

**FACTORS INFLUENCING ONLINE IMPULSE BUYING BEHAVIOUR: AN
EMPIRICAL STUDY FROM NORTHERN INDIA**

A Thesis

**Submitted in Fulfilment of the Requirements for the Degree of
DOCTOR OF PHILOSOPHY**

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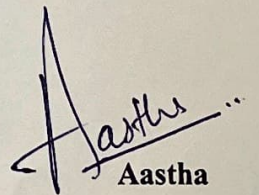
THAPAR INSTITUTE
OF ENGINEERING & TECHNOLOGY
(Deemed to be University)

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July, 2025

Declaration

I, Aastha hereby declare that the thesis entitled, “**Factors Influencing Online Impulse Buying Behaviour: An Empirical Study From Northern India**” submitted to Thapar Institute of Engineering and Technology (Deemed to be University), Patiala, in fulfilment of the requirements for the award of the degree of **DOCTOR OF PHILOSOPHY** in **MARKETING**, is a record of the original research work carried out by me under the guidance and supervision of **Dr. Apurva Bakshi**, Associate Professor, School of Humanities and Social Sciences, Thapar Institute of Engineering and Technology. The matter embodied in this thesis has not been submitted in part or full to any other institute for the award of any degree.

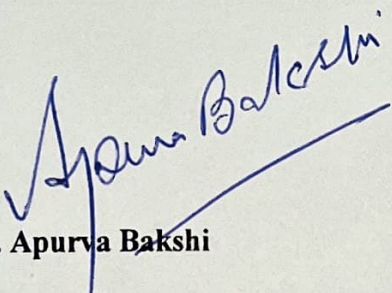


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Certificate

This is to certify that the thesis entitled, "**Factors Influencing Online Impulse Buying Behaviour: An Empirical Study From Northern India**" which is being submitted by Ms. Aastha Kathuria in fulfilment of the requirements for the award of the degree of **DOCTOR OF PHILOSOPHY in MARKETING**, is a record of the candidate's original research work carried out under my supervision and guidance. The matter embodied in this thesis has not been submitted in part or full to any other institute for the award of any degree.



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Thapar Institute of Engineering and Technology

Place: Patiala, Punjab, India

Dedication

*With profound love and gratitude, I dedicate this thesis to my beloved mother, **Mrs. Manisha Kathuria**. Her unwavering support, endless sacrifices, and unconditional love have been the foundation of my strength and perseverance. She has been my greatest source of inspiration, constantly encouraging me to strive for excellence and face every challenge with resilience. Her faith in me has been my guiding light, and her unwavering belief in my dreams has given me the courage to pursue them. This achievement is as much hers as it is mine.*

Thank you, Mom, for everything.

Aastha

Acknowledgement

First and foremost, I extend my heartfelt gratitude to the Almighty for His boundless blessings, unwavering guidance, and strength that have sustained me throughout this research journey. His grace has been my source of perseverance and resilience, making this endeavor possible.

I extend my sincerest appreciation to my supervisor, **Dr. Apurva Bakshi** (Associate Professor, School of Humanities and Social Sciences, Thapar Institute of Engineering and Technology), whose unwavering support, insightful guidance, and constant encouragement have been invaluable. His profound knowledge, patience, and constructive feedback have shaped this research and enriched my academic journey. It has been an honor to work under his supervision.

I am also profoundly grateful to my institute, Thapar Institute of Engineering and Technology (TIET), Patiala, for providing the necessary resources, academic environment, and infrastructure to conduct this study. My sincere thanks go to **Dr. Padmakumar Nair** (Director and Professor, TIET), **Prof. R. S. Kaler** (Dean of Research & Sponsored Projects, TIET), **Dr. S.S Bhatia** (Professor and Head, School of Humanities and Social Sciences, TIET).

I would also like to extend my heartfelt thanks to the members of my Doctoral Committee, whose valuable insights and constructive suggestions have strengthened my research. My sincere appreciation goes to **Dr. Subhas Chandra Bose** (Associate Professor, School of Humanities and Social Sciences, TIET), **Dr. Shipi Tyagi** (Assistant Professor, School of Humanities and Social Sciences, TIET), and **Dr. Ankit Mahindroo** (Assistant Professor, LM Thapar School of Management, TIET) for their thoughtful feedback and encouragement.

A special mention to **Dr. Ravi Kiran** (Professor, School of Humanities and Social Sciences, TIET) for their continuous support and facilitation of research activities. **Dr. Rakesh Kumar** (Associate Professor, School of Humanities and Social Sciences, TIET) for refining my research methodology skills and enhancing my analytical approach. I also express my gratitude to the esteemed faculty members of the School of Humanities and Social Sciences, TIET, whose motivation and guidance have been instrumental in my academic growth.

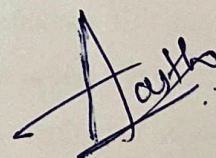
Beyond academia, I am eternally grateful to my parents, **Mrs. Manisha Kathuria** and **Mr. Ravi Kathuria**, for their unconditional love, sacrifices, and unwavering belief in me. Their encouragement has been my greatest source of strength. My heartfelt thanks to my brother,

Mr. Abhishek Kathuria, whose endless support and faith in my abilities have been my pillar of confidence. I am equally grateful to my sister-in-law, **Mrs. Nidhi Kathuria**, for her constant encouragement, warmth, and unwavering belief in my journey.

I am extremely grateful to my childhood friend **CA Neeraj Chhabra** for his steadfast belief in my potential, continuously inspiring me with his encouragement and reminding me that no goal is beyond my reach. My heartfelt appreciation also goes to **Himika Chaudhary** for her unwavering support, as well as to **Matali Mahajan** and **Devshree Bhargava** for the countless conversations and shared moments of laughter that provided comfort throughout this journey. I feel incredibly fortunate to have been surrounded by amazing friends and colleagues whose companionship made this experience truly memorable. Their support, uplifting conversations, and cherished moments of joy have been a source of strength, and I will always treasure the friendships formed during this time.

Lastly, I extend my heartfelt appreciation to all the respondents who participated in the survey. Their time, effort, and cooperation have been instrumental in making this research possible. Words often fall short in capturing the depth of gratitude I feel for this transformative journey. Completing this research is not just an academic milestone but a profoundly meaningful experience one that I will cherish for a lifetime.

With deep appreciation,

 Aastha

Abstract

In the rapidly evolving landscape of digital commerce, online impulse buying behaviour (IBB) has emerged as a critical area of academic inquiry and managerial concern. Despite its growing prevalence, existing research has not fully explored the complex and interconnected factors that influence IBB, particularly how various individual, promotional, website-related, and situational variables interact through consumers' psychological tendencies. Addressing this gap, the present study investigates the multidimensional antecedents of online impulse buying behaviour (IBB), emphasizing the mediating role of impulse buying tendency (IBT).

The research is guided by four key objectives, examining how individual, promotional, website-related, and situational factors affect IBB, and culminates in the development of an integrated conceptual model that places IBT at the core of these relationships.

A proportionate stratified sampling approach was adopted to ensure demographic representation across key Northern Indian regions Punjab, Haryana, Delhi NCR, and Chandigarh. A total of 415 online shoppers, each with a minimum of six online purchases in the past year, participated in the study (165 from Punjab, 140 from Haryana, 90 from Delhi NCR, and 30 from Chandigarh). This sampling strategy enhanced the study's validity, reliability, and regional representativeness.

The study employed a quantitative design, using Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the proposed hypotheses. Results indicate that individual factors such as hedonic motivation and mood states significantly influence IBT but do not directly impact IBB. Promotional factors including discount offers, online reviews, online campaigns, product recommendations, and limited-time deals exert a significant influence on both IBT and IBB. Among website-related features, website aesthetics emerged as a key predictor of both IBT and IBB, while security/privacy and convenience showed partial effects. Regarding situational factors, money availability and credit card usage positively influenced IBB, while time availability showed no significant effect. Mediation analysis confirmed the central role of IBT in linking these factors to IBB.

Theoretically, this study advances the application of the Stimulus-Organism-Response (S-O-R) framework and Self-Determination Theory (SDT), while integrating perspectives from the Competitive Arousal Model and the Consumption Impulse Formation and Enactment Model.

This multi-theoretical approach provides a deeper understanding of the psychological mechanisms driving OIB. Practically, the research offers actionable insights for digital marketers, e-commerce firms, and policymakers by suggesting targeted strategies to stimulate impulse purchases, enhance user experience, and uphold ethical marketing standards.

Despite certain limitations such as geographical scope, cross-sectional design, and reliance on self-reported data the study provides a robust foundation for future research. It encourages further investigation into the evolving nature of consumer behaviour, particularly in response to emerging technologies such as AI, AR/VR, and voice commerce.

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List of Abbreviations

<i>Abbreviation</i>	<i>Full Form</i>
IBT	Impulse Buying Tendency
IBB	Online Impulse Buying Behaviour
S-O-R	Stimulus-Organism-Response
PAD	Pleasure, Arousal and Dominance
CIFE	Consumption Impulse Formation and Enactment
CI	Consumption Impulse
SDT	Self- determination theory
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CMB	Common Method Bias
HTMT	Heterotrait-Monotrait
MAE	Mean Absolute Error
NCR	National Capital Region
PLS SEM	Partial Least Squares Structural Equation Modeling
RMSE	Root Mean Square Error
SPSS	Statistical Package for the social sciences
SRMR	Standardised Root Mean Square Residual
VIF	Variance Inflation Factor
CR	Composite Reliability
FOMO	Fear of Missing Out

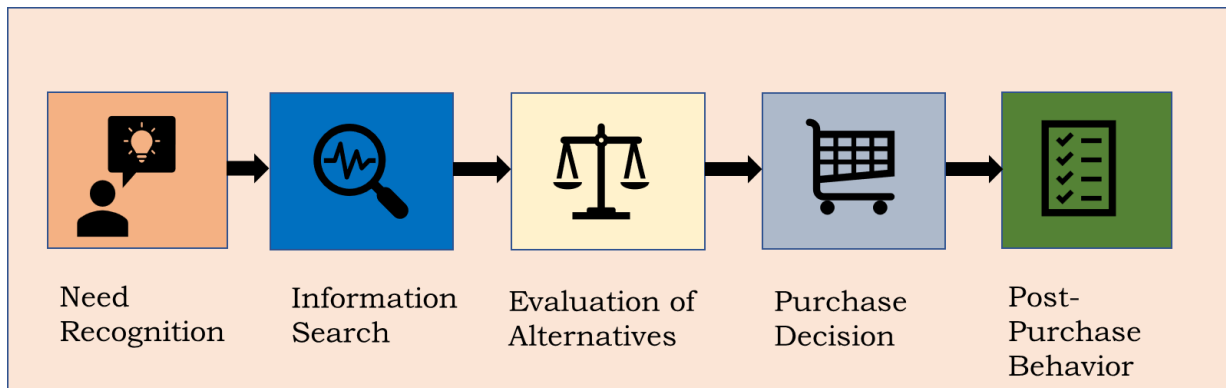
Chapter 1

INTRODUCTION

1.1 Background

Consumer behaviour is the study of how individuals, groups, or organizations select, purchase, use, and dispose of goods, services, experiences, or ideas to satisfy their needs and desires. It encompasses a wide range of activities that go beyond the mere act of buying. Understanding consumer behaviour is crucial for marketers because it provides insights into the factors that drive purchasing decisions, enabling businesses to tailor their strategies to meet consumer needs more effectively (Muniady et al., 2014). This field of study integrates concepts from psychology, sociology, neurology, and economics to analyze how consumers' thoughts, feelings, and actions influence their buying patterns (MacInnis and Folkes, 2010). At its core, consumer behaviour is shaped by both internal and external factors (Rozenkowska, 2023). Internal factors include psychological elements such as motivation, perception, learning, attitudes, and beliefs. These factors determine how consumers interpret and process information, as well as how they form preferences for particular brands or products. External factors also play a significant role in shaping consumer behaviour. These include social influences from family, friends, colleagues, and social media, as well as cultural and societal norms. The impact of social circles is evident in behaviours like word-of-mouth recommendations and peer reviews, which can significantly sway a consumer's purchase decision.

Another crucial aspect of consumer behaviour is the decision-making process that consumers go through when making a purchase. This process typically involves five stages (Figure 1): need recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behaviour (Stankevich, 2017). The process of consumer decision-making starts with recognizing a need or problem, such as wanting a new smartphone or adopting a healthier lifestyle. This awareness leads to an information search, where consumers explore options through online reviews, ads, and recommendations. Next, during the evaluation stage, they compare brands or products based on features, prices, and benefits. After selecting the best option, the purchase is made. Post-purchase behaviour then evaluates satisfaction with the product. Positive experiences can foster brand loyalty and repeat purchases, while negative experiences may result in returns, complaints, or negative feedback.



(Source: Stankevich, 2017)

Figure 1.1 Process of Consumer Behaviour

In recent years, the digital transformation of retail has added new dimensions to consumer behaviour. The rise of e-commerce, social media, and mobile shopping has fundamentally altered how consumers interact with brands and make purchasing decisions (Adeniran et al., 2024). Online platforms provide consumers with vast amounts of information at their fingertips, making them more informed and selective than ever before. This has led to the emergence of new behavioural patterns, such as the increasing reliance on online reviews and the growing importance of convenience in online shopping. Digital channels have also given rise to phenomena like impulse buying, where personalized ads, flash sales, and one-click purchasing options encourage unplanned purchases.

In the rapidly evolving landscape of e-commerce, the concept of Online Impulse Buying has garnered significant scholarly attention. A study conducted by OnePoll (2022) revealed that 73% of respondents acknowledged frequently engaging in Online Impulse Buying, marking a substantial increase from 59% in 2020. This trend highlights the rising prevalence of impulse purchasing behaviours in the digital marketplace. Additionally, the average monthly expenditure on impulse purchases has doubled, reaching \$314 in 2022, compared to \$157 in 2020 (Anoop and Rahman, 2024), underscoring the growing financial impact of unplanned online shopping decisions. Impulse buying in traditional retail settings typically occurs within physical stores, where spontaneous purchasing decisions are largely influenced by in-store stimuli (Rook, 1987). In contrast, Online Impulse Buying takes place on digital commerce platforms, presenting a distinct shopping experience (Rodrigues et al., 2021). This transition from physical to online retail introduces new influencing factors, including the virtual shopping environment, targeted digital marketing strategies, and modifications in the consumer decision-making process (Aragoncillo & Orus, 2018).

Understanding consumer behaviour in this evolving landscape requires businesses to adapt their marketing strategies to the digital environment, particularly as new trends like impulse buying become more prevalent. Marketers must recognize the nuances of online shopping behaviour, such as the importance of website design, user experience, and data privacy concerns, which can significantly influence spontaneous purchase decisions. The prevalence of Online Impulse Buying is also amplified by features such as same-day delivery, exchange offers, and flexible credit options available on electronic, social, and mobile commerce platforms. These conveniences enhance the shopping experience, encouraging consumers to make unplanned purchases (Lamis et al., 2022).

1.2 Impulse Buying Behaviour

Many individuals have experienced returning home with items they never initially planned to purchase. Impulse buying has been widely acknowledged as a critical consumer behaviour within the retail industry, significantly influencing sales and marketing strategies (Verplanken and Sato, 2011). Impulse buying is characterized by a sudden, intense, and often overwhelming urge that compels a consumer to make an immediate purchase decision (Rook, 1987). Building on the conceptualization, Beatty and Ferrell (1998) expanded the definition, describing impulse buying as "an unplanned and spontaneous purchase that occurs without prior intentions to acquire a specific product category or achieve a particular purchasing objective."

Research in psychology has highlighted that automatic information processing serves as a fundamental mechanism driving impulse purchase behaviour. This process involves intuitive and spontaneous decision-making, occurring without the consumer's deliberate or conscious thought (Custers and Arts, 2010). Thus, from a psychological perspective, impulse buying is often difficult to resist, as the emergence of a psychological impulse typically occurs both spontaneously and abruptly, compelling immediate action (Piyush et al., 2010). Rook and Gardner (1993) characterized impulse buying as a spontaneous form of consumer behaviour, marked by rapid decision-making and a strong inclination toward the immediate purchase of a product. Prior research, conducted in both academic and professional contexts, indicates that impulse purchases account for approximately 40% to 80% of total purchases, varying based on the product category (Aragoncillo and Orus, 2017). The earliest investigations into impulse buying can be traced back to research on the studies of consumer buying habits (Rook, 1987). Several years following the initial research, the significance of impulse buying was highlighted by a subsequent study, which revealed that a substantial proportion of retail store sales

originated from unplanned purchases (Clover, 1950). Nonetheless, numerous scholars have contended that defining impulse buying solely in terms of unplanned purchases is overly simplistic. They further assert that, while all impulse purchases are inherently unplanned, not all unplanned purchases qualify as impulsive (Kolatt and Willett, 1969).

The continued significance of early research on impulse buying in offline retail channels is evident through the extensive body of literature available across various academic databases. However, over the past decade, there has been a notable shift in scholarly attention, with researchers increasingly exploring impulse buying behavior within online platforms (Aragoncillo & Orus, 2018; Styvén et al., 2017; Shen & Khalifa, 2012; Rezaei et al., 2016; Venkatesh et al., 2022). This transition highlights the evolving nature of consumer behavior and underscores the growing importance of studying impulse purchasing in digital commerce environments (Feng et al., 2024).

1.2.1 Types of Impulse Buying

Impulse buying is shaped by a diverse range of factors, including economic conditions, personality traits, time constraints, location, and cultural influences. These factors not only differ among various shoppers contemplating the purchase of the same product but may also vary for an individual shopper purchasing the same product in different contexts. This dynamic interplay gives rise to a variety of impulse buying behaviours, which can be broadly categorized into four distinct types (1962) as shown in Figure 1.2.

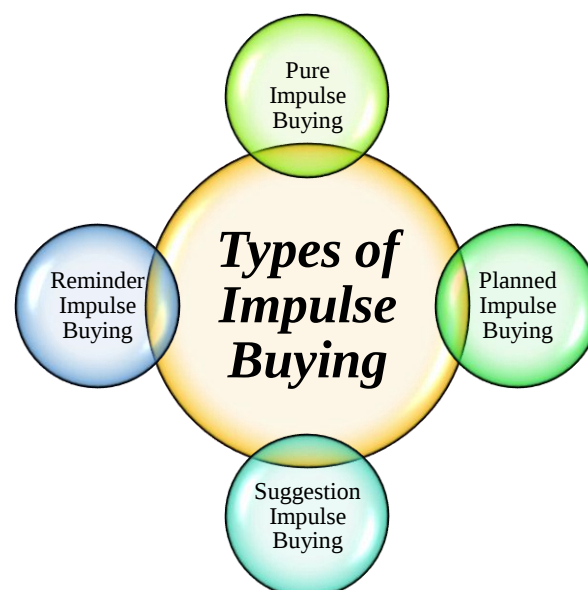


Figure 1.2 Types of Impulse Buying

a. Pure Impulse Buying

The pure impulse purchase, characterized by novelty or a desire for escape, represents a distinct form of impulsive buying that deviates from habitual purchasing patterns. However, such purchases are relatively rare, as consumers, particularly homemakers, often rely on habitual budgeting, preplanning, and shopping routines, which enhance efficiency but limit spontaneity in their buying behaviour.

b. Reminder Impulse Buying

Reminder impulse buying occurs when a shopper encounters a product and recalls depleted stock at home, an advertisement, or prior knowledge, prompting a purchase based on remembered familiarity or a previous intent to buy.

c. Suggestion Impulse Buying

Suggestion impulse buying occurs when a shopper encounters a product for the first time and envisions a need for it without prior knowledge. Unlike reminder impulse buying, it requires an on-the-spot evaluation of the product's quality and function. Unlike pure impulse buying, suggestion purchases can be rational or functional rather than driven purely by emotional appeal.

d. Planned Impulse Buying

Planned impulse buying describes a behaviour where a shopper enters a store with specific purchases in mind, yet remains open to additional, unplanned items based on promotions, discounts, or coupons.

