.276**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000
	N	385	385	385	385	385	385	385	385
Offers and discounts	Pearson Correlation	.499**	1	.680**	.378**	.357**	.449**	.325**	.376**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000
	N	385	385	385	385	385	385	385	385
Bonus Packs	Pearson Correlation	.450**	.680**	1	.470**	.369**	.480**	.302**	.367**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385	385	385
Large merchandise	Pearson Correlation	.228**	.378**	.470**	1	.494**	.397**	.499**	.435**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
	N	385	385	385	385	385	385	385	385
Product placement	Pearson Correlation	.334**	.357**	.369**	.494**	1	.558**	.447**	.428**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000
	N	385	385	385	385	385	385	385	385
Peer influence	Pearson Correlation	.377**	.449**	.480**	.397**	.558**	1	.487**	.421**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000
	N	385	385	385	385	385	385	385	385
In-store service	Pearson Correlation	.247**	.325**	.302**	.499**	.447**	.487**	1	.765**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
	N	385	385	385	385	385	385	385	385
Friendly employees	Pearson Correlation	.276**	.376**	.367**	.435**	.428**	.421**	.765**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385	385	385

** Correlation is significant at the 0.01 level (2-tailed).

2.3. Reliability statistics for the impact of various factors on impulse buying behaviour at the retail checkout

The effect of various factors on impulse buying behaviour among the respondents is measured through 15 variables derived from the literature using a five-point Likert scale.

Table 5. Reliability statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.863	0.865	15

The calculated Cronbach's Alpha of 0.865 (refer Table 5) indicates that there is a very high level of internal consistency for 15 items defined, which intern concludes the scale used to measure factors on impulse buying is behaviour is highly reliable.

3. Data analysis and findings

3.1. Demographic profile

The sample consists of 36.1% of the respondents belonging to the age group of 31–40 years, 35.8% of the respondents from the category 21–30 years, 22.3% of the respondents belong to 41–50 years, 4.7% of the respondents belong to >50 years and 1% of the respondents below 20 years. Majority of the respondents are women (54.5%) followed by men (45.5%). 61.6% of the respondents are married, while 37.4% are unmarried, 1% is widowed and none are divorced. Most of the respondents (35.8%) visited More supermarket, 26.8% visited Spar hypermarket, 26% visited Big Bazaar Supermarket and 11.4% visited Nilgiris supermarket. 37.7% of the respondents predominantly visited the store weekly, 33.8% visited monthly, 9.9% visited occasionally and few (3.1%) visited bi-monthly. Table 6 provides an analysis of the data obtained from the survey.

3.2. Factor analysis of the variables influencing impulse buying behaviour

Factor analysis is conducted to describe the variability among observed, correlated variables into a potentially lower number of unobserved variables.

Kaiser-Meyer-Olkin (KMO) = 0.823 > 0.50 (refer Table 7), indicates that the sample size is sufficient to conduct factor analysis.

Table 6. Demographic profile

		Count	Percentage
Age	<20 years	4	1.00%
	21–30 years	138	35.80%
	31–40 years	139	36.10%
	41–50 years	86	22.30%
	>50 years	18	4.70%
	Total	385	100.00%
Gender	Male	175	45.50%
	Female	210	54.50%
	Total	385	100.00%
Marital Status	Single	144	37.40%
	Married	237	61.60%
	Divorced	0	0.00%
	Widowed	4	1.00%
	Total	385	100.00%
Store visited	More Supermarket	138	35.80%
	Nilgiris Supermarket	44	11.40%
	Big Bazaar Hypermarket	100	26.00%
	Spar Hypermarket	103	26.80%
	Total	385	100.00%
Frequency of visit	Weekly	145	37.70%
	Fortnightly	60	15.60%
	Monthly	130	33.80%
	Bi-monthly	12	3.10%
	Occasionally	38	9.90%
	Total	385	100.00%

Table 7. KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.823
Bartlett's Test of Sphericity	Approx. Chi-Square	2150.057
	Df	105
	Sig.	0.000

The Bartlett's test p-value is 0.000 < 0.05, therefore there exists a correlation between variables and thus factor analysis can be carried out.

Table 8 represents that the first factor accounts for 35.35% of the variance. The second factor accounts for 10.62% of the variance. All the remaining factors are not significant.

