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IMPULSE BUYING BEHAVIOUR IN THE FMCG SECTOR: A STUDY OF BEHAVIOURAL BIASES WITH PRICE PERCEPTION AS A MEDIATING VARIABLE IN ERNAKULAM CITY

ABSTRACT

Digital technologies are transforming the retail landscape, with consumer behaviour increasingly shaped by psychological factors rather than actual necessity. In dynamic digital marketplaces, elements such as urgency, popularity, and social influence often drive unplanned purchases. Understanding these evolving patterns is essential for advancing responsible and sustainable consumption practices within contemporary retail environments.

This study investigates the impact of behavioural biases (Fear of Missing Out (FOMO) and Herd Behaviour) on fast-moving consumer goods (FMCG) impulse buying, focusing on the mediating role of price perception. Addressing a gap in literature dominated by external marketing triggers, this research explores internal consumer price justification. Analysing survey data from 106 respondents in Ernakulam City via path mediation, findings reveal that price perception partially mediates this relationship. Behavioural biases not only directly drive impulse purchases but actively distort financial logic; consumers experiencing social pressure or urgency rationalize their decisions by artificially perceiving prices as fair or “worth it,” effectively overriding objective valuation.

The study concludes that creating a sustainable digital marketplace necessitates systemic change. Given that individual rationality is often undermined by aggressive digital marketing, policymakers and businesses need to promote transparent pricing and regulate manipulative digital cues. Such reforms are essential for fostering an ethical retail environment that supports informed decision-making within the digital context.

1. INTRODUCTION

The Fast-Moving Consumer Goods (FMCG) sector represents a high-frequency, low-involvement market where purchase decisions are often made quickly with minimal deliberation. Traditionally, consumers in such markets were assumed to behave rationally, evaluating price and necessity before making purchases. However, insights from behavioural economics challenge this assumption, showing that decisions are frequently influenced by cognitive biases, emotions, and situational cues.

In modern retail environments, particularly digital platforms, these influences are significantly amplified. Techniques such as limited-time discounts, ‘only a few left’ alerts, and popularity indicators are widely used to shape consumer behaviour. Large-scale events such as the Amazon Great Indian Festival, along with platforms like Blinkit and Swiggy Instamart, create continuous purchase triggers through instant access, time-bound offers, and perceived convenience, encouraging frequent and unplanned buying beyond actual need. These strategies activate behavioural biases such as Fear of Missing Out (FOMO) and herd behaviour, encouraging rapid and unplanned decisions.

A crucial yet underexplored mechanism in this process is how behavioural biases influence consumer price perception, leading to cognitive price justification. Rather than evaluating prices objectively, consumers reinterpret price cues such as discounts, perceived savings, and popularity signals to rationalize impulsive purchases.

Such behaviour has important implications for sustainability, as bias-driven consumption can contribute to over-purchasing and inefficient resource use. Against this backdrop, the present study examines the impact of behavioural biases on impulse buying, with a specific focus on the mediating role of consumer price perception, to better understand and promote more responsible consumption practices.

1.2. SIGNIFICANCE OF THE STUDY

This study is significant as it advances the understanding of impulse buying by integrating behavioural biases with consumer price perception. It demonstrates how FOMO and herd behaviour influence not only purchase decisions but also the process of post-purchase cognitive justification, where consumers reinterpret price to justify their purchase decisions. By positioning price perception as a mediating factor, the study offers a more nuanced explanation of decision-making beyond traditional stimulus-based models.

Furthermore, the research highlights how such distorted price perception can normalize unnecessary purchases, leading to overconsumption and unsustainable consumption patterns, aligning with Sustainable Development Goal 12 (SDG 12: Responsible Consumption and Production). By linking behavioural insights with retail practices, the study emphasizes the need for transparent pricing and ethical marketing, contributing to a more informed, balanced, and sustainable marketplace.