1.3 Impulse Buying Tendency

The tendency to engage in impulse buying differs across consumers and is shaped by their individual traits associated with impulsivity (Rook and Fisher, 1995). Impulse buying tendency (IBT) is defined as the propensity to (1) experience sudden and spontaneous urges to make immediate purchases, and (2) act on these urges with minimal deliberation or consideration of the potential consequences (Beatty and Ferrell, 1998, p.174). Dholakia (2000) stated that Impulse buying tendency (IBT) is often regarded as an inherent trait of individuals, playing a crucial role in impulsive purchasing behaviour. It can quickly prompt consumers to make immediate decisions without careful planning or consideration. Existing literature emphasizes

the importance of considering impulse buying tendency (IBT) for a deeper understanding of impulsive shopping behaviour (Wells et al., 2011). Ahn et al. (2019) stated that Impulse buying tendency is the likelihood of making unplanned, immediate, and spontaneous purchases, in contrast to deliberate and planned purchasing behaviour.

1.4 Factors influencing Online Impulse Buying Behaviour

Impulse buying behaviour is influenced by a combination of internal and external factors (Wansink, 1994). Given its stimulus-driven nature (Rook & Fisher, 1995), heightened exposure to specific external stimuli significantly elevates the probability of engaging in impulsive purchasing (Iyer, 1989). There are different factors that affect online impulse buying behaviour as shown in the Figure 1.3

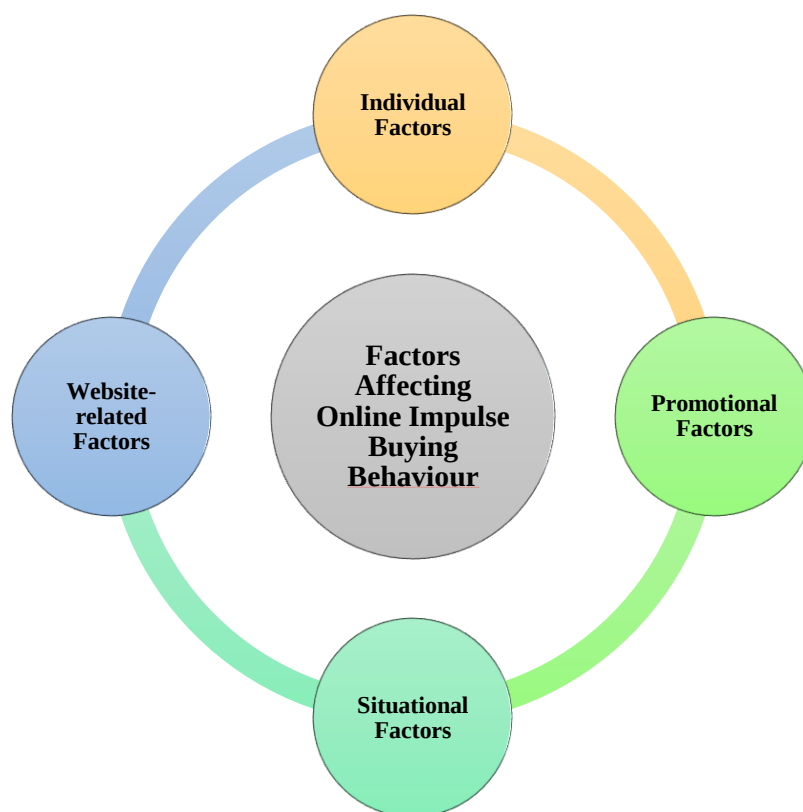


Figure 1.3 Factors affecting online impulse buying behaviour.

a. Individual Factors

Psychologists and scholars assert that individuals' emotions, moods, and affective states significantly influence their behaviour, including their purchasing decisions. This influence is particularly evident in retail environments, where consumers' moods substantially impact their propensity for unplanned purchases (Kaltcheva and Weitz, 2006). Individuals differ in their

ability to perceive and manage their emotional states, with some exhibiting strong regulation of both positive and negative moods. Consequently, understanding how consumers internally experience and process emotions and moods becomes more significant than merely assessing the specific quality of their mood at a given moment. Existing literature consistently emphasizes that individuals are driven by the aspiration to achieve goals, which can be categorized as either hedonic or instrumental. To attain these goals, individuals actively regulate their emotional states. Hedonically oriented individuals strive to sustain a positive mood and avoid negative emotions, whereas those with instrumental goals focus on mitigating potential negative outcomes. Wood (2005) stated that hedonic shopping value is a critical factor in driving unplanned purchasing behaviour.

b. Promotional Factors

External factors influencing impulse buying encompass marketing cues or stimuli strategically designed and managed by marketers to entice consumers into making purchasing decisions (Youn & Faber, 2000). Stimuli within the shopping environment act as triggers that influence consumers' emotional states, which subsequently shape their purchasing behaviour (Mehrabian & Russell, 1974). E-commerce has transformed consumer shopping practices, with online platforms frequently stimulating impulsive buying behaviours through personalized marketing tactics and technological innovations (Chen and Nath, 2016). Based on consumers' previous browsing behaviour, preferences, and interests, online retailers provide a personalized shopping experience by suggesting products that align with their desires (Yoon et al., 2013). Also, the length of time a promotional deal is available plays a significant role in influencing the consumer's purchase intention (Gabler and Reynolds, 2013). Lu and Zhuang (2018), mentions that Large-scale promotions, appealing deals, and offers on bulk products during online shopping festivals by various merchants foster widespread participation and heightened consumer interest in consumption. Lepkowska-White (2004) proposes that retailers can capture the attention of online bargain hunters through prominent displays of product selection, discounts, and exclusive promotions, such as incentives and complimentary gifts. The sensitivity of different consumers to stimuli varies based on their individual dispositions, which subsequently affects their likelihood of engaging in impulsive buying behaviour (Febrilia and Warokka, 2021).

c. Website- related Factors

Online shopping eliminates the constraints of traditional brick-and-mortar stores, increasing the likelihood of impulsive buying. Retailers capitalize on this by integrating multimedia features and enabling 24/7 purchasing, exposing consumers to diverse stimuli that encourage impulsive behaviour (LaRose, 2001). Among various factors influencing online impulse buying, website-related elements are particularly significant. Websites act as essential mediators in the shopping process, enhancing the consumer experience by linking them to products. They are instrumental in building consumer relationships, offering customer support, and transforming visitors into engaged online buyers (Ghose & Dou, 1998). Parboteeah et al. (2009) assert that a website's aesthetic appeal functions as a mood-relevant cue, fostering a pleasurable shopping experience and positively influencing both cognitive and emotional reactions. Zheng et al. (2019) emphasize that visually appealing websites can significantly enhance consumers' browsing experiences while facilitating efficient access to product or service information. Websites are also anticipated to deliver reliable information, protect the privacy of user-submitted data, and guarantee secure transaction processes (Wong & Haque, 2022). Moreover, a reliable and trustworthy shopping environment is considered essential for the success of online retailers (Lin & Chuan, 2013). Consumers perceive a website as more valuable when it offers greater functional convenience. Enhanced ease of use increases customer satisfaction with the website, positively impacting their purchase intentions and propensity for unplanned purchases (Chen et al., 2017).

d. Situational Factors

Situational factors are critical indicators of impulse buying behaviour, encompassing elements related to personal circumstances, store environments, retailer-driven motivational activities, and product attributes. Earlier studies (Mattila & Wirtz, 2008; Chavosh et al., 2011) have highlighted these dimensions as key contributors to impulsive purchasing tendencies. Badgaiyan and Verma (2015) specifically identified situational factors such as consumer-related variables, including the availability of money and time as well as family influence, alongside store-related variables like sales promotions, store environment, employee interactions, and store ambiance, as significant drivers of impulse buying. An individual's situational context, particularly the availability of time and financial resources, is closely associated with impulse buying behaviour (Foroughi et al., 2012).

This study offers a clear and integrative theoretical contribution by drawing upon multiple frameworks to deepen the understanding of online impulse buying behavior. Based on

Stimulus-Organism-Response (S-O-R), Self-Determination Theory (SDT), the Consumption Impulse Formation and Enactment Model, and the Competitive Arousal Model While prior studies have predominantly examined these models in isolation, this research synthesizes their core principles to explore how internal psychological states and external marketing stimuli interact to shape impulse buying tendencies and behaviors. The S-O-R framework provides the structural foundation for examining stimulus-driven responses, while SDT helps explain how intrinsic and extrinsic motivations influence consumer behavior. The Consumption Impulse Formation and Enactment Model offers insight into the formation and execution of impulse urges, highlighting the role of situational and emotional triggers, and the Competitive Arousal Model emphasizes the impact of urgency and scarcity common in limited-time offers on impulsive actions. By combining these perspectives, this study advances theoretical understanding by offering an integrative and empirically tested model that captures the multifaceted nature of impulsive behavior in digital consumer contexts.

1.5 Statement of the Problem

The rapid growth of e-commerce has significantly transformed consumer shopping behaviour, creating a digital environment saturated with stimuli that trigger unplanned and spontaneous purchases. Online impulse buying, characterized by sudden, unreflective purchase decisions, has emerged as a critical domain of academic inquiry and practical relevance due to its implications for marketers, consumers, and the broader digital economy.

Although a substantial body of literature has explored drivers of impulse buying, existing research remains fragmented, often examining individual, promotional, website-related, or situational factors in isolation. The lack of a comprehensive and integrated theoretical model that unifies these domains limits our ability to fully explain the complexity of Online impulse buying in digital environments. In particular, the mediating role of impulse buying tendency (IBT) the inherent predisposition to act impulsively has been underutilized in modeling the path from stimulus exposure to consumer response. This results in theoretical underdevelopment and limited explanatory power in current frameworks.

Most prior studies are also rooted in developed economies, neglecting unique market dynamics in emerging economies like India, where differences in digital literacy, cultural norms, promotional responsiveness, and financial infrastructure create distinct behavioural patterns. As a result, the generalizability and contextual relevance of existing models remain limited.

Theoretically, this study addresses the need for a multi-theoretical and integrative approach. While the Stimulus-Organism-Response framework provides the overarching structure to model how external stimuli affect internal states and ultimately drive behaviour, the inclusion of Self-Determination Theory allows us to explain the motivational dimensions underpinning impulse responses. Furthermore, the study is grounded in the Consumption Impulse Formation and Enactment Model, which helps articulate how internal cognitive-affective mechanisms lead to the enactment of impulse purchases, and the Competitive Arousal Model (CAM), which accounts for the heightened arousal and urgency triggered by competitive cues such as limited-time offers and scarcity messages.

Therefore, this research seeks to address these critical gaps by examining the influence of individual, promotional, website-related, and situational factors on online impulse buying behaviour, incorporating IBT as a key mediating construct. By drawing on four complementary theoretical lenses and applying a robust data-driven approach using PLS-SEM, this study develops a comprehensive and contextually grounded model. The findings contribute to the theoretical refinement of impulse buying frameworks and provide actionable insights for marketers and policy stakeholders in emerging digital markets.

1.6 Research Questions

Based on the research objectives, the study seeks to address the following research questions:

a. *Individual Factors and Online Impulse Buying*

- How do individual factors, such as hedonic motivation and mood states, influence online impulse buying behaviour?
- What is the mediating role of impulse buying tendency in the relationship between individual factors and online impulse buying behaviour?

b. *Promotional Factors and Online Impulse Buying*

- To what extent do promotional factors, such as discount offers, online reviews, limited time deals, online campaigns and product recommendations, affect online impulse buying behaviour?
- How does impulse buying tendency mediate the relationship between promotional factors and online impulse buying behaviour?

c. *Website-Related and Situational Factors*

- How do website-related factors, such as website aesthetics, security and privacy and convenience influence online impulse buying behaviour?

- What is the impact of situational factors, such as money availability, time availability and credit card usage, on online impulse buying behaviour?
- In what way does impulse buying tendency mediate the effect of website-related and situational factors on online impulse buying behaviour?

d. ***Model Development***

- How can a comprehensive model be designed to understand the combined impact of individual, promotional, website-related, and situational factors on online impulse buying behaviour?
- What role does impulse buying tendency play in integrating these factors into a unified framework?

1.7 Research Objectives

Following are the objectives of the study:

O1: To examine the influence of individual factors on online impulse buying behaviour, with the mediating role of impulse buying tendency.

O2: To examine the influence of promotional factors on online impulse buying behaviour, with impulse buying tendency as the mediating variable.

O3: To investigate the effect of website-related factors and situational factors on online impulse buying behaviour, with impulse buying tendency as the mediating variable.

O4: To design a model for understanding the impact of individual, promotional, website-related and situational factors on impulse buying behaviour, incorporating the mediating role of impulse buying tendency.

1.8 Significance and Contribution of the study

This study makes several important contributions to the growing literature on online impulse buying behaviour (IBB), particularly by addressing theoretical gaps, enhancing methodological rigor, and offering practical insights for digital commerce.

First, the study contributes theoretically by developing an integrated conceptual framework that examines how individual, promotional, website-related, and situational factors influence online impulse buying, with impulse buying tendency (IBT) as a central mediating construct. While previous studies often investigated these factors in isolation (e.g., hedonic motivation or discount offers), they rarely considered their interrelationships or mediating mechanisms. By

incorporating IBT into the model, this study builds on and extends prior research (e.g., Verhagen & van Dolen, 2011; Chan et al., 2017) that emphasized isolated drivers of impulse buying, offering a more holistic understanding of consumer behaviour in digital environments.

Second, the research makes a methodological contribution by using Partial Least Squares Structural Equation Modeling (PLS-SEM) to empirically validate complex relationships among multiple constructs. Unlike prior conceptual or exploratory studies, this study draws on data from 415 actual online shoppers across Northern India to estimate and test a robust predictive model. This enhances the generalizability and practical relevance of the findings, especially in the context of emerging markets, which are underrepresented in global impulse buying research.

Third, the study contributes to digital marketing and e-commerce practice by identifying specific online stimuli that significantly drive impulsive behaviour. Promotional elements like discounts, reviews, recommendations, and limited-time deals were found to strongly impact both IBT and IBB. While earlier works (e.g., Dawson & Kim, 2009) acknowledged promotional triggers, this study clarifies their direct and mediated effects, especially in the context of rapidly evolving online formats.

Fourth, the study addresses website-related and situational influences, such as website aesthetics, security, convenience, money availability, time, and credit card usage areas that have been relatively fragmented in previous literature. For instance, while some earlier studies recognized website aesthetics (e.g., Eroglu et al., 2003), few integrated these with situational variables and financial enablers like credit cards into a single explanatory model.

Finally, the study provides a comprehensive and integrative perspective by developing a unified model that captures both psychological and environmental influences on OIBB. This integrated approach not only fills a theoretical gap but also generates actionable insights for practitioners. The findings help marketers, e-commerce platforms, and policy-makers to design strategies that are both consumer-centric and ethically sound, balancing business outcomes with consumer well-being.

1.9 Organization of the thesis

The thesis is structured into five chapters.

Chapter 1: Introduction

This chapter provides an overview of consumer behaviour, with a comprehensive examination of online impulse buying behaviour and the various factors influencing impulsive purchasing decisions. It identifies the research problem that the study aims to address, articulates the research questions, and outlines the four main objectives of the study. Furthermore, the chapter highlights the potential implications of the study's findings for policymakers, researchers, marketing professionals, and content developers.

Chapter 2: Literature Review and Hypothesis Development

Chapter two provides an in-depth review of the theoretical frameworks relevant to the current study. It critically examines the existing literature and analyzes the findings from empirical research on online impulse buying behaviour. This chapter discusses studies that investigate the influence of individual, promotional, website-related, and situational factors on online impulse buying. Additionally, it explores the role of impulse buying tendency in shaping impulsive purchasing behaviour and its function as a mediator in the relationships between these factors. The chapter also presents the hypotheses developed from the reviewed literature and highlights the research gaps that remain in the understanding of online impulse buying behaviour. Lastly, it introduces the conceptual framework of the study.

Chapter 3: Research Methodology

Chapter three outlines the detailed methodology employed in this study. It justifies the selection of North Indian States as the study's focus area. The chapter provides a clear explanation of the data collection and analysis methods used in the research. It specifically includes information regarding the participants, the procedural approach, the measurement scales employed, and the data analysis techniques applied.

Chapter 4: Statistical Results

Chapter four presents a thorough analysis of the descriptive statistics, common method bias (CMB), and data diagnostics. It centres on the evaluation of the research hypotheses. The findings are systematically organized in alignment with the study's objectives and hypotheses. The results are then compared with those of prior research in the same domain. The chapter also discusses the validity of each hypothesis based on the outcomes of the current study.

Chapter 5: Implications, Limitations, and Future Research Directions

This chapter consolidates the theoretical and practical implications of the study's findings, outlining the significance for various stakeholders, including scholars, policymakers,

marketing professionals, and content creators. It also discusses the methodological limitations of the study and suggests potential directions for future research. Future studies can address the limitations identified, thereby further advancing the scholarly conversation in this field.

1.10 Summary of the Chapter

This chapter provides an overview of consumer behaviour, with a particular focus on online impulse buying behaviour and its various forms. It explores the role of impulse buying tendency and examines the different factors that influence impulsive purchasing decisions. The chapter also defines the research problem, presents the research questions, and outlines the four primary objectives of the study. Additionally, it discusses the potential implications of the study's findings for stakeholders, including policymakers, researchers, marketing professionals.

Chapter 2

Literature Review and Hypothesis Development

A literature review is a detailed and critical examination of the existing scholarly work related to the specific research topic. It involves summarising and synthesizing previous studies, theories and findings to provide a comprehensive understanding of the current knowledge in the field. It identifies key themes, trends and methodological approaches and gaps that warrant further investigation. By critically evaluating the strength and limitations of the existing research, the literature review contextualizes the study within the broader academic context, demonstrating how it builds upon or challenges existing knowledge and identifying areas for new contribution. In the context of this research project, the literature review centres on thorough examination of the existing studies literature related to online impulse buying behaviour, with a particular emphasis on the different factors that influence such behaviour. This review entails a comprehensive analysis of studies, articles and other scholarly sources that investigates the determinants of impulse buying behaviour in the online shopping environment. Through the synthesis and critically evaluating this body of literature, the chapter seeks to guide and formulation of the research hypotheses and construction of the research model for the current study.

This chapter is organized into five sections. Section 2.1 provides theoretical underpinning, Section 2.2 provides a comprehensive review of existing literature on individual factors (Hedonic motivation and mood states) influencing online impulse buying behaviour. Section 2.3 examines prior studies addressing the role of promotional factors (Discount offers, online reviews, limited time deals, online campaigns and product recommendations) in shaping online impulse buying behaviour. Section 2.4 explores previous research focusing on website-related factors (website aesthetics, security and privacy and convenience) that impact online impulse buying behaviour. Section 2.5 delves into studies investigating the influence of situational factors (Money availability, time availability and credit card usage on online impulse buying behaviour. Lastly, Section 2.6 reviews the body of literature concerning the mediating role of impulse buying tendency in this context.

2.1 Theoretical Underpinning

This study integrates multiple theoretical frameworks to understand the factors influencing online impulse buying behaviour (IBB) and impulse buying tendency (IBT). By examining the relationships between individual, promotional, website-related, and situational factors, this research employs established consumer behaviour theories to provide a comprehensive understanding of the underlying psychological and behavioural mechanisms.