Table 8. Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.303	35.353	35.353	5.303	35.353	35.353	4.082	27.212	27.212
2	1.594	10.628	45.980	1.594	10.628	45.980	2.815	18.768	45.980

The variables are loaded into two factors. Table 9 presents the same.

Table 9. Factor loadings for the influencing factors

Factor	Items included	Rotated Component matrix	Name of the factor	Percentage Contribution
Factor 1	Friendly employees	0.742	External factors	35.35%
	In-store service	0.737		
	Peer influence	0.698		
	Offers and discounts	0.697		
	Bonus Packs	0.694		
	Large merchandise	0.687		
	Product placement	0.640		
	In-store promotion	0.509		
Factor 2	Time availability	0.709	Situational factors	10.62%
	Family influence	0.642		
	Money availability	0.638		
	Social Influence	0.619		
	Momentary Mood	0.592		
	Credit card availability	0.474		
	Store environment	0.468		

The antecedents of impulse buying are classified into external and situational factors. Among the two, the external factors emerged to be the leading determinant of impulse buying behaviour at the retail checkout with the factor loading 35.35%. Also, variables such as "friendly employees" and "in-store service" under external factors are found to highly influence the impulse buying behaviour. Whereas in situational factors, "time availability" is found to have highest bearing on the impulse buying behaviour.

3.3. Impact of situational and external factors on impulse buying behaviour

Multiple regression analysis was performed by considering seven and eight factors concerning situational factors and external factors as independent variables and impulse buying behaviour "Make a spontaneous purchase at the checkout area" as the dependent variable.

H_1: Situational factors contribute positively to impulse buying at the retail checkout.

Table 10. Influence of situational factors on impulse buying

SL. NO	Independent Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	0.183	0.323		0.567	0.571
1	Money availability	−0.074	0.061	−0.065	−1.226	0.221
2	Time availability	−0.003	0.070	−0.002	−0.036	0.971
3	Family influence	0.054	0.066	0.043	0.827	0.409
4	Social influence	0.085	0.062	0.074	1.371	0.171
5	Store environment	0.197	0.062	0.162	3.170	0.002*
6	Credit card availability	0.215	0.048	0.225	4.439	0.000**
7	Momentary Mood	0.318	0.063	0.257	5.008	0.000**
A. Dependent Variable: Make a spontaneous purchase at the checkout area						

Note: Significant at: *0.05, ** 0.01 levels.

Table 11. Model summary

R	R Square	Adjusted R Square	P-value
0.507	0.257	0.244	0.000**

Table 10 provides the standardised beta coefficients and p-value for the factors causing impulse buying behaviour. The result shows that among the seven factors, three factors were statistically significant, with a p-value less than 0.05. They are (1) "Store environment" (β = 0.162, p = 0.002), (2) "Credit card availability" (β = 0.225, p = 0.000) and (3) "Momentary Mood" (β = 0.257, p = 0.000). Other factors have a low impact on impulse buying behaviour. However, they are not statistically significant.

Table 11 gives the adjusted R square value for impulse buying behaviour. The overall impact of these factors on the level of impulse buying was 24.4%. So, the hypothesis H_1 is accepted.

H_2: External stimuli positively lead to impulse buying at the retail checkout.

Table 12 provides the standardised beta coefficients and p-value for the factors causing impulse buying behaviour. The result shows that among the eight factors, three factors were statistically significant, with a p-value less than 0.05. They are (1) "In-store promotion" (β = 0.123, p = 0.032), (2) "Offers and discounts" (β = 0.142, p = 0.041) and (3) "Large merchandise" (β = 0.152, p = 0.016). Other factors have a low impact on impulse buying behaviour. However, they are not statistically significant.

Table 12. Influence of external factors on impulse buying

Sl No	Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	0.835	0.327		2.554	0.011
1	In-store promotion	0.144	0.067	0.123	2.154	0.032*
2	Offers and discounts	0.191	0.093	0.142	2.047	0.041*
3	Bonus Packs	0.168	0.094	0.128	1.794	0.074
4	Large merchandise	0.183	0.075	0.152	2.429	0.016*
5	Product placement	0.076	0.084	0.057	0.909	0.364
6	Peer influence	0.109	0.080	0.089	1.368	0.172
7	In-store service	0.086	0.100	0.069	0.859	0.391
8	Friendly employees	0.026	0.091	0.022	0.285	0.776
a. Dependent Variable: Make a spontaneous purchase at the checkout area						

Note: Significant at: *0.05, ** 0.01 levels.