1.3. OBJECTIVES OF THE STUDY

1. To assess the prevalence and intensity of behavioural biases (FOMO and Herd Behaviour) across different age demographics in Ernakulam City.
2. To analyse the direct impact of behavioural biases on impulse buying behaviour in the FMCG sector.
3. To examine how behavioural biases influence consumer price perception.
4. To evaluate the mediating role of price perception in the relationship between behavioural biases and impulse buying behaviour.
5. To propose recommendations for promoting sustainable consumption and ethical marketing practices in retail environments.

2. LITERATURE REVIEW

Babu et al. (2026) explored purchase intention in flash sales using the Theory of Planned Behaviour, highlighting FOMO as a central psychological factor. Urgency and limited availability were found to elevate FOMO, significantly shaping consumer decisions. The findings suggest that emotional pressure often outweighs rational evaluation.

Hamimah et al. (2025) analysed the impact of scarcity and hedonic value on impulse buying with FOMO as a mediating factor. Both variables were shown to increase FOMO, which subsequently led to higher impulsive purchases. Emotional appeal and limited availability emerged as key drivers of impulse buying.

Tooy et al. (2025) analysed how FOMO influenced impulse buying through purchase intention among fast-food consumers. FOMO was found to significantly increase purchase intention, which in turn led to impulsive purchases. The findings indicate that the effect of FOMO is indirect and mediated through consumer intention.

Xu, Song, & Fong (2025) focused on perceived price fairness in the context of sustainable consumption. Price perception functioned as a mediating factor, influencing consumer

acceptance and trust. The results emphasize the role of perceived value in encouraging responsible purchasing behaviour.

Jamali (2025) examined the relationship between brand image and consumer behaviour, with price perception acting as an intermediary mechanism. Consumer decisions were found to depend more on perceived value than actual price. Price perception played a crucial role in shaping purchase evaluation and justification.

Amasuba & Apriani (2024) investigated the effects of price discounts, time pressure, and price perception on impulse buying in live commerce. Urgency-driven factors strongly influenced impulsive purchases, while favourable price perception further encouraged buying behaviour.

3. Research Methodology

The study adopts a quantitative, cross-sectional, and analytical research design. A combination of purposive and convenience sampling techniques was employed, with a total of 106 respondents from Ernakulam City. Primary data were collected using a structured questionnaire. A 7-point Likert scale (Ibrahim, 2024) was used for psychological and perceptual constructs, and a 5-point frequency scale was used for behavioural outcomes. Each construct was measured using four items capturing the following dimensions:

Table 3.1: Measurement Dimensions

Variable	Underlying Dimensions
FOMO	Emotional discomfort; Anticipated regret; Scarcity-driven urgency; Social comparison
Herd Behaviour	Popularity-based trust; Informational influence; Personal influence; Trend-following tendency
Consumer Price Perception	Discount-based value perception; Social price justification; Trend-based premium acceptance; Deal attractiveness
Impulse Buying Behaviour	Lack of planning; Stimulus-driven buying; Deviation from intention; post-purchase regret

Data Analysis Techniques

Data were analysed using JASP (version 0.96). The following techniques were applied:

- Reliability Analysis (Cronbach's Alpha)

- Descriptive Statistics (Mean and Standard Deviation)
- Cross-tabulation Analysis
- Correlation Analysis
- Multiple Linear Regression Analysis
- PROCESS Mediation Analysis

3.2. HYPOTHESES

H1

H₀: Behavioural biases have no significant impact on impulse buying behaviour.

H₁: Behavioural biases have a significant positive impact on impulse buying behaviour.

H2

H₀: Behavioural biases do not significantly influence consumer price perception.

H₂: Behavioural biases significantly influence consumer price perception.

H3

H₀: Price perception does not mediate the relationship between behavioural biases and impulse buying behaviour.

H₃: Price perception mediates the relationship between behavioural biases and impulse buying behaviour.

4. THEORETICAL AND CONCEPTUAL FRAMEWORK

Theory & Key Citation	Application to the Study
Social Comparison Theory (Festinger, 1954)	Explains how consumers compare themselves with others, leading to FOMO and herd behaviour in purchase decisions.
Loss Aversion (Kahneman & Tversky, 1979)	Explains why the fear of missing out on deals or trends drives urgency and impulsive purchasing.
Bandwagon Effect (Leibenstein, 1950)	Describes how consumers rely on popularity cues, assuming products are valuable because others are buying them.
Cognitive Dissonance Theory (Festinger, 1957)	Explains how consumers reinterpret prices to justify impulsive purchases and reduce internal conflict.