2.1.1 Stimulus-Organism-Response (S-O-R) Framework

This investigation adopts the Stimulus-Organism-Response (S-O-R) model introduced by Mehrabian and Russell (1974). The S-O-R model serves as a framework rooted in environmental psychology, focusing on analyzing consumer reactions to environmental stimuli. These responses are mediated by the organism and involve internal affective and cognitive processes (Lee and Gan, 2020). Chen and Yao (2018) stated that this model comprises three key components: the stimulus (S), representing environmental factors that initiate consumer behaviour; the organism (O), which processes and reacts to these stimuli; and the response (R), reflecting the resulting behavioural outcomes. This framework suggests two possible responses to stimuli: approach and avoidance behaviours. It also introduces the PAD model, which encompasses emotional states pleasure versus displeasure, arousal versus non-arousal, and dominance versus submissiveness that mediate the potential reactions to stimuli encountered in a retail environment (Shen and Khalifa, 2012). Saricam (2022) posits that distinct environmental factors influence individuals' internal emotions and feelings, which, in turn, shape their subsequent behaviours.

Stimulus refers to an external cue that impacts an individual's internal state and can significantly trigger their behaviour (Sanny et al., 2023). In the S-O-R model, stimuli can be either internal or external factors that influence consumer cognition and emotions (Chen et al., 2022). External stimuli pertain to motivations arising from the surrounding environment, whereas internal stimuli are those motivations originating from an individual's psychological state (Kimiagari & Malafe, 2021; Malafe et al., 2022). Tan et al. (2023) sought to examine the impact of marketing stimuli, situational factors, and personality traits as influential stimuli that shape behavioural intentions. Parboteeah et al. (2009) identified a range of task-related and mood-related cues, specifically website characteristics, as stimuli influencing online shopping behaviour. Web aesthetics serve as a key stimulus that triggers cognitive and emotional responses in individuals (Wang et al., 2010). Researchers have suggested that both internal and external stimuli influence impulse buying and repeat purchasing behaviours (Chen & Yao,

2018; Huang, 2016). The current study adopts a holistic approach by examining a broad range of stimuli that influence online impulse buying behaviour (IBB). These stimuli include both internal factors, such as mood states and hedonic motivation, and external factors, including discount offers, online reviews, limited-time deals, online campaigns, and product recommendations. Internal stimuli like mood states and hedonic motivation shape consumers' emotional and psychological predispositions toward impulsive purchasing. On the other hand, external stimuli like website aesthetics, security and privacy measures, convenience, and various promotional elements (e.g., discount offers, limited time deals, online campaigns, online reviews and product recommendations) act as environmental cues that trigger impulsive behaviour. Additionally, situational factors such as money availability, time availability, and credit card usage further influence consumers' decision-making processes by providing the necessary resources and flexibility for unplanned purchases. By integrating these diverse stimuli, the study aims to capture the complex interplay between psychological, environmental, and situational factors that collectively drive impulsive buying tendencies in online shopping contexts. The organism refers to the internal processes and structures that mediate the relationship between external stimuli and the resulting actions, reactions, or responses (Chang et al., 2011). The external environment triggers the consumer's internal cognitive processes, which, in turn, exert an influence on their purchasing behaviour (Mehrabian and Russell, 1974). In the present study impulse buying tendency functions as the "organism," representing the internal cognitive and emotional processes that mediate the relationship between external stimuli and consumer responses. This tendency processes the external stimuli by generating impulsive desires, emotional arousal, and reduced self-regulation, ultimately influencing the consumer's behavioural response, such as the decision to engage in impulse buying. Thus, the "response," serves as the ultimate outcome of the interaction between external stimuli and internal cognitive and emotional processes. This study integrates both external stimuli and internal biases or organismic responses within the Stimulus-Organism-Response (S-O-R) framework. The rationale for combining these elements is grounded in the premise that consumer behaviour in digital environments is influenced not only by external triggers but also by individual-level psychological predispositions that mediate and moderate these effects (Mehrabian & Russell, 1974; Eroglu et al., 2001).

2.1.2 Consumption Impulse Formation and Enactment

The framework proposed by Dholakia (2000) elucidates an integrated model of Consumption Impulse Formation and Enactment (CIFE) specifically highlighting the involvement of

motivational, cognitive and volitional mechanisms in the development of such impulse. The impulse formation procedure represents the inaugural phase, thus initiating the initiation of the CIFE model with the precursors of Consumption Impulse (CI). The CIFE model proposed that consumption impulse is influenced by three components: situational factors, marketing stimuli, and an individual's impulsivity trait (Dawson and Kim, 2009). Situational determinants pertain to the contextual circumstances prevailing during the consumption episode, exerting a direct influence on the impulsive buying behaviour among consumers (Belk, 1975). Marketing stimuli encompass diverse elements within the marketer's purview, strategically utilized to exert influence and prompt consumers into immediate purchase decisions (Dholakia, 2000). The third antecedent pertains to the personality attribute of consumer impulsivity. As consumers interact with the manifold cues prevalent in the purchasing environment, they may be subject to a compelling tendency to partake in irrational buying behaviours (Kimiagari & Malafe, 2021). The existence of one or more of the aforementioned precursors to a notable extent will culminate in the emergence of a pronounced proclivity toward indulging in a consumption impulse. The manifestation of the Consumption Impulse (CI) is regarded as automatic, as it becomes inevitable when the requisite antecedents are present at a threshold level of intensity (Isen and Diamond, 1989). After the formation of the consumption impulse, potential constraints to its execution are automatically assessed (Loewenstein, 1990). In the absence of consumer cognizance concerning any limiting factors during their evaluative phase, impulsive consumption behaviour is subsequently enacted. If the cognitive assessment of impulsive conduct yields unfavorable results, the consumer's volitional system becomes activated (Bagozzi & Dholakia, 1999). The primary purpose of the volitional system is to effectively employ various techniques of resistance in order to counteract the influence of the CI. The current study has incorporated all three components of the CIFE model, namely different promotional factors (discount offers, online reviews, limited-time deals, online campaigns, and product recommendations) as a marketing stimulus. Money availability, time availability and credit card usage as a situational factor, and impulse buying tendency as an individual's impulsivity characteristic and a mediating variable.

2.1.3 Self- determination theory

Self-Determination Theory (SDT), developed by Deci and Ryan (2000), provides a comprehensive framework for understanding individuals' behavioural choices by focusing on the role of motivation. The theory is composed of six interconnected mini-theories, each addressing specific aspects of motivation. This study draws on two key mini-theories:

Cognitive Evaluation Theory and Organismic Integration Theory. Together, these theories suggest that human behaviour is shaped by a combination of intrinsic and extrinsic motivations, which significantly contribute to an individual's sense of identity and behavioural regulation (Cassia and Magno, 2024).

Cognitive Evaluation Theory explains how intrinsic motivation is driven by the desire to engage in activities that are inherently enjoyable, satisfying, or fulfilling. Such activities meet fundamental psychological needs for autonomy, competence, and relatedness (Ryan and Deci, 2000; Japutra et al., 2024). For example, a consumer who experiences joy and personal satisfaction from exploring an e-commerce platform might demonstrate intrinsic motivation. In contrast, Organismic Integration Theory explores how extrinsic motivation, which is often associated with external rewards or outcomes, can be internalized to varying degrees, influencing behaviour in meaningful ways (Ryan and Deci, 2019). In the context of online impulse buying, extrinsic motivation may be reflected in responses to discounts, limited-time promotions, or aesthetically pleasing website designs that serve as external triggers for purchasing behaviour.

This study conceptualizes website-related factors (aesthetics, convenience, security and privacy), promotional factors (discount offers, online reviews, limited-time deals, online campaigns, and product recommendations), and situational factors (e.g., money availability, time availability and credit card usage) as forms of extrinsic motivation. These external stimuli encourage consumers to engage in online shopping activities by providing external rewards or incentives. On the other hand, individual factors, such as hedonic motivation and mood states, are framed as intrinsic motivators because they represent internal drives that prompt consumers to engage in shopping activities for personal enjoyment or emotional satisfaction.

SDT has been extensively applied across a wide range of disciplines, including education, sports, workplace studies, organizational behaviour, and business contexts (Ling et al., 2024). Its adaptability has made it a valuable tool for understanding how motivation drives behaviour in diverse settings. In marketing, Gilal et al. (2019) have strongly advocated for the broader adoption of SDT, emphasizing its utility in predicting consumer behaviour. By integrating intrinsic and extrinsic motivation, SDT offers a robust framework for understanding the underlying psychological processes that influence consumer decisions.

Within the domain of marketing, SDT provides unique insights into the drivers of consumer behaviour by analyzing how intrinsic and extrinsic motivations interact. For instance, intrinsic

motivators such as the enjoyment of browsing or the emotional satisfaction of finding a desired product may align with extrinsic motivators like promotional offers or website features, creating a powerful influence on online impulse buying behaviour. By leveraging these insights, businesses can design strategies that align with consumers' psychological needs, enhancing their overall shopping experience and driving unplanned purchases.

In conclusion, SDT serves as a valuable theoretical lens for examining the interplay between intrinsic and extrinsic motivations in shaping consumer behaviour. The theory's application in this study provides a nuanced understanding of how various motivational drivers whether derived from the individual or the external environment contribute to online impulse buying behaviour. Its ability to explain behavioural outcomes through motivational analysis highlights its potential for advancing research and practice in consumer behaviour and interactive marketing.

2.1.4 Competitive Arousal Model

The Competitive Arousal Model elucidates how various elements, such as perceived competition and time constraints, intensify emotional arousal, thereby influencing an individual's decision-making processes (Ku et al., 2005). These factors create an environment of urgency or rivalry that activates the human organism's arousal systems, shifting the focus away from deliberate, rational processing toward more impulsive and emotion-driven actions. This heightened state of arousal disrupts the balance between cognitive control and emotional reactivity, often resulting in quick, instinctive decisions that may prioritize immediate rewards over long-term considerations. In this context, perceived arousal plays a central role as the physiological and psychological mechanism driving this response. It refers to the neurophysiological basis that governs all processes in the human organism, ranging from passive states such as rest and relaxation to heightened states of excitement and alertness (Russell and Mehrabian, 1977). Arousal is not limited to a singular experience but exists on a continuum, dynamically shifting based on internal and external stimuli. For example, in competitive or high-pressure scenarios such as flash sales, bidding wars, or limited-time promotions the perception of rivalry or urgency triggers a spike in arousal, which can significantly amplify the tendency to act impulsively. The arousal-non arousal spectrum reflects the degree to which an individual experiences alertness, excitement, stimulation, or activation within a given context (Donovan and Rossiter, 1982).

The Competitive Arousal Model suggests that competitive scenarios often involve multiple pathways, such as perceived competition and the presence of time constraints (Malhotra, 2010). The pathway of perceived rivalry is characterized by an increased awareness of a competitor's role as a barrier to achieving one's objectives (Malhotra, 2010). Perceived rivalry, as a subjective dynamic between competitors, can differ in intensity (Kilduff et al., 2010). When provocation arises from the deliberate actions of a recognizable adversary, an individual's arousal tends to intensify, potentially leading to heightened engagement or response (Zillmann and Bryant, 1974). This heightened arousal often narrows an individual's focus, directing their energy and attention toward outperforming the competitor. The emotional intensity associated with perceived rivalry can also amplify feelings of urgency and competitiveness, creating a feedback loop where arousal further fuels impulsive decision-making. In competitive environments, this arousal-driven behaviour may result in actions that prioritize immediate gains, often at the expense of long-term strategic thinking. The interplay between perceived rivalry and arousal underscores the emotional and psychological complexity of decision-making in high-stakes, competitive situations.

Additionally, the pathway of time pressure emphasizes the perceived urgency and necessity to make rapid judgments or decisions. Research has shown that time pressure has a positive impact on an individual's level of arousal (Maule et al., 2000). It was discovered that under conditions of time pressure, individuals are more inclined to rely on affect, which is subsequently associated with heightened levels of arousal (Finucane et al., 2000). This reliance on affect under time pressure often accelerates decision-making, but it may also lead to errors or impulsive behaviours, as individuals prioritize immediate responses over thoughtful evaluation. The combination of limited time and heightened arousal can reduce the ability to process complex information, causing decisions to be driven more by emotional instincts than by logical analysis. In competitive or high-pressure contexts, such as flash sales or bidding scenarios, this dynamic can significantly influence consumer behaviour, fostering impulsivity and a sense of urgency to act quickly. Adam et al. (2015) explained that auction fever arises from the combined influences of peer competition and time pressure, highlighting the significant role of arousal in shaping bidding behaviour. Malhotra (2010) Find that the "desire to win" was significantly intensified under conditions of direct rivalry and time constraints.

The process of impulse buying is typically marked by a lack of cognitive deliberation, with emotions playing a dominant role in driving the decision-making process (Rook and Fisher, 1995). Consumers often experience positive emotional reactions, such as pleasure and

heightened arousal (Adelaar et al., 2003), which lead to a reduction in information processing and cognitive analysis during the impulse buying process. Therefore, the Competitive Arousal Model offers an appropriate theoretical framework for studying impulse purchases. This model is particularly relevant to our research as it captures how emotional arousal, triggered by external factors like competition or time pressure, can overwhelm rational thought and facilitate impulsive behaviours. In the context of online shopping, competitive elements such as limited-time offers, real-time notifications about other consumers' actions, and exclusive deals can generate heightened emotional responses. The competitive dynamics and the perceived urgency introduced by these elements amplify the arousal, pushing consumers toward quick, impulsive buying decisions. By applying the Competitive Arousal Model, we can gain deeper insights into how external stimuli, combined with heightened impulsive tendencies, influence consumer behaviour in online retail settings, ultimately shaping impulse buying behaviour.

To enhance the conceptual rigor of this study, a multi-theoretical approach has been adopted by integrating the Stimulus-Organism-Response (S-O-R) framework, Self-Determination Theory (SDT), the Consumption Impulse Formation and Enactment Model, and the Competitive Arousal Model. The S-O-R framework serves as the foundational lens, conceptualizing online impulse buying as a process initiated by external stimuli (e.g., promotional cues, website aesthetics, and situational triggers), which influence internal psychological and emotional states (the organism), subsequently leading to impulsive behavioural responses. Self-Determination Theory complements this by elucidating the role of intrinsic and extrinsic motivations. The Consumption Impulse Formation and Enactment Model further contributes by offering insights into how cognitive evaluations, affective responses, and situational contingencies coalesce to form and enact impulsive consumption behaviour, especially within digital contexts characterized by immediacy and convenience. Additionally, the Competitive Arousal Model explicates how scarcity-based triggers such as limited-time deals and flash sales generate psychological arousal and urgency, reinforcing impulsive actions. Building on this foundation, the study also reflects on how emerging AI-enabled mechanisms such as algorithmic product recommendations, dynamic pricing, and hyper-personalized advertising serve as technologically advanced stimuli that intensify arousal, enhance motivational salience, and potentially alter traditional consumer response pathways. By acknowledging the interplay between classical theoretical constructs and evolving AI strategies, this research not only strengthens its explanatory power but also contributes to the

theoretical advancement of impulse buying literature in the context of modern digital commerce.

2.2 Individual factors influencing online impulse buying behaviour

Some individuals frequently engage in impulse buying whenever an opportunity presents itself, often driven by spontaneous desires or situational triggers, whereas others rarely make purchases without careful consideration and deliberate analysis of their needs and financial constraints. This variability suggests that there may be enduring individual differences in the propensity to engage in impulse buying, which is influenced by personality traits, situational factors, and psychological predispositions (Verplanken and Herabadi, 2001). Individuals who are more impulsive by nature may exhibit a higher likelihood of making unplanned purchases, while others with more cautious or analytical tendencies are less likely to succumb to impulsive buying behaviour (Creevy et al., 2018). Understanding these differences is crucial for comprehending the diverse factors contributing to consumer decision-making.

Impulse buying has been consistently linked to emotional and personality-related factors, with hedonic motivation emerging as a critical individual-level determinant in digital retail environments. Researchers highlight that both positive and negative mood states contribute to impulsive purchases positive moods (e.g., happiness, excitement) enhance pleasure-seeking behaviour, while negative moods (e.g., stress, sadness) may lead consumers to shop as a form of emotional regulation (Cohen et al., 2018; Verplanken & Sato, 2011). This dual pathway underscores the emotional complexity underlying impulse purchases.

Beyond mood, personality traits such as narcissism and extraversion have also been associated with impulsive tendencies. Narcissistic consumers may engage in impulse buying to elevate their self-image (Taylor, 2020), whereas extraverts, driven by sociability and thrill-seeking, may pursue unplanned purchases as novel and stimulating experiences (Olsen et al., 2016). However, emotional and personality dispositions alone do not comprehensively explain the internal mechanisms driving online impulse buying behaviour (IBB). It is here that motivation especially hedonic motivation plays a central mediating role in bridging affect and action.

Hedonic shopping motivation refers to consumers' drive to seek enjoyment, emotional gratification, and experiential pleasure during shopping (Widagdo & Roz, 2020). Unlike utilitarian motivation, which is task-oriented and efficiency-driven, hedonic motivation aligns with intrinsic psychological desires, such as fantasy fulfillment, excitement, and sensory stimulation (Arnold & Reynolds, 2003; Holbrook & Hirschman, 1982). In online

environments, features such as immersive visuals, curated product feeds, personalized offers, and interactive tools (e.g., virtual try-ons) serve to amplify this motivation, creating a highly engaging and emotionally charged atmosphere (Scarpi, 2012). This environment fosters exploratory behaviour—such as prolonged browsing and product comparison—which in turn increases susceptibility to impulse buying triggers, including limited-time deals and real-time recommendations (Gültekin & Hacettepe, 2012).

This synthesis reveals that hedonic motivation not only energizes consumers toward spontaneous purchases but also heightens their impulse buying tendency (IBT), serving as a psychological bridge between individual dispositions and behavioural outcomes. Despite extensive research into hedonic motivation, its simultaneous influence on both IBT and IBB within an integrated framework remains underexplored, particularly in emerging digital economies like India. Therefore, this study addresses this gap by hypothesizing the direct effects of hedonic motivation on both IBT and IBB, thereby advancing the understanding of how emotional gratification mechanisms drive unplanned purchases in digital retail contexts.

H1: Hedonic motivation positively influences online impulse buying behaviour.

H2: Hedonic motivation positively influences impulse buying tendency.

Emotional states both positive and negative play a pivotal role in shaping consumer behaviour, particularly in the context of online impulse buying. Research suggests that mood states do not act in isolation but are often moderated by personality traits, influencing how individuals interpret stimuli and make decisions. For instance, neurotic individuals may exhibit enhanced cognitive vigilance under negative emotional conditions, while extraverts typically perform better in positive emotional states due to their inherent sociability and affective responsiveness (Tamir, 2005; Tamir et al., 2002). These findings underscore that emotional and dispositional variables interact dynamically to shape behavioural outcomes.

In consumer behaviour, mood is not only an antecedent to decision-making but also a product of consumption itself, creating a cyclical relationship between affect and behaviour. Holbrook and Gardner (2000) suggest that consumption experiences can modify existing mood states, leading to a feedback loop where emotions and buying behaviour continuously influence each other. This iterative process is especially relevant in online environments where consumers are exposed to emotionally stimulating content and instant purchasing options.

Impulse buying has been shown to be tightly coupled with emotional states. Positive moods, such as excitement or happiness, often encourage consumers to make spontaneous purchases

to extend their pleasurable feelings (Verplanken & Sato, 2011). Conversely, negative moods such as stress, sadness, or anger can also trigger impulse buying as a coping strategy aimed at alleviating emotional discomfort (Horváth & Adıgüzel, 2018; Kim et al., 2022). This dual influence illustrates how mood states function as psychological catalysts that either enhance existing pleasure or mitigate negative affect through consumption.