Table 13. Model summary

R	R Square	Adjusted R Square	P-Value
0.378	0.143	0.125	0.000**

Table 13 gives the adjusted R square value for impulse buying behaviour. The overall impact of these factors on the level of impulse buying was 12.5%. So, the hypothesis H_2 is accepted.

4. Managerial implications

Retail checkout significantly influences the overall evaluation of customer store service and shopping experience. This study reveals some important findings on impulse buying at the retail checkout area. First, not all the product categories at the checkout area receive the same attention and urge to buy impulsively. The results of the study indicate that chocolates and personal care products are often bought by the customers impulsively, while other product categories such as ready to eat foods, Tobacco products, soft drinks, batteries, kitchen accessories, sports goods, stationery items and toys are rarely bought items. Moreover, the shoppers are found to be health-conscious by avoiding frequent purchases of tobacco products, soft drinks, ready to eat foods and chocolates. The results also suggest that store managers need to carefully plan the visual merchandising of the above product categories at the checkout area to gain the attention of more buyers and pursue them to impulse purchase.

Second, the regression analysis of situational construct suggests that Indian shoppers are influenced by store environment, momentary mood, and credit card availability. Yoo et al. (1998) and Cottet et al. (2010) showed that factors such as store design, lighting, colour, air quality, music and decoration contribute to the pleasant mood which in turn lead to impulse purchase behaviour. Credit card companies encourage customers to shop more and earn rewards. The increased usage of the credit cards by customers aids the retailers to boost their revenue through impulse sales. Retail stores should focus on cobranding their stores with leading credit card companies as a sales strategy.

Third, the in-store promotion, attractive offers and discounts, and large merchandise have emerged to be leading contributors to impulse buying under the external factors. Indian Retailers continues to woo shoppers by offering mouth-watering deals. This has heightened the shoppers' tendency to actively seek offers and discounts at every point of purchase. Thus, last-minute sales can be achieved by keeping the prices low, offering cashback and deep discounts. Online players such as Amazon and Flipkart have been undercutting the prices to drive traffic to their websites. To stay competitive, offline retailers need to consistently offer quality in-store service besides keeping the prices low.

Though situational factors like money and time availability, family and social influence are important antecedents of impulse buying behaviour inside the store, our study shows that these variables do not contribute to impulse buying at the retail checkout in specific. This reflects weak impulse buying at the checkout, which is reflected in the purchase of two product categories out of ten categories available. Similarly, external factors such as bonus packs, product placement, peer influence, in-store service, and friendly employees did not facilitate impulse buying at the checkout. During the survey, it was observed that the checkout area in the above stores is generally crowded and the shoppers were in a hurry to exit the billing counter. The customers were also busily engaged in observing the queue movement, and the other lines at the checkout, which validates Maister (1985) propositions about the "The Psychology of waiting lines". The interaction between customers and employees were minimal at the checkout area, as the billing staff were busy at their work and other store staffs were present near the aisles managing the inventory. This also could have affected the impulse buying at the checkout in specific.

Conclusions

Preceding studies on impulse buying in retail stores is deeply ingrained in the western community and developed economies, while in developing countries is limited. Moreover, the literature on impulse buying particularly at the checkout area is very limited. The results of the study will broaden the scope of impulse buying literature in India and other developing nations. Our study shows that

impulse buying at the retail checkout is weak. Although the prior research identified important determinants of impulse buying in the store, our study shows that the Indian consumers are price and value-conscious and less impulsive while waiting in the queue at the checkout area. The customers often make healthy product choices at the checkout and are more focused on queue rather than on the retail shelves at the checkout area. Researchers have argued in the past that the comparison of factors significant to impulse buying behaviour is limited. While the situational and external factors have a bearing on the impulse buying behaviour at the checkout, our study hasn't considered the impact of impulse buying tendency. Further investigation could include this and bring out an integral model on impulse buying behaviour.

Author contributions

Below are the authors' contributions to this study:

- Vinish P wrote the first draft of the article, validated the research methodology, prepared the questionnaires, collected data, interpretated the result and wrote the final manuscript.
- Prakash Pinto validated the research methodology, collected data, supervised the data analysis and interpretation, revised the manuscript.
- Iqbal Thonse Hawaldar supervised and validated the results and discussions and the final manuscript preparation.
- Slima Pinto collected data, conducted data analyses, and interpreted the result.

Disclosure statement

The authors do not have any conflict of interest.

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