Instant Gratification (Mischel, Ebbesen, & Zeiss, 1972)	Explains how immediate emotional satisfaction drives impulse buying, overriding rational evaluation.
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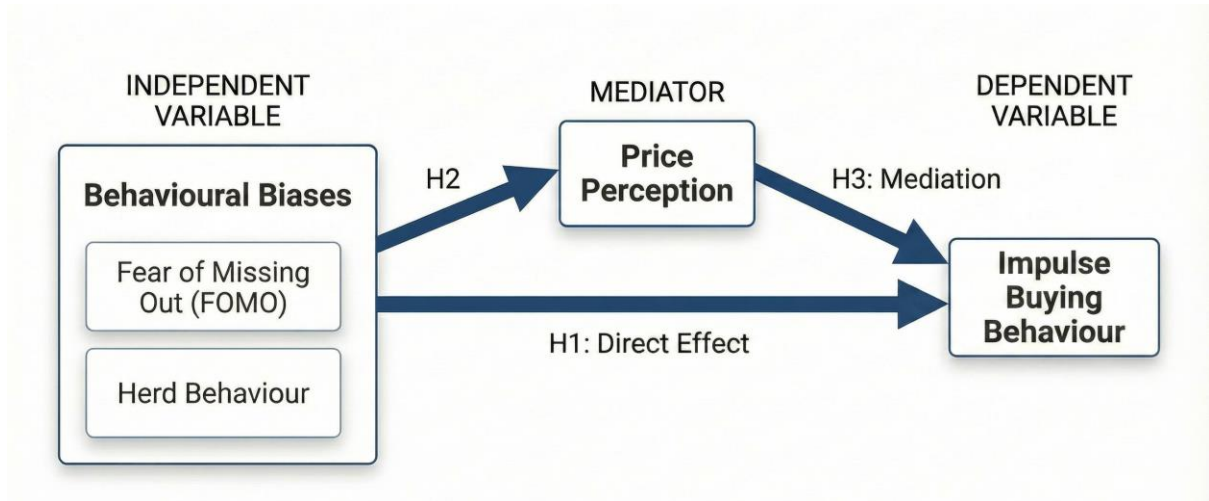


Figure 4.1: Diagrammatic Representation of the Conceptual Framework and Hypotheses

5. DATA ANALYSIS AND INTERPRETATION

5.1. Behavioural Bias Analysis

Table 5.1: Overall Intensity of Behavioural Biases

Variable	Mean	Std. Deviation	Intensity Level
FOMO	3.56	1.75	Moderate
Herd Behaviour	2.83	1.00	Moderate

Table 5.2: Behavioural Bias Levels Across Age Groups (n=106)

Age Group	n	FOMO Mean (SD)	Herd Behaviour Mean (SD)	Intensity
18–25	45	4.53 (0.97)	3.36 (0.44)	High
26–35	15	3.93 (1.89)	3.17 (0.57)	Moderate
36–45	13	4.29 (1.09)	3.06 (0.53)	Moderate
46–55	22	1.61 (0.38)	1.90 (0.49)	Low
56 & above	11	2.07 (1.36)	1.84 (0.72)	Low

Behavioural biases are highest among younger consumers (18–25) and decline significantly with age, indicating greater susceptibility to digital and social influence among younger groups.

5.2. Reliability Analysis

Variable	Cronbach's Alpha
FOMO	0.957
Herd Behaviour	0.855
Price Perception	0.966
Impulse Buying	0.942

Interpretation: All constructs show high internal consistency ($\alpha > 0.70$), indicating reliable measurement.