A growing body of research highlights that mood-driven impulsive purchases are tied to reduced cognitive control and increased emotional reactivity, making consumers more prone to spontaneous decisions (Lee & Yi, 2008). Under positive emotional conditions, individuals may resist rational purchases that could disrupt their current emotional state (Gardner et al., 2014), instead favouring emotionally congruent purchases that maintain their mood (Kieling et al., 2016; Wegener et al., 1995). This behaviour reflects mechanisms of self-reward or mood maintenance, where purchases are not made for functional utility but for emotional fulfillment (Dittmar, 2005).

Similarly, in negative emotional states, consumers often seek uplifting experiences or products that provide a temporary emotional escape (Park, 2017). Impulse buying, in this context, acts as a self-soothing behaviour that offers short-term gratification at the expense of deliberative thinking (Horváth & Adıgüzel, 2018). The impairment of self-regulation in such states further amplifies susceptibility to impulsive actions. These findings suggest that mood not only triggers impulse buying but may also mediate the relationship between external stimuli (e.g., promotional cues or website features) and internal response mechanisms.

Synthesizing the existing literature reveals that mood states significantly influence both the tendency to engage in impulse buying (IBT) and the actual behavioural outcome (IBB). However, current studies often examine these effects in isolation without accounting for the full spectrum of emotional-motivational dynamics in digital retail settings. This study addresses that gap by exploring how mood states, in conjunction with personality traits and digital stimuli, shape impulsive tendencies and behaviours, offering a more integrative understanding of emotional influences in online shopping contexts. Therefore,

***H3:** Mood states positively influence online impulse buying behaviour.*

***H4:** Mood states positively influence impulse buying tendency.*

2.3 Promotional factors influencing online impulse buying behaviour

Sales promotions have long been recognized as powerful tools in influencing consumer behaviour, particularly in the context of online impulse buying. The heightened sense of

urgency and opportunity often associated with promotions, such as limited-time offers, flash sales, or buy-one-get-one-free deals, can create a compelling reason for consumers to make purchases they may not have initially planned. This sense of urgency is often coupled with emotional triggers like excitement, fear of missing out (FOMO), and the pleasure of a perceived deal, which can overwhelm the rational decision-making processes (Pusenius, 2023).

In the digital landscape, e-retailers leverage advanced techniques to make sales promotions even more effective. Features like personalized discounts, time-limited offers displayed prominently on websites, and countdown timers add to the emotional and psychological impact. These strategies not only push consumers to take immediate action but also reduce the time available for them to reflect on their purchase decisions, decreasing the opportunity for self-control to intervene. The concept of planned impulsive buying, as discussed by Arif and Ali (2024), suggests that consumers may go online with the intention of purchasing a specific product, but once exposed to attractive promotions, they may be swayed to buy additional products or make unplanned purchases. A common marketing tactic involves reducing the price to attract consumers, often complemented by the addition of bonuses or incentives designed to encourage immediate purchase of the discounted items (Yin & Huang, 2014). This dynamic illustrates how promotions don't just trigger impulsive behaviour in an unplanned sense, but can actually shape consumers' pre-purchase intentions, making them more susceptible to making decisions based on the attractiveness of promotional offers rather than need-based criteria.

As noted by Dawson and Kim (2010), promotional stimuli lead to a reduction in self-control, as consumers feel the urge to capitalize on the perceived savings or rewards. This behaviour is especially evident when sales promotions are designed to evoke a sense of scarcity or urgency. When combined with discounts or the opportunity for a 'free' gift, the likelihood of impulse buying increases significantly as consumers feel compelled to act quickly before the opportunity expires. In addition, Lo et al. (2016) highlight the role of monetary savings as a key motivator for impulse buying. The perception of receiving value for money, whether through discounts, vouchers, or added perks, activates a consumer's desire to make purchases impulsively. Price discounts are a key factor in shaping consumers' purchasing decisions, with price discount framing serving as a strategic marketing approach that alters how consumers perceive the value of products (Chen et al., 1998). Prior research has demonstrated that price promotion is a key determinant influencing consumers' purchase intention within the context of promotional strategies (Huang & Jiang, 2014; Dodds et al., 1991). Retailers are keenly aware

of this, continuously optimizing their promotional strategies to exploit the emotional triggers that these incentives create. By aligning promotional stimuli with emotional cues and strategic timing, e-retailers can effectively enhance impulse buying behaviour, driving higher sales volumes and greater consumer engagement. Therefore, we propose the following hypotheses:

H5: *Discount offers positively influence online impulse buying behaviour.*

H6: *Discount offers positively influence impulse buying tendency.*

With the expansion of the Internet, word of mouth (WOM) has evolved into a more influential form known as electronic word of mouth (eWOM), encompassing social media marketing, online reviews, forums, buzz marketing, guerrilla marketing, and viral marketing (Kelly, 2007; Ordenes et al. 2017). In the contemporary digital landscape, online reviews represent one of the most impactful sources of information for consumers in shaping their purchase decisions (Lee and Shin, 2014). Given the inherent risks associated with online shopping, such as product performance and financial uncertainties, many consumers rely on online reviews from other users to assess product quality and mitigate uncertainty. These reviews provide valuable first hand insights that help consumers evaluate their purchasing decisions in the absence of direct product interaction (Doh and Hwang, 2009). The increasing reliance on online reviews underscores their critical role in shaping consumer perceptions and influencing buying decisions. Previous research suggests that online reviews significantly impact consumer behaviour. Specifically, online reviews have been shown to shape consumers' perceptions of review credibility and usefulness, which subsequently affect their adoption of such reviews (Lin and Xu, 2017).

The perceived credibility of a review instills trust, while its usefulness determines the extent to which consumers are willing to incorporate the information into their decision-making process. Prior research indicates that the credibility of reviews can have a positive impact on consumers' purchase intentions (Chih et al., 2013). Consumers often rely on detailed, balanced reviews that highlight both pros and cons to reduce their perceived risks and improve confidence in their purchase decisions. Moreover, the social proof offered by numerous positive reviews further enhances the appeal of products, as consumers are influenced by the behaviours and opinions of their peers. Chang et al. (2015) stated that Online reviews also possess substantial value creation potential for businesses. Serving as a critical resource for product and service enhancements, they contribute to increased revenue generation and the cultivation of long-term customer relationships, thereby playing a pivotal role in organizations' marketing strategies.

In the context of online reviews, consumers with high levels of impulsiveness are likely to exhibit greater responsiveness to the hedonic value of these reviews. For these consumers, reading reviews is not merely an evaluative process but also a source of entertainment and emotional engagement. The language, tone, and vividness of reviews contribute to their hedonic value, amplifying their appeal to impulsive consumers. Such consumers are expected to derive more enjoyment from the process of reading online reviews, finding satisfaction not only in the information provided but also in the storytelling aspects of user experiences. This enjoyment may lead them to spend more time browsing shopping websites, increasing their exposure to additional products and promotions. Consequently, this extended engagement heightens the likelihood of unplanned purchases, driving their impulse buying behaviour (Zhang et al., 2018). Sun et al. (2024) also highlighted that the perceived value of online reviews is positively correlated with the impulsiveness. Thus, online reviews serve not only as a functional tool for decision-making but also as a catalyst for impulsive shopping tendencies, particularly among consumers driven by hedonic motivations. Therefore, we hypothesize:

H7: Online reviews positively influence online impulse buying behaviour.

H8: Online reviews positively influence impulse buying tendency.

Large-scale promotions, appealing deals, and offers on bulk product purchases during online shopping festivals incentivize widespread consumer participation and heighten consumption enthusiasm (Lu & Zhuang, 2018). These promotions often create an environment of perceived exclusivity and value, encouraging consumers to make spontaneous purchases to capitalize on the discounts and deals available only for a limited time. In such scenarios, the psychological effect of scarcity and time-limited offers intensifies, triggering a fear of missing out (FOMO) that further fuels impulsive buying behaviour (Platon, 2024).

A study on China's "Double Eleven" shopping festival identified it as the most popular online shopping event with the highest sales volume. The research examined online impulse buying behaviour during the festival from both hedonic and utilitarian perspectives, revealing that consumers are driven not only by the joy and excitement of shopping but also by the practical benefits of availing substantial savings and purchasing products in bulk (Akram et al., 2018). This dual motivation demonstrates how shopping festivals cater to diverse consumer needs while amplifying impulse purchases. Online shopping festivals stimulate widespread participation and heightened consumer enthusiasm by bringing together a large number of merchants and products and implementing large-scale promotional campaigns within a limited

time frame (Zhao & Wan, 2017). These campaigns often include price discounts, coupons, cash rewards, free shipping, and complimentary gifts (Wu et al., 2016). The convenience of e-commerce platforms, combined with attractive price promotions, significantly encourages consumers to increase their online purchases during holiday periods (Oh & Kwon, 2009).

Online shopping festivals have shown a significant influence of large-scale promotions on consumer behaviour. These events generate a unique shopping atmosphere characterized by urgency, excitement, and high engagement. The use of flash sales, countdown timers, and exclusive deals enhances the perceived value of purchases, compelling consumers to act quickly without extensive deliberation. The shopping atmosphere and environment play a critical role in influencing consumers' purchasing behaviour (Baker et al., 2002). According to Huang (2017), the festive atmosphere can have a greater impact on consumers' purchase decisions than the product itself. The heightened emotional arousal during such events, combined with the perceived benefits of saving money and acquiring desirable products, significantly amplifies consumers' impulse buying tendencies. Research has shown that through large-scale and attention-grabbing product promotions, retailers can enhance not only their overall sales but also their brand impact and visibility (Swilley & Goldsmith, 2013). Additionally, the communal aspect of shopping festivals where consumers share their experiences, deals, and purchases online further reinforces social proof and encourages others to participate, thereby creating a cycle of increased impulsive consumption. Therefore, following hypotheses are proposed:

H9: Online campaigns positively influence online impulse buying behaviour.

H10: Online campaigns positively influence impulse buying tendency.

Among the numerous benefits that electronic commerce provides to retailers, the ability to establish a flexible and personalized relationship with consumers is arguably one of the most significant (Wind & Rangaswamy, 2001). Based on consumers' browsing behaviour, preferences, and interests, online retailers provide a personalized shopping experience by recommending products tailored to their specific needs and desires (Yoon et al., 2013). These personalized recommendations are driven by sophisticated algorithms that analyze user data to predict preferences, enhancing the relevance of the shopping experience. By presenting products that align with individual interests, retailers aim to increase engagement and drive purchase decisions. Chen et al. (2019) indicated that consumers' positive affective responses are triggered when they encounter product recommendations presented as stories and visual

cues, which evoke emotional engagement and curiosity. This emotional connection not only makes the shopping experience more enjoyable but also lowers consumers' cognitive resistance to unplanned purchases, thereby influencing their impulsive buying behaviour. The narrative element and appealing visual representations of products encourage consumers to visualize themselves using the items, further increasing their likelihood of making impulsive decisions.

The awareness generated by product recommendations often motivates individuals to purchase items they might not have otherwise noticed (Xiang et al., 2016), introducing them to a broader array of options. This exposure to additional items often leads to unplanned purchases, as consumers may perceive these recommendations as opportunities they might otherwise overlook. For instance, seeing complementary products, such as accessories or add-ons, alongside a primary item can create a sense of necessity or completeness, motivating spontaneous purchases. Moreover, recommendation agents play a critical role in enhancing the effectiveness of product searches by streamlining the discovery process and reducing the effort required to find suitable options. Through effective product promotion, these agents stimulate unintentional purchases by presenting items in a way that appeals to consumers' emotional and psychological triggers (Hostler et al., 2011). For example, limited-time offers or best-seller tags on recommended products heighten the sense of urgency and desirability, further driving impulsive actions. By fostering a mindset that encourages spontaneous decision-making, impulse buying tendencies strengthen the impact of personalized recommendations, ensuring that promotional strategies achieve higher conversion rates and greater consumer engagement. Thus, we can hypothesize:

H11: Product recommendations positively influence online impulse buying behaviour.

H12: Product recommendations positively influence impulse buying tendency.

Scarcity has become a prevalent strategy in online promotional marketing, where information about limited-time and limited-quantity deals is perceived as a scarcity message, leveraging the psychological principle of scarcity to drive consumer behaviour (Wu et al., 2021). This approach taps into consumers' fear of missing out (FOMO), compelling them to act quickly to secure the perceived value of these deals. By framing products as scarce or available only for a short duration, retailers effectively create a heightened sense of urgency, pushing consumers toward immediate purchasing decisions. In the context of limited-time deals, a shorter time window intensifies time pressure, thereby increasing the perceived urgency or necessity to make judgments or decisions more rapidly (Carnevale and Lawler, 1986). Time pressure is

frequently conceptualized through the use of deadlines, as they heighten the perceived urgency to make decisions promptly, particularly as the deadline approaches (Moore, 2004), which not only increases their purchasing behaviour but also reduces the time they spend searching for alternatives. It was discovered that time pressure amplifies the influence of emotions in decision-making while reducing the extent of deliberation regarding the potential consequences of decisions (Shiv and Fedorikhin, 2002). This expedited decision-making process often leads to heightened satisfaction with the products they purchase, as consumers associate their quick actions with successfully seizing a valuable opportunity (Aggarwal et al., 2011). For instance, limited-time offers with countdown timers can create an adrenaline rush, reinforcing the emotional appeal of the purchase and solidifying the consumer's belief that they made a smart and timely decision.

As noted by Finucane et al. (2000), time pressure significantly elevates the arousal level of the decision-maker, directly influencing the emotional state of the shopper. This heightened arousal often results in impulsive decision-making, as consumers prioritize the immediate gratification of securing a scarce item over more deliberate evaluation. The emotional intensity elicited by time pressure not only drives impulse buying but also reinforces the perceived exclusivity and value of the deal. Online shopping campaigns effectively capitalize on this phenomenon by creating a sense of scarcity through mechanisms such as flash sales, one-day promotions, and time-limited offers. These strategies not only amplify consumers' perceived urgency but also trigger emotional responses that override rational deliberation, leading to spontaneous purchases (Aggarwal & Vaidyanathan, 2003). For example, a flash sale on a highly desirable product might include real-time updates on the dwindling stock, further intensifying the consumer's need to act immediately. Such campaigns have proven to significantly boost impulse buying behaviour, as the scarcity messages create an environment where consumers feel compelled to make quick decisions to avoid missing out. Additionally, the combination of urgency, emotional arousal, and perceived exclusivity enhances the overall effectiveness of these marketing strategies in driving unplanned purchases. Therefore,

***H13:** Limited time deals positively influence online impulse buying behaviour.*

***H14:** Limited time deals positively influence impulse buying tendency*

2.4 Website - related factors affecting online impulse buying behaviour

Online impulse buying is shaped by various factors, particularly those related to website characteristics. These factors are instrumental in creating a seamless and engaging user

experience, which in turn fosters stronger consumer relationships, enhances customer support, and converts website visitors into online purchasers (Ghose and Dou, 1998). A well-designed website serves as more than just a platform for transactions; it acts as a strategic tool for building trust, facilitating decision-making, and providing personalized experiences that encourage impulsive actions.

Parboteeah et al. (2009) assert that a website's aesthetic appeal functions as a mood-relevant cue, influencing shoppers' emotions and setting the tone for a pleasurable online shopping experience. This aesthetic appeal creates a visually stimulating environment that captures the consumer's attention and encourages them to spend more time exploring the website (Jennings, 2000). A well-crafted design, including vibrant color schemes, intuitive layouts, and high-quality images, not only enhances the shopping journey but also evokes positive emotional responses (Kimiagari et al., 2022), ultimately increasing the likelihood of impulsive purchases. Zheng et al. (2019) suggest that visually appealing websites have the capability to enrich consumers' browsing experiences by making navigation more enjoyable and reducing cognitive effort. Features such as smooth scrolling, interactive elements, and visually organized content help maintain the consumer's interest, encouraging them to explore a broader range of products. This enriched browsing experience creates a sense of satisfaction and excitement, which can act as a catalyst for unplanned purchases. Bismo et al. (2020) argue that the visual appeal of a website exerts a significant positive influence on consumers' impulsive purchasing behaviour. When a website is visually engaging, it creates an immersive environment that stimulates consumers' desire to own the products they see. The attractiveness of the design, combined with clear calls to action and strategically placed promotional banners, triggers a sense of urgency and spontaneity, encouraging consumers to act on impulse.

The aesthetic attractiveness of the website serves as a powerful stimulus, fostering impulsive tendencies in consumers (Liu et al., 2013). For instance, websites that use dynamic visuals, appealing typography, and carefully curated product displays can evoke a sense of delight and fascination. This sensory stimulation not only captures attention but also bypasses rational decision-making processes, making consumers more likely to make spontaneous purchases. Additionally, an aesthetically pleasing website contributes to a positive brand perception, reinforcing consumer trust and loyalty, which are critical for encouraging repeat visits and further impulse purchases. Therefore, we propose that:

H15: Website aesthetics positively influences online impulse buying behaviour.

H16: Website aesthetics positively influences impulse buying tendency.

A trustworthy shopping environment is considered fundamental to the success of e-commerce retailers (Kansal, 2014), as it builds confidence among consumers and fosters long-term relationships (Lin and Chuan, 2013). In an online shopping context, trust is particularly vital because consumers often make purchase decisions without physically interacting with the product or the seller. The perceived reliability of a website serves as a critical determinant of whether a consumer chooses to complete a transaction, especially when it comes to impulsive purchases where decisions are made spontaneously. Salisbury et al. (2001) identified the presence of robust security measures as a crucial factor influencing a website's overall effectiveness. Features such as secure payment gateways, data encryption, and visible trust seals not only protect consumer data but also reassure customers about the credibility of the retailer. When shoppers feel that their personal and financial information is secure, they are more inclined to explore the website and engage in unplanned purchases, as the reduced perception of risk enhances their overall shopping experience. Zou (2018) posits that individuals are significantly more likely to engage in impulsive online purchasing behaviour when they perceive a secure environment during transactions on a given website. A secure environment minimizes anxiety and fosters a sense of safety, allowing consumers to focus on the enjoyment of browsing and shopping rather than worrying about potential risks. This sense of assurance can trigger impulsive behaviours, as consumers are more likely to act on their desires when the barriers of uncertainty and risk are removed. Hasim et al. (2018) found a positive correlation between website security and online impulse purchasing, suggesting that the quality of a website significantly influences customers, prompting impulsive buying decisions. High-quality websites often prioritize not only aesthetic appeal and functionality but also comprehensive security measures that enhance consumer trust. For instance, features such as two-factor authentication, transparent return policies, and customer support availability further solidify the consumer's confidence in the platform.

Additionally, a secure shopping environment indirectly enhances the emotional and psychological factors that drive impulse buying. When consumers perceive a website as trustworthy, they are more likely to exhibit a positive emotional response, which can amplify their impulsive tendencies and lead to spontaneous purchases. In this context, retailers who invest in visible and effective security measures can not only protect their customers but also create an environment that encourages impulsive buying behaviour, ultimately driving sales and customer retention. Therefore, we hypothesize:

H17: Security and privacy positively influences online impulse buying behaviour.

H18: Security and privacy positively influences impulse buying tendency.

Zhao et al. (2021) emphasized that consumers' perception of interactivity improves significantly as their sense of control over website interactions increases. When consumers feel empowered to navigate websites easily, customize their shopping experiences, and access relevant information without hassle, their perception of the platform's interactivity enhances. This heightened interactivity fosters a deeper engagement with the website, making the shopping experience more dynamic and enjoyable. Enhanced interactivity also provides customer convenience by facilitating easy navigation and offering detailed and comprehensive product information (Dholakia and Zao, 2009). These features simplify the decision-making process and encourage spontaneous purchasing decisions by reducing the cognitive effort involved in browsing and comparing products. Ease of use is universally recognized as a critical aspect of website quality that profoundly influences consumer impulsivity. Liu et al. (2013) observed that online buyers' perceived ease of use positively impacts their tendency to make impulsive purchases. A user-friendly interface, seamless navigation, and intuitive design elements contribute to a sense of efficiency, allowing consumers to explore the website without frustration (Lun et al., 2024). For example, websites with clear product categories, effective search filters, and fast-loading pages enable consumers to quickly discover items of interest, increasing the likelihood of impulsive buying. The simplicity and accessibility of the shopping process often leave consumers with more mental bandwidth to focus on the excitement of purchasing, further amplifying their impulsive tendencies.

The intensity of consumers' emotional responses largely depends on the navigability of the website. Lin and Lo (2016) suggest that a streamlined online environment with minimal complications fosters frequent visits and stimulates impulsive decision-making. When a website is easy to navigate, consumers are less likely to experience frustration or decision fatigue, creating a more positive and enjoyable shopping journey. This emotional ease encourages consumers to explore a broader range of products and engage in unplanned purchases driven by emotional gratification. Features such as predictive search options, quick checkout processes, and mobile optimization are instrumental in creating this seamless experience. High service quality also plays a pivotal role in shaping the consumer's overall experience within the online purchasing environment. According to Chen et al. (2019a, b), high service quality encompasses attributes such as prompt response times, reliability, and helpfulness. For instance, responsive customer support, whether through live chat, FAQs, or

efficient complaint resolution systems, enhances consumer trust and satisfaction. A high level of service quality reassures consumers that their needs will be met promptly and effectively, reducing hesitation and encouraging impulse purchases.

Moreover, service quality directly influences consumers' perceptions of the website's professionalism and trustworthiness, which are crucial for fostering emotional security during online shopping (Chung and Shin, 2010). When combined with user-friendly navigation and high interactivity, exceptional service quality creates a comprehensive online experience that not only meets but exceeds consumer expectations. This enriched experience strengthens the emotional and cognitive triggers associated with impulsive buying, ensuring that consumers feel confident and delighted throughout their shopping journey. Ultimately, websites that prioritize ease of use, interactivity, and service quality are better positioned to capitalize on consumers' impulsive tendencies, leading to higher sales and stronger customer loyalty. Thus, we propose the following hypothesis:

H19: Convenience positively influences online impulse buying behaviour.

H20: Convenience positively influences impulse buying tendency.

2.5 Situational factors affecting online impulse buying behaviour

Situational factors influencing impulsive purchases can stem from both an individual's personal circumstances and external factors related to the shopping environment. Personal factors such as financial resources, time availability, family matters, or credit card usage play a significant role in shaping consumers' purchasing behaviour. Additionally, situational factors tied to the retail environment, such as sales promotions, store ambiance, helpful staff, and in-store music, can also impact impulsive buying tendencies (Dholakia, 2000). These factors create an immediate context in which a consumer's decision-making process is influenced by external stimuli and their current situation, leading to impulsive actions. The availability of money is one such personal factor that significantly affects consumer behaviour. It refers to the perception of having a certain amount of budget or extra funds available for spending at a particular moment (Beatty and Ferrell, 1998). When consumers feel that they have sufficient disposable income or unexpected funds, such as a bonus, tax refund, or credit limit, they are more likely to engage in spontaneous purchases. This feeling of financial freedom can reduce the perceived financial risk associated with buying unplanned items and increase their willingness to act on their desires in the moment.

Huang and Hsieh (2011) highlight that consumers may experience heightened arousal when they perceive having extra money to spend, leading to positive emotional states that encourage impulsive behaviour. This emotional arousal often manifests as excitement or pleasure, which amplifies the desire to make purchases without prior intention. When an individual feels that extra funds are available, they may prioritize short-term gratification, leading to decisions driven by emotional impulses rather than rational thought. This emotional shift makes consumers more susceptible to engaging in spontaneous purchases that align with their current desires or moods, rather than their original shopping goals. The availability of money thus acts as a facilitator of impulsive buying behaviour by shifting the consumer's focus toward immediate satisfaction (Luo, 2004). In this context, consumers are more likely to make purchases driven by pleasure, excitement, or a temporary sense of indulgence, as they feel more secure in their financial situation. Moreover, the perception of having extra funds available can trigger a cycle where consumers are more inclined to seek out additional deals or promotions, further enhancing their propensity to make unplanned purchases. This highlights the critical role that situational factors, such as financial resources, play in influencing impulsive buying behaviour, as they create the necessary emotional and cognitive conditions for spontaneous purchasing. Therefore,

H21: Money availability positively influences online impulse buying behaviour.

H22: Money availability positively influences impulse buying tendency.

Nicholls et al. (1997) found that shoppers who spent more time in the store tended to purchase more items and spend more money compared to those who made quicker purchase decisions. This finding suggests that the time a consumer spends in a retail environment plays a crucial role in their purchasing behaviour (Mesiranta, 2009; Jeffrey and Hodge, 2007). When consumers have more time to explore a store or website, they are more likely to engage in impulse buying, as they have the opportunity to encounter more products, reflect on their desires, and experience emotional triggers that prompt spontaneous purchases. In contrast, those who make quicker decisions may limit their browsing, thereby reducing their chances of coming across items that spark impulsive buying behaviour. A key study by Beatty and Ferrell (1998) emphasized the relationship between time spent shopping and impulsive purchasing, concluding that the amount of time a consumer has for shopping influences whether they will engage in impulsive buying behaviour. The researchers suggested that time pressure could either inhibit or encourage impulsivity depending on the circumstances. When consumers have more time to browse and leisurely explore the available options, they are more likely to

succumb to the influence of unplanned purchases. On the other hand, when time is limited, consumers may make more calculated decisions, potentially avoiding impulsive buying. However, in certain cases, time scarcity can also create a sense of urgency, which can paradoxically drive impulsive purchases, as consumers feel compelled to act quickly before missing out on a potential deal.

Foroughi et al. (2012) reported that time availability significantly influenced positive mood, which, in turn, was found to have a significant impact on the urge to make impulsive purchases. When consumers perceive that they have ample time to shop without any pressure, it often enhances their overall shopping experience, leading to a more relaxed and positive mood. This positive mood, in turn, fosters a greater willingness to indulge in spontaneous purchases, as consumers may be more open to emotional gratification. The absence of time constraints allows consumers to immerse themselves more fully in the shopping experience, providing opportunities to engage with the environment and products on a deeper level. This emotional and cognitive state is conducive to impulsive buying, as consumers are more likely to act on their desires and make unplanned purchases driven by enjoyment or pleasure. In this sense, time availability not only affects the emotional and cognitive aspects of shopping but also serves as an enabler of impulsive behaviour. Consumers with more time to shop are more likely to feel relaxed, allowing them to fully explore their options and engage in a more pleasurable shopping experience (Underhill, 1999). Consequently, they become more susceptible to the allure of spontaneous purchases, driven by positive emotions and the desire for immediate gratification. The interplay between time availability, mood, and impulsivity underscores the importance of creating an environment that fosters a relaxed and enjoyable shopping experience, particularly for e-retailers seeking to capitalize on impulsive buying tendencies. Therefore, it is hypothesised that:

H23: Time availability positively influences online impulse buying behaviour.

H24: Time availability positively influences impulse buying tendency.

Consumer purchasing behaviour has undergone a profound transformation due to the emergence and widespread adoption of electronic payment systems, which have redefined the way transactions are conducted in both online and offline environments (Ajouz et al., 2024). Among these systems, credit cards have emerged as a particularly influential tool in shaping purchasing decisions. The option to delay payment when using credit cards introduces a psychological barrier between the act of purchasing and the financial consequences, creating

an illusion of reduced monetary impact. This deferred payment mechanism lowers the perceived cost of purchases in the short term, making it easier for consumers to make immediate buying decisions (Xu et al., 2022). Consequently, credit cards not only facilitate transactions but also act as enablers of impulsive consumption by reducing the immediate financial pain associated with spending.

Prior research further highlights the positive correlation between the number of credit cards owned and the frequency of purchases (Feinberg, 1986). Consumers who own multiple credit cards often exhibit higher spending levels, as the availability of credit creates a sense of financial flexibility and purchasing power. This increased frequency of transactions subsequently enhances impulsive buying behaviour by enabling consumers to make unplanned purchases without immediate financial constraints (Fook and McNeill, 2020). The psychological dynamics associated with credit card usage amplify consumers' willingness to engage in spontaneous purchasing, as the delayed payment structure shifts their focus from the immediate cost to the enjoyment or utility derived from the purchase. Karbasivar and Yarahmadi (2011) further observed that the widespread use of credit cards reflects consumer preferences for prearranged lines of credit. This preference underscores the convenience and accessibility offered by credit cards, allowing consumers to make purchases without the need for immediate cash availability. The prearranged credit acts as a facilitating factor that encourages impulsive behaviour by providing a financial cushion (Hirschman, 1979), reducing the need for careful deliberation before making a purchase. Additionally, the non-tangible nature of credit card transactions, compared to cash payments, minimizes the psychological impact of spending, further encouraging impulsive buying (Robert and Jones, 2001).

Therefore, evidence suggests that credit card usage serves as a facilitating stimulus that influences both the tendency to make impulsive purchases and the resulting impulsive consumption. By providing a seamless and convenient payment method, credit cards remove traditional barriers to spending, such as the need for physical cash or immediate budgeting considerations. This fosters an environment where consumers are more likely to act on impulse, driven by emotional gratification and the perceived ease of payment. In the context of online shopping, where credit cards are often the primary mode of payment, their role in enabling impulsive buying behaviour becomes even more pronounced. Retailers can strategically leverage this dynamic by integrating features such as one-click purchasing or pre-saved payment details, further streamlining the transaction process and enhancing the likelihood of impulsive purchases. Therefore,

H25: Credit card usage positively influences online impulse buying behaviour.

H26: Credit card usage positively influences impulse buying tendency.

2.6 Mediating role of Impulse buying tendency

The first line of inquiry within the research on impulse buying tendency (IBT) has conceptualized it as a relatively stable personality trait, suggesting that individuals' impulsive behaviours align with their inherent levels of impulsiveness. Chen et al., (2016) has predominantly focused on the moderating role of IBT, examining how it influences consumer behaviour across various contexts. The central argument here is that individuals with heightened impulsiveness are naturally predisposed to engage in impulse buying, regardless of external situational triggers. In this view, IBT is seen as a fixed personality characteristic, inherently shaping consumer decision-making processes without significant influence from contextual factors.

Conversely, a contrasting strand of literature positions IBT as a dynamic, situation-specific attribute, influenced by external stimuli rather than being solely determined by intrinsic personality traits. This perspective suggests that impulse buying tendencies can be activated or intensified by contextual factors, such as the lure of instant gratification, promotional deals, or emotional cues. This research have emphasized the mediating role of IBT, examining how it bridges the gap between external stimuli such as sales promotions, website aesthetics, or emotional triggers and consumers' impulsive purchasing decisions (Bandyopadhyay, 2016; Xiang et al., 2016). This perspective highlights the adaptive and context-sensitive nature of IBT, suggesting that even consumers with a lower inherent predisposition for impulsive behaviour may engage in impulsive purchases under the influence of specific situational factors.

Building upon this discussion, Jones et al. (2003) proposed a situational perspective on impulse buying tendency (IBT), highlighting its product-specific nature rather than conceptualizing it solely as a general or fixed personality trait. This interpretation has gained substantial support from subsequent research studies. Although personality traits are conventionally considered relatively stable over time, previous research has not classified impulse buying tendency (IBT) as a foundational or elemental personality trait. Instead, IBT has been framed as a compound trait, serving as an intermediary that links foundational personality dimensions such as emotional instability, materialism, or the need for arousal to specific consumer behaviours, including impulsive purchasing and credit card misuse (Pirog & Roberts, 2007).

Mowen et al. (2007) introduced a comprehensive hierarchical model of traits, consisting of four levels: elemental, compound, situational, and surface traits. Elemental traits are fundamental and long-lasting aspects of personality, while compound traits, like impulse buying tendency (IBT), arise from the interplay of these foundational traits. Situational traits are closely tied to specific contexts, whereas surface traits reflect observable behaviours or tendencies influenced by the interaction of the other three levels. Building on this framework, Sun and Wu (2011) identified IBT as a surface trait, indicating that it reflects a consistent inclination toward impulsive actions in particular contexts, especially in the realm of online shopping. This classification highlights that IBT is influenced by both situational factors such as website features, promotional strategies, and product-specific characteristics and deeper personality traits, rather than being a fixed, inherent attribute.

This refined perspective on IBT highlights the combined influence of enduring personality traits and immediate contextual factors in driving impulsive purchasing behaviour. By conceptualizing IBT as a surface trait, scholars emphasize its flexible and responsive nature, shedding light on the critical role of situational triggers in initiating or intensifying impulsive buying tendencies. For example, factors like time-limited discounts, aesthetically pleasing website layouts, or emotionally persuasive promotional campaigns can serve as stimuli that significantly increase the probability of impulsive purchases. In the context of our study, we conceptualize IBT as a mediating variable, bridging the gap between situational factors such as promotional activities, website-related characteristics, or emotional triggers and online impulse buying behaviour. By positioning IBT as a mediator, we aim to capture its dynamic and situationally influenced nature while acknowledging its roots in deeper personality dimensions. This approach allows us to explore the mechanisms through which external stimuli shape consumer behaviour, providing a comprehensive understanding of how both stable traits and immediate contexts interact to drive impulsive purchasing.

The tendency to engage in impulse buying varies significantly among consumers and is influenced by individual traits associated with impulsivity (Rook and Fisher, 1995). Impulsivity, as a psychological construct, manifests in behaviours characterized by spontaneity and reduced self-regulation. Consumers with a high tendency for impulse buying often exhibit lower levels of self-control, making them more prone to making unplanned purchasing decisions without thoroughly considering potential consequences (Parsad et al., 2017). These individuals often prioritize immediate gratification over rational deliberation, which can lead to impulsive spending patterns.

Chen et al. (2020) further highlighted that consumer desires can escalate rapidly in the presence of tempting stimuli, making individuals with heightened impulsivity traits more susceptible to engaging in impulse buying behaviour compared to those with lower impulsivity tendencies. For instance, visually striking advertisements or limited-time discounts can act as triggers, amplifying the impulsive tendencies of consumers with higher levels of impulsivity. Moreover, these individuals often experience a stronger emotional pull toward acquiring products, driven by their inability to resist immediate desires. In addition to impulsivity, the enjoyment derived from shopping plays a crucial role in shaping impulse buying behaviour. Consumers who perceive shopping as a source of fun, pleasure, and entertainment exhibit a higher propensity to make impulse purchases (Verplanken et al., 2005). For these individuals, the act of shopping transcends functional necessity and becomes a hedonic activity, where emotional satisfaction takes precedence. Hedonic motivation, which refers to the desire to seek emotional pleasure and enjoyment from purchases, is a significant driver of impulsive buying behaviour. This motivation often overrides logical decision-making processes, encouraging consumers to prioritize emotional gratification over practical considerations. Impulse Buying Tendency (IBT) acts as a key internal mediator that enhances the likelihood of impulsive purchasing, particularly among consumers inclined to make spontaneous purchases for emotional satisfaction. Higher IBT individuals are more likely to experience intensified urges to buy when motivated by hedonic desires, such as the joy and excitement associated with the shopping experience (Baumgartner, 2002). For these consumers, shopping becomes an emotionally charged activity, where the pursuit of pleasure is closely intertwined with their decision-making process. This dynamic interaction between IBT and hedonic motivation underscores the psychological mechanisms that drive impulsive buying behaviour, particularly in contexts where emotional gratification is emphasized. Hence,

H27: IBT positively mediates the relationship between Hedonic motivation and online impulse buying behaviour.

Consumers' mood states, whether positive or negative, play a pivotal role in shaping their decision-making processes, often influencing their purchasing behaviours (Trotzke et al., 2020). Positive moods, such as happiness or excitement, can encourage consumers to engage in shopping as a way of enhancing or sustaining those feelings. On the other hand, negative moods, such as sadness, frustration, or anxiety, can drive individuals to purchase as a coping mechanism to alleviate emotional discomfort or seek comfort through retail therapy (Arnold

and Reynolds, 2009). This emotional regulation through purchasing highlights the intricate link between mood and consumer behaviour.

For instance, an individual experiencing stress might find relief in buying products that offer immediate gratification, such as indulgent snacks, clothing, or gadgets, viewing these purchases as a temporary escape from their negative emotional state. Similarly, a consumer in a celebratory mood might be more inclined to make spontaneous purchases as a way of amplifying their joy or treating themselves. These mood-driven buying behaviours underscore the significant impact of emotional states on consumer decision-making (Adaval and Galli, 2022).

Impulse Buying Tendency (IBT) serves as a critical mediator in this dynamic, influencing the degree to which mood states translate into impulsive purchasing actions. Individuals with higher levels of IBT are more prone to act on mood-driven impulses, as their impulsivity amplifies their susceptibility to emotional triggers. For these consumers, emotional states, whether positive or negative, are more likely to transform into spontaneous buying actions without extensive deliberation (Lee and lee, 2019).

For example, a consumer with high IBT who feels stressed might be more likely to purchase an item they associate with comfort or pleasure, such as luxury goods or a meal from their favorite restaurant. Similarly, a consumer with high IBT experiencing a positive mood might seize the moment to splurge on items they consider celebratory or rewarding. This tendency highlights how IBT interacts with emotional states, creating a pathway through which mood-driven impulses are converted into actual purchasing behaviour.

Furthermore, IBT intensifies the emotional gratification associated with these purchases (Zafar et al., 2021). High-IBT individuals may derive greater satisfaction from mood-regulated buying actions because these decisions align with their innate impulsivity. This creates a feedback loop, where the positive reinforcement of emotional regulation through buying further strengthens their impulsive tendencies. By serving as a bridge between mood states and consumer actions, IBT provides a nuanced understanding of how emotional and psychological factors drive impulsive buying behaviour, emphasizing its mediating role in the decision-making process. Thus,

H28: IBT positively mediates the relationship between mood states and online impulse buying behaviour.

Discount offers are a powerful marketing tool that creates a sense of urgency and excitement, compelling consumers to take immediate action (Lo et al., 2016). The time-sensitive nature of discounts, such as limited-time offers or flash sales, often generates a fear of missing out (FOMO), motivating individuals to make quicker decisions to seize the opportunity. This sense of urgency is amplified when discounts are framed as exclusive or rare, further heightening their psychological appeal to consumers. The emotional excitement associated with securing a deal adds to the appeal, making discounted offers a strong stimulus for impulsive buying behaviour.

Impulse Buying Tendency (IBT) plays a crucial role in strengthening this relationship, as it reflects an individual's predisposition to act on spontaneous urges without extensive deliberation. Consumers with high IBT are particularly susceptible to the triggers created by discount offers (Youn and Faber, 2000). The combination of urgency, excitement, and perceived savings aligns closely with their impulsive nature, leading them to act on the perceived opportunity even if the purchase was unplanned. For these individuals, discounts serve as an external cue that amplifies their internal drive to make impulsive purchases.

For instance, a consumer with high IBT may encounter a "50% off today only" promotion and immediately perceive it as a rare opportunity that must not be missed. The emotional appeal of saving money, combined with the urgency created by the limited-time aspect of the offer, overrides their usual decision-making process. They may rationalize the purchase by focusing on the perceived value of the discount rather than considering whether the item is genuinely needed or aligns with their budget (Aydinli et al., 2014).