5.3. Correlation Matrix

Variable	FOMO	Herd	Price	Impulse
FOMO	1			
Herd	0.894***	1		
Price	0.883***	0.815***	1	
Impulse	0.874***	0.898***	0.880***	1

Note: *** $p < .001$

Interpretation: All variables show strong positive correlations ($r > 0.80$, $p < .001$), confirming they move in the same direction and providing initial support for all hypotheses.

5.4. Regression Analysis

Model 1: Behavioural Biases on Impulse Buying

Variable	β	p-value	R^2
Behavioural Bias	0.904	<0.001	0.816

Interpretation: Behavioural biases have a strong and significant positive effect on impulse buying.

Model 2: Behavioural Bias on Price Perception

Variable	β	p-value	R ²
Behavioural Bias	0.881	<0.001	0.777

Interpretation: Behavioural biases significantly influence consumer price perception.

Model 3: Behavioural Bias and Price Perception on Impulse Buying

Variable	β	p-value
Behavioural Bias	0.573	<0.001
Price Perception	0.375	<0.001

Interpretation: Both behavioural biases and price perception significantly influence impulse buying, with the reduced effect of biases indicating mediation. The model also demonstrates high explanatory power ($R^2 = 0.848$), showing that these variables strongly explain impulse buying behaviour.

5.5. Mediation

Effect Type	Path	β (Estimate)	p-value	Result
Path a	Behavioural Bias → Price Perception	1.323	< .001	Significant
Path b	Price Perception → Impulse Buying	0.191	< .001	Significant
Direct Effect (c')	Behavioural Bias → Impulse Buying	0.439	<0.001	Significant
Indirect Effect (a x b)	Behavioural Bias → Price Perception → Impulse Buying	0.253	<0.001	Significant
Total Effect	Behavioural Bias → Impulse Buying	0.692	<0.001	Significant

Note: Confidence intervals are based on bootstrapping (95%).

Interpretation: Both direct and indirect effects are statistically significant ($p < 0.001$), indicating that consumer price perception partially mediates the relationship between behavioural biases and impulse buying behaviour.

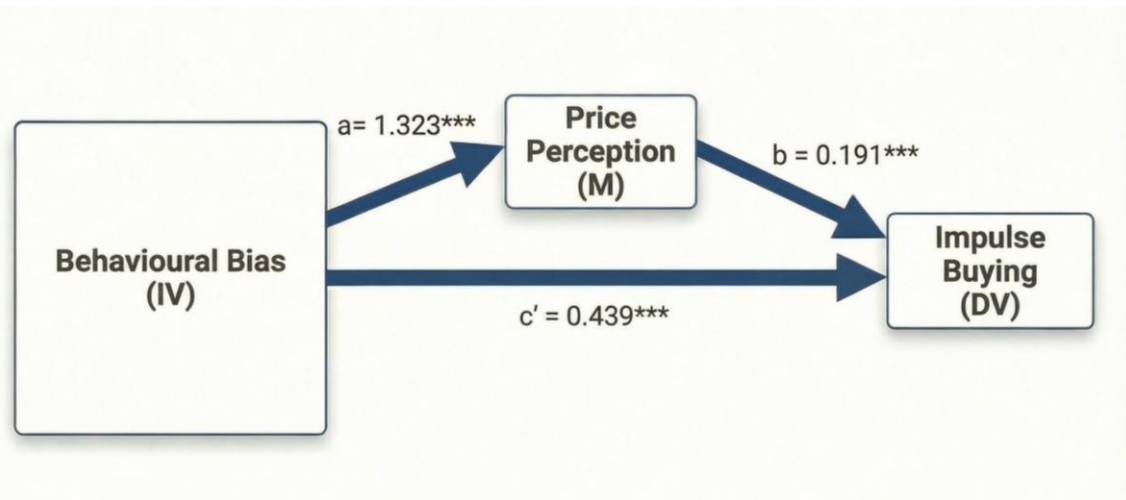


Figure 2: Mediation Effects

5.6 SUMMARY OF HYPOTHESES TESTING

Hypothesis	Statement	Result	Status
H1	Behavioural biases have a significant positive effect on impulse buying behaviour	$\beta = 0.904$, $p < .001$	Supported
H2	Behavioural biases have a significant influence on consumer price perception	$\beta = 0.881$, $p < .001$	Supported
H3	Consumer price perception mediates the relationship between behavioural biases and impulse buying behaviour	Indirect Effect = 0.253, $p < .001$	Supported (Partial)

6. KEY FINDINGS

1. Demographic Insights

The sample is dominated by young consumers (18–25: 42.5%), with a balanced gender distribution and a majority of employed respondents. Most consumers purchase FMCG products on a weekly basis, indicating frequent exposure to retail stimuli and promotional environments.