Moreover, the relationship between discounts and impulsive buying is influenced by the psychological gratification associated with securing a bargain (Wood, 1998). High-IBT individuals often derive a sense of accomplishment or pleasure from capitalizing on discounted offers, which further reinforces their impulsive behaviour. This satisfaction is particularly strong when consumers perceive that they have "won" by obtaining a valuable product at a reduced price, enhancing their emotional connection to the purchase.

The likelihood of responding spontaneously to discounts increases proportionally with the level of IBT (Styven et al., 2017). While low-IBT individuals may take a more calculated approach, carefully evaluating the necessity of the purchase, high-IBT consumers are more inclined to act on impulse. They may prioritize the short-term gratification of the discount over long-term financial considerations, leading to unplanned purchases and, in some cases, buyer's remorse.

In summary, discount offers serve as a potent external stimulus that aligns with the impulsive nature of high-IBT individuals. By creating urgency, excitement, and a sense of value, these promotions effectively trigger spontaneous purchasing decisions. IBT enhances the impact of these offers by predisposing consumers to act quickly and emotionally, often bypassing logical evaluation in favor of immediate satisfaction. This dynamic underscores the importance of understanding individual differences in impulsivity when designing and analyzing the effectiveness of promotional strategies. Thus,

H29: IBT positively mediates the relationship between discount offers and online impulse buying behaviour.

Positive online reviews function as a powerful form of social proof, providing consumers with reassurance about the quality, utility, or desirability of a product. They serve as credible endorsements from other buyers, often influencing purchase decisions by reducing perceived risks associated with a product. This influence is especially potent in digital shopping environments, where consumers rely heavily on the opinions of others to guide their choices (Youn and Faber, 2000). Online reviews often create a perception of popularity or high demand for a product, which can trigger urgency and excitement, further encouraging impulsive buying behaviour.

Impulse Buying Tendency (IBT) amplifies this process by making individuals more receptive to external cues, such as glowing reviews or high ratings. Consumers with high IBT are less likely to engage in extensive deliberation and are more prone to acting on emotional impulses. When exposed to positive online reviews, these consumers may experience an immediate and heightened desire to purchase, interpreting the reviews as a validation of the product's value (Jimenez and Mendoza, 2013). This is particularly true when reviews emphasize emotional benefits, such as how the product has brought joy, convenience, or satisfaction to previous buyers.

For example, a consumer with high IBT browsing an e-commerce website might come across a product with numerous five-star ratings and reviews like “This changed my life!” or “A must-have item!” These statements create a sense of trust and excitement, making the product appear more appealing and desirable. The consumer may quickly envision themselves experiencing the same benefits described in the reviews, triggering an impulsive purchase decision. The persuasive power of reviews is further enhanced when they include specific details, such as

images or videos, which make the product's utility and satisfaction seem tangible and relatable (Katyal and Shegal, 2024).

The influence of positive online reviews on impulsive buying is also linked to the emotional response they evoke. High-IBT individuals are particularly susceptible to emotional triggers, such as the joy or excitement conveyed through enthusiastic reviews (Nguyen and Nguyen, 2024). This emotional resonance can bypass rational considerations, such as whether the product is truly needed or affordable, and lead to an immediate purchase.

Additionally, the dynamic nature of online shopping platforms, where reviews are prominently displayed alongside product listings, reinforces their impact on high-IBT consumers. Features such as “Top-rated” badges or highlighted customer testimonials act as direct cues, simplifying decision-making and encouraging spontaneous behaviour (Le et al., 2025). High-IBT individuals are likely to interpret these signals as compelling reasons to act immediately, without taking the time to compare alternatives or evaluate their actual need for the product.

In summary, positive online reviews are a potent external influence that can effectively stimulate impulsive buying behaviour, particularly among consumers with high IBT. By providing social proof, evoking emotional responses, and creating a sense of urgency, these reviews enhance the appeal of products and encourage immediate purchases. IBT serves as a crucial internal mediator in this process, making impulsive consumers more likely to act on the persuasive power of reviews and prioritize emotional gratification over careful decision-making (Astuti and Nindyaswari, 2022). This highlights the importance of understanding the interplay between social proof and individual impulsivity in shaping online consumer behaviour. Thus,

H30: IBT positively mediates the relationship between online reviews and online impulse buying behaviour.

Online campaigns, including targeted promotions, advertisements, and personalized offers, are strategically designed to capture the attention of potential customers and spark immediate interest in products or services. These campaigns often rely on tactics like urgency (e.g., “limited-time offers”), exclusivity (e.g., “members-only discounts”), and emotional appeal (e.g., “feel-good shopping experiences”) to nudge consumers toward making quick purchase decisions (Chen and Li, 2020). The persuasive nature of these campaigns—through discounts, free shipping, or enticing visuals—can bypass the traditional deliberation process that many consumers engage in before making a purchase.

For consumers with a high Impulse Buying Tendency (IBT), these online campaigns are particularly effective in catalyzing spontaneous purchasing behaviour. IBT serves as a psychological driver, amplifying the consumer's natural inclination to act on immediate stimuli without fully assessing the long-term consequences or necessity of the purchase (Huang et al., 2024). The heightened emotional arousal and excitement created by online promotions can significantly influence the decision-making process for these individuals, making them more likely to engage in impulsive purchases.

When high-IBT individuals encounter targeted ads or tailored promotions, their cognitive filters are more likely to be bypassed, and they are more inclined to act on the immediate gratification the offers promise. For instance, a flash sale notification or a pop-up ad offering a limited-time discount might evoke an emotional response, such as excitement or anticipation, making it difficult for these consumers to resist acting on the offer. The promotional messaging taps into their impulsivity, making them more prone to prioritize the short-term emotional reward of the purchase over the long-term rational decision-making process (Nablsi, 2024).

Additionally, the personalized nature of these online campaigns further amplifies their impact on high-IBT consumers. Tailored promotions, based on browsing history or past purchase behaviour, can create a sense of relevance and personal connection with the consumer. When these consumers see an ad that aligns with their specific preferences or needs, the psychological pull to act quickly becomes even stronger. For instance, a consumer who frequently buys fashion items might receive an ad for a 50% off sale on new arrivals, which would not only appeal to their desire for novelty but also trigger a sense of urgency. This sense of personalized relevance, paired with the time-sensitive nature of the offer, heightens the consumer's emotional engagement and the likelihood of an impulsive purchase (Platon, 2024).

Furthermore, the immediacy and accessibility of online shopping contribute to the impulse-buying process. Consumers can complete their purchase in just a few clicks, removing barriers to decision-making and further facilitating the impulsive buying process. The ease of access to products combined with persuasive promotional messages creates an environment where high-IBT consumers feel compelled to make purchases almost instantaneously (Mittal et al., 2016).

In summary, online campaigns that employ targeted promotions, urgency, and emotional appeals act as powerful catalysts for impulsive buying behaviour, particularly for individuals with high IBT. The role of IBT as a psychological mediator in this process enhances the effectiveness of these campaigns by driving consumers to act on external stimuli. For

consumers with a high tendency toward impulse buying, the emotional arousal and urgency created by these online campaigns make it easier to succumb to spontaneous purchasing decisions, ultimately leading to an increase in impulsive consumer behaviour in the digital shopping environment. Understanding the interplay between IBT and online campaigns can help retailers better design marketing strategies that effectively capitalize on consumers' impulsive tendencies. Thus,

H31: IBT positively mediates the relationship between online campaigns and online impulse buying behaviour.

Personalized product recommendations have become a cornerstone of online retail strategies, leveraging advanced algorithms and consumer data to suggest items that align with individual preferences, browsing history, or past purchases (Vashishth et al., 2025). These recommendations are designed to feel tailored to the consumer, creating a sense of relevance and increasing the likelihood that the consumer will engage with the product (Chandra et al., 2022). In many cases, these suggestions appear in real-time during the consumer's browsing experience, making them immediate and accessible, which is a key factor in triggering impulsive buying behaviour.

For consumers with a high Impulse Buying Tendency (IBT), personalized recommendations hold a particularly strong influence. Individuals with a high IBT are more susceptible to external cues that trigger emotional responses (Anoop and Rahman, 2024), and personalized product suggestions effectively tap into this vulnerability. When an item is presented as "just what they were looking for," or even better, "something they didn't know they needed," it activates the emotional reward systems in the brain, making the purchase feel like an instant gratification. This type of recommendation bypasses the traditional rational thought process, where consumers evaluate the necessity or long-term value of the item, and instead capitalizes on the consumer's emotional drive for immediate fulfillment.

The relevance of personalized recommendations further enhances their impact on high-IBT consumers. By using data such as browsing behaviour, purchase history, or even social media activity, online retailers are able to suggest products that feel highly relevant to the individual. This relevance increases the perceived value of the recommendation, making it easier for the consumer to justify the purchase. For example, if a consumer frequently browses outdoor gear or camping equipment, a personalized suggestion for a highly rated tent or sleeping bag may feel like an ideal fit, even if the consumer had not planned to make a purchase.

Moreover, personalized recommendations can create a sense of exclusivity, which further stimulates impulsive behaviour (Kerley, 2024). High-IBT individuals are particularly drawn to offers that seem unique or specially tailored for them. For instance, seeing a product recommendation accompanied by a message like "Recommended for You" or "Because You Liked X," triggers a feeling of personal connection and can evoke a sense of urgency. This sense of being catered to by the retailer can make the consumer feel like the opportunity is one that should be seized immediately, before the recommendation disappears or the product goes out of stock.

The dynamic nature of online shopping experiences also plays a role in making personalized recommendations powerful triggers for impulsive buying. As these recommendations are often updated in real-time, they reflect the consumer's most recent browsing behaviour, and can quickly tap into the consumer's current emotional state or desire (Konstan and Riedl, 2012). For example, if a consumer has been browsing items related to a specific event (such as a concert or a vacation), personalized recommendations for products that are contextually relevant to that event can create a sense of immediacy and relevance, prompting an impulse purchase that might not have occurred otherwise.

Personalized product recommendations, therefore, serve as an effective stimulus for high-IBT consumers, triggering emotional responses that drive spontaneous purchasing decisions. By creating a sense of relevance, urgency, and even exclusivity, these recommendations align perfectly with the emotional and psychological tendencies of impulsive buyers. As these suggestions become more accurate and context-aware, they will likely become even more potent triggers for impulse buying behaviour, highlighting the importance of understanding consumer tendencies and preferences when designing personalized marketing strategies. For retailers, harnessing the power of personalized recommendations can result in significant increases in impulsive purchases, especially when combined with other promotional strategies such as time-sensitive offers or discounts (Chandrasekhar et al., 2024).

In conclusion, personalized recommendations act as a powerful catalyst for impulsive buying behaviour, particularly for consumers with a high IBT. By aligning the product offering with the consumer's preferences and immediate emotional triggers, these recommendations enhance the likelihood of spontaneous purchases. Retailers that leverage personalized recommendations effectively can capitalize on the emotional and psychological factors that drive impulse buying, ultimately fostering increased consumer engagement and sales. Thus,

H32: IBT positively mediates the relationship between product recommendations and online impulse buying behaviour.

Limited-time deals are a popular strategy used by retailers to create a sense of urgency among consumers, driving them to make quicker purchasing decisions. These deals, often framed as time-sensitive or exclusive, leverage the psychological principle of scarcity, which triggers a fear of missing out (FOMO). The limited availability of the deal or the countdown timer enhances the perceived value of the offer, encouraging consumers to act swiftly before the opportunity disappears (Gabler and Reynolds, 2013). The short time frame often reduces the opportunity for consumers to deliberate on their decision, prompting more spontaneous and emotionally-driven purchases.

In this context, Impulse Buying Tendency (IBT) plays a significant mediating role in the purchasing decision. Consumers with high IBT are more susceptible to external stimuli that prompt immediate, emotional responses, and limited-time offers are particularly effective at triggering such reactions (Shah, 2020). These individuals are already predisposed to act on their impulses and seek instant gratification. For them, the perceived urgency of the deal does not provide time for rational deliberation or comparison but instead intensifies the emotional pull to act. The ticking clock or the message "limited stock" heightens their desire to secure the deal before it's gone, amplifying the likelihood of making an impulsive purchase.

The fear of missing out (FOMO) is a critical psychological trigger that is intensified by limited-time deals (Patel et al., 2024), particularly for high-IBT consumers. This phenomenon taps into a deep-seated fear of losing out on a potential opportunity, whether it be a discount, a unique product, or a special offer. FOMO can override rational decision-making processes, making individuals more likely to purchase impulsively (Hamizar et al., 2024). For consumers with high IBT, the emotional drive to avoid regret or the sense of missing out on a good deal becomes more compelling than the logical assessment of whether they truly need or desire the product.

Furthermore, the heightened emotional state induced by time-limited offers can lead to a reduction in the cognitive processing of the purchase (Liang and Lin, 2023). When consumers feel a sense of urgency, their decision-making processes tend to become more instinctive and emotional, and less deliberative. For those with high IBT, this emotional activation drives them to act quickly, without fully considering the consequences of their actions. In essence, the

urgency created by limited-time deals activates an impulsive response, especially when consumers are already predisposed to make quick, emotion-driven decisions.

Moreover, the effectiveness of limited-time deals can also be enhanced by their presentation. The use of countdown timers, flashing banners, or even social proof (Tuncer et al., 2024), further amplifies the sense of urgency and scarcity, compelling individuals with high IBT to act fast. These visual cues act as triggers that further exacerbate the emotional drive to make an impulsive purchase. The more attention-grabbing and compelling the deal appears, the more likely it is to elicit an immediate reaction from high-IBT consumers.

In conclusion, limited-time deals are powerful tools for inducing impulsive buying behaviour, particularly among consumers with high IBT. The sense of urgency and FOMO created by these deals is amplified by the emotional tendencies of individuals predisposed to impulse buying. For high-IBT consumers, these time-sensitive offers serve as a catalyst for impulsive decision-making, with the fear of missing out being a key driver of the purchasing process. As such, limited-time deals can be highly effective in driving immediate sales, especially when coupled with the psychological influences of urgency and scarcity. Retailers can further capitalize on this by strategically presenting these offers in ways that align with consumers' emotional responses, enhancing the likelihood of impulsive purchases. Thus,

H33: IBT positively mediates the relationship between limited time deals and online impulse buying behaviour.

A visually appealing website design plays a crucial role in shaping consumers' emotional experiences while browsing online. The aesthetic elements of a website, such as its layout, color scheme, imagery, and overall user experience, can significantly influence a consumer's mood and emotional state. Positive emotional reactions to aesthetically pleasing designs can increase a consumer's desire to engage with the website, thereby creating an environment conducive to impulse buying. According to Wells et al. (2011), the aesthetic appeal of a website functions as a powerful stimulus, eliciting emotional responses that can drive immediate purchasing behaviour.

The impact of this emotional response is further amplified by an individual's Impulse Buying Tendency (IBT). For consumers with a high IBT, the emotional effects triggered by a visually attractive website are more intense, leading them to make quicker and more spontaneous decisions. IBT acts as a mediator by enhancing the emotional reaction to aesthetic elements of the site, which in turn increases the likelihood of engaging in impulsive purchases. High-IBT

individuals are more inclined to act on their emotions and less likely to deliberate on their decisions, making them particularly susceptible to the visual stimuli presented by an appealing website design.

The aesthetic appeal of a website does not merely create a positive mood; it can also foster a sense of connection or affinity with the brand, heightening emotional investment. For example, elements such as high-quality images, harmonious color combinations, or easy-to-navigate layouts can evoke feelings of enjoyment, excitement, or trust, all of which contribute to an impulsive buying mindset. When combined with IBT, this emotional engagement can override rational thinking, making it easier for consumers to make a purchase without prior planning or consideration.

Moreover, the role of aesthetic appeal in driving impulse buying is not limited to passive reactions. Visually stimulating websites often encourage exploration, where consumers are more likely to browse and discover products they may not have originally intended to purchase. The more visually engaging a site is, the more time consumers may spend on it (Hausman and Siekpe, 2009), increasing exposure to products and promotional offers that can trigger spontaneous purchasing decisions. For high-IBT consumers, this extended engagement heightens their emotional investment, further increasing the likelihood of impulse buying.

In essence, the design and aesthetic appeal of an online store serve as key triggers for impulse buying behaviour (Lo and Lin, 2013). However, the strength of this influence is contingent upon the consumer's inherent tendency towards impulse buying. For individuals with a high IBT, aesthetically pleasing website designs act as powerful emotional cues that drive them to make purchases spontaneously. Thus, IBT not only mediates the effect of visual appeal but also determines the degree to which such stimuli influence purchasing behaviour, with those possessing higher IBT more likely to act on their emotional responses and make impulsive buying decisions. Thus,

H34: IBT positively mediates the relationship between website aesthetics and online impulse buying behaviour.

Consumers' concerns about security and privacy are pivotal in shaping their online shopping behaviour, particularly when it comes to impulsive buying decisions. According to Karim et al. (2021), when shoppers perceive risks related to data privacy or the security of their transactions, they are less likely to engage in spontaneous purchases. In contrast, when these concerns are effectively mitigated through visible security features such as SSL certificates,

trust badges, and clear privacy policies, consumers feel more confident in their online transactions. This reassurance can play a significant role in lowering barriers to impulse buying, making them more likely to act on spontaneous urges to purchase (Zou, 2015).

For individuals with a high Impulse Buying Tendency (IBT), the impact of security and privacy assurance is even more pronounced. These consumers are already predisposed to act impulsively, and the presence of security measures amplifies their confidence and sense of trust. When they feel assured that their personal and financial information is protected, they are less likely to hesitate before making a purchase (Warrington and Abgrab, 2000). The removal of security-related concerns allows high-IBT individuals to focus more on the emotional satisfaction of the shopping experience, which often leads to quicker and more spontaneous buying decisions.

This dynamic is particularly important in online environments where the consumer cannot physically inspect products or interact with sales staff, making security and privacy assurances all the more vital. For high-IBT consumers, the psychological comfort provided by secure online shopping platforms reduces friction in the decision-making process, encouraging them to act on their immediate desires to purchase, often without extensive consideration.

Furthermore, the presence of robust security features not only alleviates concerns but also enhances the overall shopping experience, leading to greater emotional satisfaction and trust in the retailer (Bawack et al., 2021). This sense of security fosters a positive emotional state, which can trigger impulsive behaviour. As high-IBT consumers become more emotionally engaged and secure in the online environment, they are more likely to seize on time-sensitive offers, discounts, or promotions, further driving impulsive purchases.

In essence, a secure and private online shopping environment serves as a key enabler for impulse buying behaviour, especially for consumers with high IBT. By alleviating security and privacy concerns, retailers create a conducive environment where consumers are more willing to act on their emotional impulses, making impulsive purchasing decisions more likely (Hayu et al., 2020). The combination of a secure shopping experience and heightened IBT creates a powerful psychological driver that increases the propensity for spontaneous buying behaviour. Thus,

H35: IBT positively mediates the relationship between security and privacy and online impulse buying behaviour.

The convenience of online shopping plays a crucial role in encouraging impulsive purchasing behaviour, particularly through elements such as easy website navigation, fast checkout, and quick delivery options. According to Verhagen and Dolen (2011), the more seamless and effortless the online shopping experience, the more likely consumers are to make impulsive purchasing decisions. The reduced friction in the shopping process allows consumers to act swiftly on their immediate desires without being hindered by complex navigation or prolonged purchasing procedures (Kang and Kim, 2006).

When the shopping experience is streamlined, individuals with a high Impulse Buying Tendency (IBT) are more likely to make spontaneous decisions due to the ease and efficiency of the process (Anwar, 2024). A well-designed online store with simple navigation, clear product information, and quick checkout provides minimal barriers to action, making it easier for impulsive consumers to act on their urges without unnecessary delays or distractions. In this way, convenience serves as an enabler for individuals with high IBT, as it reduces the time and cognitive effort required to make a purchase, thereby increasing the likelihood of impulsive buying behaviour.

Moreover, quick delivery options further enhance this effect, as fast gratification receiving the product in a short period of time appeals to the immediate emotional satisfaction sought by impulsive buyers. For high-IBT individuals, the anticipation of rapid product delivery heightens the desire to purchase spontaneously, as the perceived value of immediate gratification outweighs any lingering doubts or considerations about the product.

The relationship between convenience and IBT also ties into the idea of minimizing cognitive overload. When the purchasing process is straightforward, high-IBT consumers are less likely to engage in extensive deliberation or risk assessment. Instead, they are more likely to be guided by emotional impulses, responding to the convenience of the process in a way that fosters quick, unplanned decisions.

Furthermore, the convenience of online shopping enhances consumers' overall satisfaction with their shopping experience, creating a positive emotional state that encourages more spontaneous purchases (Duarte et al., 2018). For high-IBT individuals, this positive emotional engagement serves as a strong motivator, reinforcing the likelihood of impulse buying.

In summary, the ease and convenience of the online shopping process significantly enhance impulsive purchasing tendencies, especially for consumers with higher IBT. The reduction in friction provided by streamlined navigation, quick checkout, and rapid delivery options acts as

a catalyst, enabling high-IBT consumers to respond more easily to their spontaneous desires. As a result, retailers can leverage convenience as a key factor in driving impulsive buying behaviour, particularly when targeting consumers with a higher predisposition to act impulsively. Thus,

H36: IBT positively mediates the relationship between convenience and online impulse buying behaviour.

When consumers have access to disposable income or perceive that they have extra funds available, they are significantly more inclined to engage in spontaneous purchasing behaviour. This financial flexibility creates a sense of freedom that reduces the psychological barriers typically associated with spending decisions. As noted by Luo (2005), the availability of money serves as a key situational factor that encourages unplanned purchases by fostering a perception of affordability and abundance.

Impulse Buying Tendency (IBT) mediates this relationship by amplifying the likelihood that individuals with higher IBT will act on the perceived opportunity to spend. For these consumers, the presence of financial resources acts as a psychological trigger, enabling them to indulge in their spontaneous desires without concern for the potential financial consequences. The combination of financial freedom and high IBT creates a potent environment for impulsive behaviour, as these individuals are more likely to rationalize their purchases with thoughts such as "I can afford it right now" or "This won't significantly impact my finances."

Moreover, the psychological effect of having money readily available can also create a sense of empowerment or emotional arousal, which is often linked to impulsive behaviour (Beatty and Ferrell, 1998). This is particularly relevant for high-IBT consumers, who are more attuned to emotional cues and are driven by the immediate gratification that comes with making a purchase. The availability of money not only reduces the perceived risk of financial strain but also enhances the emotional appeal of the product or service (Huang and Hsieh, 2011) making impulsive buying decisions more likely.

Additionally, having financial resources available may lower the cognitive effort required to evaluate the necessity or value of a potential purchase. High-IBT individuals, who are already predisposed to acting on impulse, are less likely to deliberate over whether a purchase is necessary or justified when money is readily accessible. Instead, they are more likely to focus

on the immediate satisfaction or pleasure associated with the purchase, bypassing rational decision-making processes.

Retailers often exploit this dynamic by targeting consumers with promotions or discounts that create the illusion of greater financial freedom, such as "buy now, pay later" schemes or loyalty programs that offer rewards for spending. These strategies are particularly effective for individuals with high IBT, as they encourage spontaneous purchases by reinforcing the perception that money is available or that the consumer is getting more value for their spending.

In summary, the availability of money acts as a powerful enabler for impulsive buying behaviour, particularly for consumers with high IBT. The financial freedom to spend not only reduces the psychological and practical barriers to purchasing but also enhances the emotional appeal of buying, turning financial availability into a compelling trigger for impulsive decisions. Thus,

H37: IBT positively mediates the relationship between money availability and online impulse buying behaviour.

When consumers have ample time available, they are more likely to engage in exploratory shopping behaviours, such as browsing through product categories, reading reviews, or comparing options. This unhurried state fosters curiosity and allows individuals to immerse themselves in the shopping experience, which can significantly increase the likelihood of impulsive purchasing (Arfani, 2020). Time availability provides the mental bandwidth for consumers to focus on product discovery rather than rushing to complete a purchase. This relaxed mindset encourages spontaneous decision-making, especially when they come across products that capture their interest or align with their immediate desires.

Impulse Buying Tendency (IBT) strengthens this dynamic by acting as an internal motivator that amplifies the connection between time availability and impulsive purchases. For individuals with high IBT, the opportunity to explore a wide range of products without the pressure of time constraints enhances their susceptibility to external triggers, such as appealing product displays, persuasive advertisements, or attractive discounts. The additional time allows these consumers to dwell on the potential pleasure or excitement associated with unplanned purchases, making them more likely to act on impulse.

Moreover, the presence of time availability can reduce the psychological barriers associated with making quick decisions. Consumers are more inclined to rationalize their spontaneous purchases when they feel they have thoroughly explored their options. High-IBT individuals,

in particular, may interpret the extra time as an opportunity to indulge in their impulsive tendencies, often justifying their actions by telling themselves they've carefully considered the purchase.

Retailers often leverage time availability by designing engaging online and in-store environments that encourage prolonged browsing. Features such as personalized product recommendations, interactive website interfaces, or in-store experiences like sampling and demonstrations create an atmosphere conducive to exploration. These elements can capitalize on the consumer's available time, further amplifying impulsive buying behaviours, especially for those with high IBT.

In summary, time availability serves as a critical situational factor that fosters impulsive buying by giving consumers the mental space to explore and engage with shopping stimuli (Husnain et al., 2019). IBT amplifies this effect by making individuals more susceptible to the emotional and sensory cues encountered during prolonged shopping experiences. Together, these elements create a fertile environment for impulsive decisions, with time availability acting as the enabler and IBT serving as the psychological driver. Thus,

H38: IBT positively mediates the relationship between time availability and online impulse buying behaviour.

Credit card usage facilitates swift and seamless transactions, removing many of the perceived obstacles associated with making purchases, such as the immediate outflow of cash (Feinberg, 1986). This ease of use can significantly encourage impulsive buying behaviour, as it provides consumers with an accessible and convenient payment method that enables them to act on spontaneous desires without hesitation. The "buy now, pay later" nature of credit cards also creates a psychological detachment from the financial impact of a purchase, reducing the guilt or second thoughts typically associated with spending money (Robert and Jones, 2001).

Impulse Buying Tendency (IBT) mediates this relationship by enhancing the likelihood that consumers with higher impulsivity traits will take advantage of the convenience offered by credit cards to make unplanned purchases. For these individuals, the frictionless nature of credit card transactions aligns with their predisposition to act on immediate desires, effectively lowering the threshold for impulsive behaviour. The availability of credit cards becomes a powerful enabler, transforming fleeting wants into immediate actions.

Moreover, the psychological comfort provided by credit cards such as the perception of financial flexibility further strengthens the connection between IBT and impulsive purchases.

High-IBT individuals may feel emboldened to spend on items they find desirable in the moment, knowing they can delay payment or spread it over time. This delayed financial accountability can serve as a justification mechanism, making impulsive purchases seem more manageable and less risky.

Retailers and marketers often capitalize on this dynamic by offering credit card incentives such as cashback, reward points, or exclusive discounts. These additional benefits not only encourage the use of credit cards but also act as external triggers that amplify impulsive behaviour (Karbasivar and Yarahmadi ,2011). For high-IBT individuals, such incentives provide an added layer of motivation to act on their impulsive tendencies, often leading to higher spending and increased unplanned purchases. Additionally, credit cards can serve as a psychological buffer in social or emotional contexts. For instance, consumers may use credit cards to make spontaneous purchases when influenced by peer pressure, emotional triggers, or celebratory occasions. High-IBT individuals are particularly susceptible to such situational factors, and the convenience of credit cards makes it easier for them to translate these impulses into actions.

In summary, credit card usage plays a pivotal role in facilitating impulsive buying by offering convenience, flexibility, and psychological detachment from the immediate financial impact of purchases. IBT strengthens this relationship by making individuals with a high tendency for impulsive behaviour more likely to take advantage of these features, turning credit cards into a powerful catalyst for unplanned spending. Together, credit card usage and IBT create a dynamic interplay that significantly increases the likelihood of impulse buying, particularly in environments designed to trigger spontaneous decision-making.

***H39:** IBT positively mediates the relationship between credit card usage and online impulse buying behaviour.*

2.7 Online impulse buying behaviour

Impulse buying is characterized as an unplanned and spontaneous purchasing behaviour driven by emotional impulses and the desire for immediate gratification (Stern et al., 1962). Unlike rational or planned purchasing decisions, impulse buying is triggered by an emotional reaction to stimuli, bypassing the usual cognitive evaluation of needs and consequences. This type of behaviour is often associated with a sudden and overwhelming urge to buy, where the decision-making process is driven more by emotions than by logic or practicality.

Impulse Buying Tendency (IBT) is conceptualized as a stable consumer trait that drives immediate, unreflective, and unintended purchasing behaviour (Atulkar and Kesari, 2018). Individuals with a high level of impulsivity exhibit reduced cognitive control, meaning their decisions are less guided by deliberation and more by instantaneous emotional responses (Dawson and Kim, 2009). This diminished self-regulation increases their susceptibility to external triggers, making them more likely to engage in impulse buying. For example, impulsive individuals may feel an intense need to purchase an item simply because it evokes excitement or satisfaction in the moment, even if the item is not required or useful.

Foroughi et al. (2013) observed that marketing stimuli, such as advertisements, promotional gifts, or limited-time deals, strongly influence shoppers with high IBT. These stimuli often tap into emotions like joy, excitement, or curiosity, making it difficult for high-IBT individuals to resist their impulsive urges. Such consumers are more likely to spend extended periods browsing through products, increasing their exposure to various marketing cues. The longer they browse, the higher the likelihood of responding to spontaneous urges to make purchases, demonstrating how IBT interacts with external triggers to shape consumer behaviour.

Tobon and Abril (2024) noted that impulse buying is often stimulated by external environmental cues, such as eye-catching displays, persuasive advertisements, or in-store promotions. These external cues act as powerful psychological triggers, creating a sense of urgency or excitement that compels individuals to act on their impulses. Shao (2024) further emphasized that these stimuli are not limited to environmental factors but also encompass individual personality characteristics, such as susceptibility to emotional appeals or a natural inclination toward risk-taking.

Salehudin and Alpert (2022) argued that impulse purchases are primarily driven by emotional appeal rather than rational objectives. For instance, the emotional gratification of owning a desirable product often outweighs any practical considerations, leading consumers to prioritize immediate satisfaction over long-term financial or practical goals. This emotional drive underscores the critical role of affective responses in shaping impulsive buying behaviour, as consumers are often drawn to products that elicit feelings of joy, excitement, or fulfillment.

Internal and external stimuli both play a significant role in increasing the likelihood of impulse buying behaviour (Kimiagari & Malafe, 2021). Internal stimuli may include emotional states such as excitement, stress, or boredom, which predispose consumers to make impulsive decisions. On the other hand, external stimuli, such as promotional offers or visually appealing

product displays, serve as catalysts that trigger these impulsive responses. The interaction between internal predispositions and external triggers creates a dynamic environment where impulsive purchases are highly likely.

Iyer et al. (2020) also found that IBT has a significant influence on consumers' impulsive buying behaviour. High-IBT individuals are more sensitive to stimuli that evoke positive emotional responses, making them more likely to act on impulses in the presence of external cues. Whether it's the thrill of finding a bargain or the appeal of an aesthetically pleasing product, these consumers are driven by the immediate gratification these experiences provide.

Thus, a positive relationship exists between IBT and impulse buying behaviour (Badgaiyan et al., 2016). This relationship highlights the central role of IBT in mediating the influence of various factors—such as marketing cues, emotional states, and situational triggers—on impulsive purchasing decisions. High-IBT individuals are particularly susceptible to these influences, making them a key demographic for marketers aiming to encourage spontaneous purchases. Understanding this relationship offers valuable insights into the psychological and environmental factors that drive impulse buying, enabling more targeted strategies to engage consumers in the moment. Therefore, we hypothesise:

H40: IBT has a positive relationship with online impulse buying behaviour.

2.8 Research Gaps

Recognizing gaps in the existing body of knowledge is a vital step in advancing research within a particular domain. These gaps may arise in various forms, including theoretical, methodological, or empirical deficiencies. Identifying these voids provides researchers with an opportunity to formulate a focused research agenda. By addressing these knowledge deficits, researchers can refine their objectives and design studies that contribute meaningfully to the field. Following a comprehensive analysis of the literature, several key research gaps have been highlighted.

While individual traits (Verplanken and Sato, 2011), promotional activities (Hasim, 2018), website-related attributes (Parboteeah, 2009), and situational factors (Foroughi, 2012) have been studied independently, there is a paucity of research that combines these factors to understand their collective influence on online impulse buying. For example, while hedonic motivation has been linked to impulse buying tendency (Madhu and Soundararajan, 2023), and promotional activities like discount offers, limited time deals have been shown to spur

spontaneous purchasing (Sujaya, 2023), the combined effect of these factors remains underexplored. Similarly, website aesthetics can enhance the shopping experience (Thorlacious, 2007), but its impact may be magnified when paired with the sense of urgency created by limited-time promotions. The individual's mood (Norris and Brookes, 2021), financial flexibility (Frigerio and Ottaviani, 2020) or even the security measures (Chen et al., 2019) provided by a website can each affect how susceptible a person is to impulsive purchases, but the way in which these elements interact is not sufficiently understood.

Research has primarily focused on direct relationships between different factors and impulse buying behaviour (Atulkar and Kesari, 2018). While these studies provide valuable insights into what triggers impulse purchases, they often overlook a critical psychological component: Impulse Buying Tendency (IBT). It is an inherent personality trait that significantly influences how external stimuli (like a promotional offer or a specific mood state) translate into actual buying behaviour (Chen et al., 2020). Moreover, understanding IBT's role as a mediating variable allows for a deeper exploration of consumer psychology. It can explain why two consumers might respond differently to the same promotional offer or why the same individual might make an impulsive purchase in one context but not in another.

Most existing studies on impulse buying behaviour have primarily focused on developed economies (Muruganantham and Bhakat, 2013), where consumer behaviour is often shaped by relatively stable socio-economic conditions, advanced technological infrastructure, and established retail environments. While these studies provide valuable insights, they fail to account for the distinctive cultural, socio-economic, and technological dynamics that characterize emerging markets, particularly in countries like India. As a result, the findings and models developed in these contexts may not be fully applicable or relevant to consumers in emerging markets, where shopping behaviours can be influenced by different sets of factors.

Despite the growing interest in online impulse buying, the role of website-related factors and situational variables remains under-researched. While different website related factors are known to impact customer satisfaction (Luo et al., 2012), their influence on triggering impulse purchases is not well-explored. The emotional impact of visually appealing websites or the confidence instilled by secure platforms can significantly affect impulsive behaviour (Zhao et al., 2021), yet they have not been sufficiently studied in this context. Similarly, situational factors such as money availability, time availability, and credit card usage are often regarded

as secondary influences, despite their direct role in enabling or constraining impulsive purchases.

With the rapid advancements in AI and personalized marketing, factors like online reviews and recommendation algorithms have become pivotal in shaping online shopping behaviour (Katyal and Sehgal, 2024). However, despite their growing significance, their impact on impulse buying behaviour remains underexplored in existing research. While some studies have touched on the role of personalized recommendations and reviews in driving consumer interest (Ziakos and Vlachopoulou, 2023), few have delved into how these factors specifically trigger impulsive purchases, particularly in the context of online shopping. This gap in the literature limits our understanding of the psychological processes behind impulse buying, especially when these personalized marketing tools interact with individual predispositions such as Impulse Buying Tendency (IBT).

A review of the existing literature reveals a significant reliance on descriptive or fragmented analytical approaches that do not fully capture the mediating role of impulse buying tendency or the combined effect of individual, promotional, website-related, and situational factors. Moreover, many studies do not adopt rigorous estimation techniques to validate these relationships using actual consumer data. This study overcomes these limitations by applying a data-driven estimation method Partial Least Squares Structural Equation Modeling (PLS-SEM) to simultaneously assess multiple direct and indirect effects. This approach allows for more precise modeling of the complex dynamics influencing OIB.

While previous studies have utilized the Stimulus-Organism-Response (S-O-R) framework (Shen and Khalifa, 2012; Wu and Lee, 2016; Zhu et al., 2020; Ampadu et al., 2022), they have not comprehensively examined the full spectrum of stimuli, such as individual, promotional, website-related, and situational factors, that collectively influence online impulse buying behaviour. The present study aims to address this limitation by incorporating these diverse stimuli into the framework, thereby offering a more holistic understanding of their combined effects on consumer behaviour. Additionally, prior research utilizing the Consumption Impulse Formation Enactment model (CIFE) model within the context of impulse buying behaviour remains scarce (Zhao et al., 2019). The current research builds on this gap by applying the CIFE model, thereby extending its application in this domain. Furthermore, the application of Self-Determination Theory (SDT) to examine impulse buying behaviour represents a novel contribution, as this theory has not been extensively explored in this field. By leveraging SDT,

this study provides fresh insights into the psychological mechanisms driving impulsive purchases. The use of the Competitive Arousal Model in impulse buying research has also been notably limited (Wu et al., 2021). By integrating this model, the study offers a unique perspective on how competitive elements, such as urgency or scarcity, stimulate impulsive buying tendencies. This research not only presents a novel theoretical framework but also integrates multiple theories to examine the diverse factors influencing online impulse buying behaviour. Furthermore, the study emphasizes the mediating role of Impulse Buying Tendency (IBT) in these relationships, highlighting its importance as a psychological mechanism that links external stimuli to actual purchasing decisions. This theoretical integration, which synthesizes the S-O-R framework, CIFE model, SDT, and the Competitive Arousal Model, represents a significant advancement in understanding the interplay of factors affecting online impulse buying behaviour.

2.9 Conceptual Framework

The conceptual framework offers a comprehensive depiction of the variables incorporated in the study, emphasizing their interrelationships and the pathways to be examined. Informed by the insights gained from the literature review and the developed hypotheses, Figure 2.1 illustrates the hypothesized connections among the key variables. This study adopts a comprehensive conceptual framework to investigate the drivers of online impulse buying behaviour (IBB), positioning impulse buying tendency (IBT) as a central mediating construct. Drawing on a multi-theoretical foundation including the Stimulus-Organism-Response (S-O-R) framework, Self-Determination Theory (SDT), the Consumption Impulse Formation and Enactment Model, and the Competitive Arousal Model, the framework classifies influencing variables into four categories: individual, promotional, website-related, and situational factors. Individual factors, such as mood states and hedonic motivation, represent internal psychological conditions that shape consumer predispositions and are aligned with the “Organism” in the S-O-R framework and the motivational dimensions of SDT. Promotional elements, including discount offers, reviews, recommendations, limited-time deals, and online campaigns, serve as external stimuli that trigger urgency and emotional arousal, particularly under conditions of scarcity, as explained by the Competitive Arousal Model. Website-related features such as aesthetics, security/privacy, and convenience form the digital environment that shapes cognitive and affective responses and facilitate the impulse enactment process, consistent with the Consumption Impulse Formation and Enactment Model. Situational factors, including money availability, time availability, and credit card usage, reflect context-specific

conditions that either enable or constrain impulsive action. Together, these categories influence IBB both directly and indirectly through IBT, which captures the consumer's underlying propensity to act on impulse. The mediating role of IBT strengthens the model's explanatory power by bridging the relationship between stimuli and behavior, thus providing a more integrated and nuanced understanding of the antecedents of OIBB in digital settings.