2. Behavioural Constructs and Consumer Decision-Making

- FOMO exists at a moderate level, with 42% of respondents experiencing deal-related anxiety. Scarcity cues such as limited-time offers create urgency, especially among younger consumers, while social comparison shows weaker influence, indicating FOMO is more situational than social.

- Herd behaviour is moderate, with online reviews (54.8%) and friend recommendations acting as key influencers. Mass trends and product popularity show mixed impact.
- Consumers generally do not strongly justify higher prices based on popularity or trends, but large discounts create divided perceptions of value.
- Impulse buying is present but not extreme. Consumers report planning behaviour, yet show moderate deviation from shopping lists and occasional post-purchase regret.

3. Age-wise Behavioural Differences

Younger consumers (18–25) show the highest levels of FOMO and herd behaviour, while older groups (41+) exhibit predominantly low levels. Middle-aged groups display mixed responses, indicating a shift from socially influenced to more rational decision-making. Younger consumers are more exposed to digital cues and peer influence, making them more susceptible to behavioural biases.

4. The Rationality Paradox

A key finding is the presence of a “rationality paradox.” While 60.4% of consumers report checking necessity before purchasing, many still engage in impulse buying during promotions. This reflects an intent–action gap, where perceived rationality differs from actual behaviour.

5. Behavioural Bias–Price Justification Mechanism

The findings reveal that behavioural biases influence impulse buying not only directly but by shaping consumer price perception, leading to cognitive price justification. Consumers reinterpret price cues, such as discounts and urgency signals, to rationalize impulsive purchases, suggesting that decisions are driven more by perceived justification than by actual value. Thus, impulse buying reflects not a lack of rationality, but a redefinition of rationality under behavioural influence.

6.2. PRACTICAL IMPLICATIONS FOR SUSTAINABLE CONSUMPTION

The findings highlight the need for behavioural interventions that address cognitive price justification and promote responsible consumption aligned with SDG 12 (Responsible Consumption and Production). Rather than suppressing consumer emotion, the focus should be on redesigning retail environments to reduce manipulative cues and support informed decision-making.

For consumers, adopting “cognitive cooling” habits such as a 24-hour delay before purchase, checking unit prices, and recognizing triggers like FOMO can shift decisions toward actual value rather than perceived urgency.

For businesses, integrating mindful nudges can promote ethical engagement. These may include prompts such as “Do you really need this?” or “You have viewed this item multiple times—take a moment before deciding.” Displaying real-time spending summaries, cart value alerts, and transparent discount justifications can further reduce impulsive behaviour while building trust.

For policymakers, strengthening regulations on misleading scarcity cues, standardizing unit pricing, and enforcing transparency in digital retail remain essential.

Ultimately, promoting ethical consumerism through behavioural awareness and transparent retail practices can transform impulsive consumption into more mindful and sustainable decision-making.

6.3. CONCLUSION

This study reveals that impulse buying in modern FMCG markets is not merely a reaction to external stimuli, but a cognitively justified behaviour shaped by behavioural biases and price perception. By establishing consumer price perception as a mediating mechanism, the research highlights how individuals reinterpret price to rationalize emotionally driven decisions. This redefines consumer rationality, not as objective evaluation, but as perception-driven justification under behavioural influence. The findings underscore the growing power of digital retail environments in shaping consumption patterns, particularly among younger consumers. In this context, promoting transparency, behavioural awareness, and ethical retail design becomes essential. Ultimately, building a sustainable marketplace requires both smarter systems and informed and self-aware consumers.

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