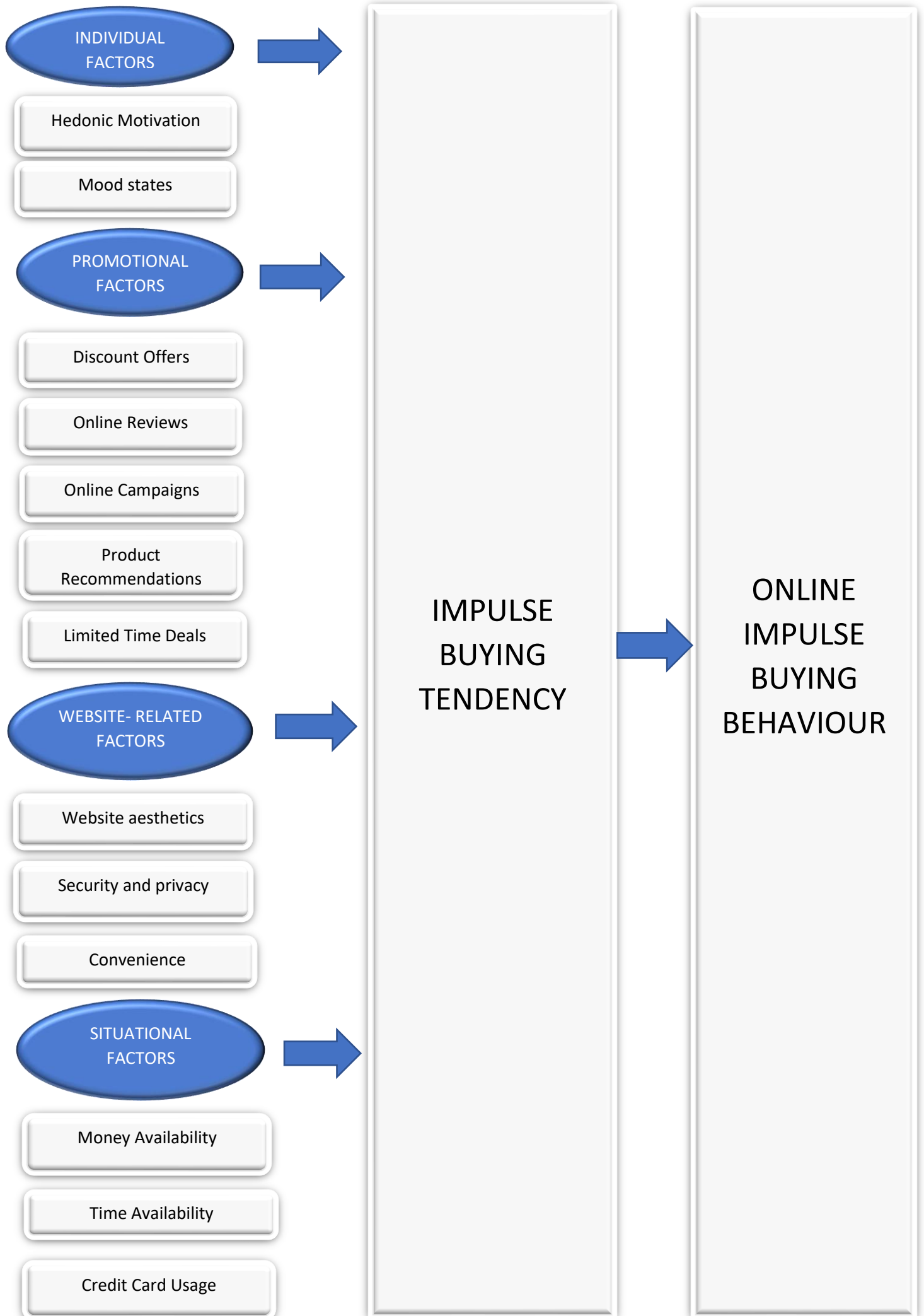


Figure 2.1 Conceptual Framework

2.10 Summary of the Chapter

Chapter Two presents an in-depth examination of the theoretical frameworks underpinning the present study, including the Stimulus-Organism-Response (S-O-R) framework, the Consumption Impulse Formation and Enactment (CIFE) model, Self-Determination Theory, and the Competitive Arousal Model. These theoretical perspectives provide a robust foundation for understanding the proposed relationships among the study variables. Through a comprehensive review of the existing literature, this chapter synthesizes empirical evidence from prior research in the domain of impulse buying behaviour. The chapter focuses on analyzing the influence of individual, promotional, website-related, and situational factors on online impulse buying behaviour. By integrating insights derived from theoretical constructs and empirical studies, this chapter develops several research hypotheses and identifies key gaps in the existing knowledge base. Finally, the chapter concludes with the development of a conceptual framework, which serves as a guiding structure for the subsequent empirical investigation.

Chapter 3

Research Methodology

Research methodology serves as the backbone of any scholarly investigation, providing a systematic and theoretical framework for conducting research in a structured and coherent manner. It involves the analysis and application of principles, techniques, and tools necessary to design and implement a study effectively. At its core, research methodology begins with philosophical underpinnings such as ontology (the nature of reality) and epistemology (the nature of knowledge), which influence the choice of methodological approach be it quantitative, qualitative, or mixed methods. These foundations guide researchers in aligning their research questions with appropriate strategies and ensuring that the study addresses the objectives in a scientifically robust way. A comprehensive research methodology encompasses several critical components, including the selection of participants, sampling techniques, data collection methods, and analytical procedures. It outlines the rationale behind choosing specific methods and techniques, emphasizing their suitability for the research objectives and context. This systematic approach ensures logical consistency, transparency, and replicability, thereby enhancing the study's credibility and reliability. Research methodology also plays a pivotal role in addressing potential challenges and limitations, offering strategies to mitigate biases and ensure the validity of findings. It enables researchers to interpret data in a meaningful way, linking theoretical concepts to practical applications. By providing a structured pathway, it facilitates the exploration of complex questions, fosters innovative thinking, and contributes to the advancement of knowledge in the field.

In essence, research methodology is more than a set of tools or procedures; it is a comprehensive framework that integrates theory, practice, and critical thinking to produce actionable and impactful insights. Whether aimed at solving practical problems or advancing theoretical understanding, a well-designed research methodology is indispensable for achieving rigorous, objective, and credible results.

3.1 Research Design

Research design refers to the structured framework or blueprint that guides the entire research process. It outlines the methods and procedures necessary to collect, analyze, and interpret data to address the research objectives and answer the research questions effectively. By providing

a systematic approach, research design ensures that the study is conducted in a logical, coherent, and scientifically sound manner. Key aspects of research design include the type of research being conducted (exploratory, descriptive, explanatory, or experimental), the sources of data (primary or secondary), the data collection methods (surveys, interviews, experiments, observations), the sampling techniques (probabilistic or non-probabilistic), and the strategies for data analysis. It defines the relationship between variables, whether through qualitative, quantitative, or mixed-methods approaches, ensuring alignment with the research goals. A well-constructed research design is crucial for maintaining the validity, reliability, and generalizability of the study's findings. It anticipates potential challenges, such as biases or constraints, and incorporates measures to address them, enhancing the study's overall robustness.

This study adopts a quantitative research approach, well-suited for examining relationships among multiple constructs using statistical analysis. The quantitative method facilitates the collection and analysis of numerical data, enabling the application of robust statistical tests to validate hypotheses and derive generalizable insights. This methodology is especially suitable for the present study, as it aims to examine the impact of various factors on online impulse buying behavior. Descriptive statistics, including the computation of means and standard deviations for all constructs, are employed to summarize the sample and key observations. Consequently, the study is both descriptive and empirical in nature.

A cross-sectional survey design forms the basis of this research, involving data collection at a single point in time from a substantial sample. This design offers efficiency and provides a snapshot of prevailing attitudes and behaviors. It is particularly advantageous for capturing diverse data and facilitating the generalization of findings to a broader population. Additionally, the survey methodology facilitates the concurrent collection of data across various constructs, thereby enabling a thorough analysis and the formulation of well-supported conclusions. The research unfolds in several stages, as illustrated in Figure 3.1, which outlines the overall research design and its sequential steps.

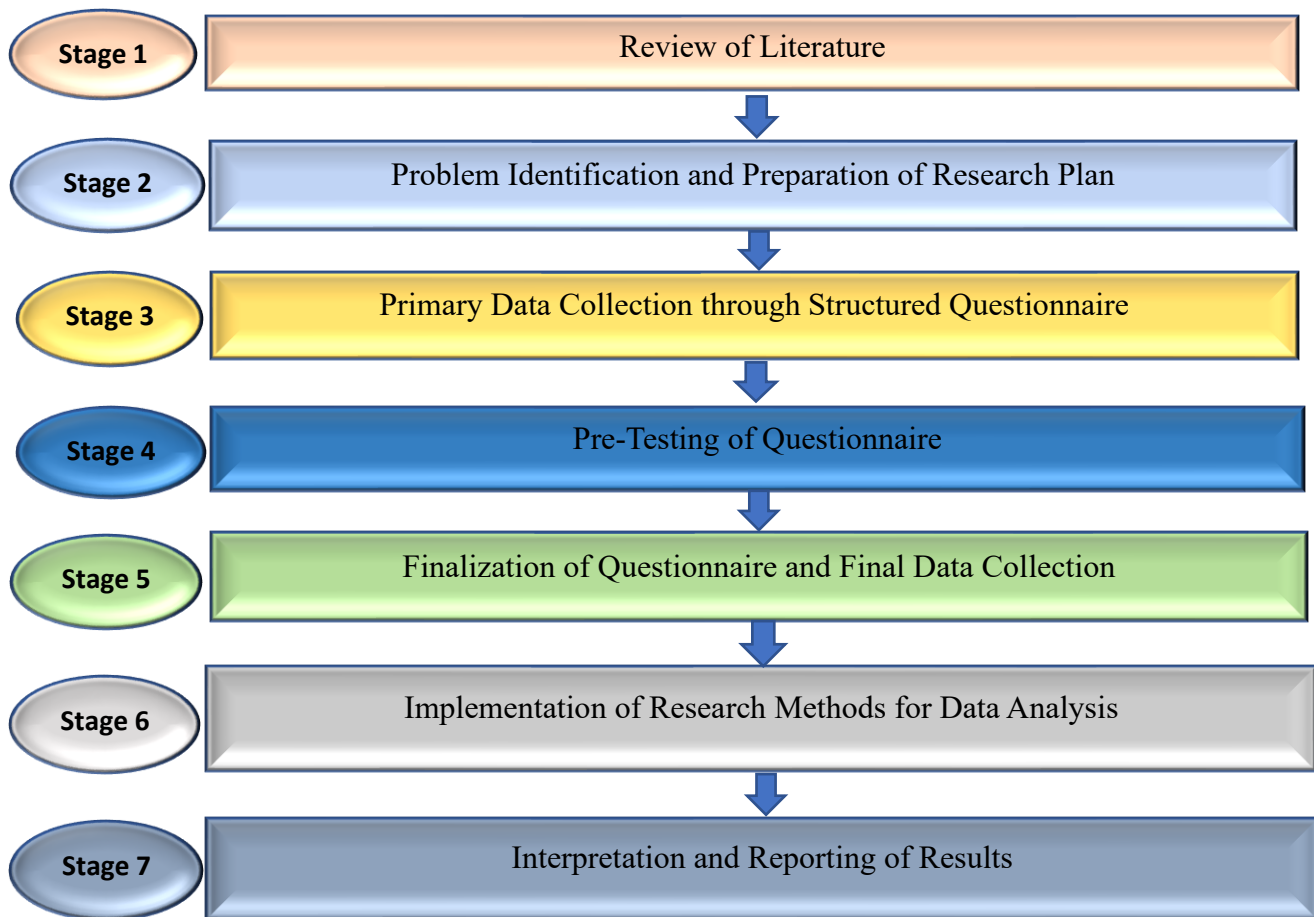


Figure 3.1 Outline of the research design of the study

3.2 Pretest

To ensure the reliability and validity of the research instrument, a pretest was undertaken prior to its full-scale deployment. The primary objective of the pretest was to assess the clarity, comprehensibility, and relevance of the questionnaire items in alignment with the study's objectives, while verifying that the stimuli effectively captured the constructs under investigation to ensure methodological rigor and robustness. Conducted with a sample of 40 respondents representative of the target population, participants were selected using a proportionate stratified sampling technique consistent with the approach adopted for the main study, ensuring adequate representation across key demographic variables such as age, gender.

Respondents completed the questionnaire and provided detailed feedback on any items perceived as unclear, ambiguous, or difficult to interpret, while their responses were systematically analyzed to identify potential issues related to wording, structure, or conceptual clarity. The internal consistency of the scales measuring the constructs was evaluated using Cronbach's alpha, ensuring the instrument met established reliability standards. Feedback from participants indicated that all questionnaire items were clear, relevant, and easily

comprehensible, with no recommendations for modifications such as rephrasing, removal, or addition of questions. The reliability analysis demonstrated strong internal consistency across all constructs, with Cronbach's alpha values exceeding recommended thresholds for academic research. These findings provide robust evidence supporting the reliability and validity of the research instrument, confirming that the questionnaire is well-designed to measure constructs central to the study, including individual, promotional, website-related, and situational factors influencing online impulse buying behavior, as well as the mediating role of impulse buying tendency. Consequently, the finalized instrument is deemed suitable for implementation in the main study's data collection phase.

3.3 Procedure

The data collection procedure was meticulously planned to ensure a systematic, accurate, and unbiased approach to gathering participant responses. The process began with the development of a comprehensive questionnaire designed to address the study's key variables. This initial version of the questionnaire was subjected to a rigorous pre-testing phase, during which its reliability and validity were assessed through expert reviews and a small pilot sample. The finalized instrument was hosted on Google Forms, leveraging its efficiency and accessibility, and distributed through a combination of online and offline channels to maximize reach and inclusivity.

The study specifically targeted individuals who actively shop online, as these individuals aligned closely with the research objectives. To minimize potential response bias and ensure authentic participant behavior, a concise but neutral introduction to the study was provided. This introduction outlined the general context and significance of the research without revealing its specific objectives, as such disclosures could have influenced participants' natural engagement and behavior.

To ensure completeness of data, all questions in the questionnaire were set as mandatory fields, reducing the likelihood of missing responses. No monetary or material incentives were provided, as the study aimed to encourage genuine participation without external influences. Participants were assured of their anonymity and the confidentiality of their responses, fostering trust and encouraging honest engagement.

Once data collection was completed, participants were thanked for their time and effort. A debriefing session followed, during which the study's objectives were fully disclosed. Participants were also informed about the ethical rationale for initially withholding this

information, emphasizing the importance of maintaining unbiased and authentic responses. This transparent and ethical approach reinforced the credibility of the research while ensuring the participants felt valued and informed about their role in the study.

Data collection for the study was conducted over an extensive period from December 2022 to August 2023 to ensure an adequate and representative sample size. Prior to initiating the data collection process, ethical approval was obtained from the institution's ethical committee, along with an official authority letter to endorse the study. The survey was primarily distributed electronically through digital platforms, with Google Forms serving as the primary medium for data collection. This platform facilitated automatic recording and storage of responses, ensuring efficiency and minimizing manual errors. Additionally, data gathered through offline channels was meticulously integrated into the primary dataset to create a comprehensive and unified dataset for analysis. This dual-mode approach ensured inclusivity and enhanced the robustness of the research findings.

3.4 Research Instrument

A well-structured questionnaire was carefully designed to examine the hypothesized relationships in the study. The questionnaire incorporated a combination of established scales and newly developed items, informed by extensive literature, to measure the constructs accurately. Existing items from prior studies were adapted to align with the specific context of this research, ensuring clarity and relevance while maintaining their original intent.

To standardize responses and simplify analysis, all questions were closed-ended, employing a five-point Likert scale for all constructs (Kimiagari and Keivanpour, 2015). The five-point Likert scale, a widely utilized tool in social science research, was employed in this study due to its practicality and effectiveness. It offers respondents a clear and straightforward framework to express their opinions, ranging from "strongly disagree" to "strongly agree" (Tanujaya and Prahmana, (2022)). This meticulous design process reflects the study's commitment to collecting precise and reliable data, facilitating the accurate testing of complex relationships between constructs. By ensuring that the questionnaire was both contextually relevant and user-friendly, the study significantly enhances the understanding of different factors influencing the impulsive buying behavior of the consumers.

To enhance clarity regarding the research focus, concise definitions of all constructs included in the study were provided prior to the corresponding measurement items. The questionnaire was structured into two primary sections. The first section collected demographic information

from respondents. Additionally, this section incorporated a screening question designed to assess participants' online shopping activity over the past year. Specifically, respondents were asked how many times they had engaged in online shopping within the previous twelve months. Only those who reported shopping online six or more times were permitted to proceed to the second section of the questionnaire. This approach ensured the relevance and accuracy of the data collected for subsequent analysis. Section 2, on the other hand, encompassed questions pertaining to the study variables and was further divided into multiple subsections, each addressing specific variables. Subsection A addressed individual factors, Subsection B examined promotional factors, Subsections C and D explored website-related factors and situational factors, respectively, Subsection E focused on the mediating variable, impulse buying tendency (IBT), and Subsection F investigated online impulse buying behavior.

Prior to administering the survey, the questionnaire underwent a comprehensive evaluation by a panel of subject-matter experts with proficiency in English. These experts critically examined the questionnaire to assess the relevance and representativeness of its items in capturing the study's constructs. Their feedback covered key aspects such as linguistic accuracy, clarity, and the overall comprehensibility of the items. Based on their recommendations, minor revisions were implemented to enhance the precision and readability of the instrument. By integrating expert insights, the questionnaire was systematically refined to effectively measure the constructs under investigation, thereby strengthening the rigor of the research instrument. This iterative process highlights the critical role of expert validation in developing a reliable and valid tool for data collection. The finalized questionnaire, reflecting these enhancements, is included in the Appendix as a comprehensive and robust instrument designed to accurately capture the data required for the study.

3.5 Measurement Scale

Table 3.1 presents a detailed summary of the measurement scales employed in this study. Demographic information such as respondents' age, gender, occupation, geographic region, and annual income was systematically gathered. Additionally, participants were asked about their online shopping frequency over the past year. Respondents who reported shopping online six or more times were eligible to proceed to Section 2 of the questionnaire.

In Section 2, various constructs were assessed using established and self-constructed scales based on prior literature. Hedonic motivation was measured using a seven-item scale adapted from Aragoncillo and Orús (2018), Dey and Srivastava (2017), and Tran et al. (2023). Mood

states were evaluated through a five-item scale derived and partially constructed based on studies by Aragoncillo and Orús (2018) and Parsad et al. (2021). Discount offers were assessed using a six-item scale adapted and self-constructed from Aragoncillo and Orús (2018) and Zhang et al. (2021). Online reviews were measured using a six-item self-constructed scale informed by Zhang et al. (2018).

Online campaigns were evaluated with a seven-item scale constructed based on Chen and Li (2020), Alfina and Mardhiyah (2023), Xie et al. (2023), Akram et al. (2018), and Yu et al. (2018). Product recommendations were measured using a seven-item scale that included items adapted from Chen et al. (2019) and self-constructed following Schafer et al. (2001). Limited-time deals were assessed using a six-item self-constructed scale drawing from studies by Aggarwal et al. (2011), Broeder and Wentink (2022), Babakus et al. (1988), Dawson and Kim (2010), Guo et al. (2017), and Lamis et al. (2022).

Website aesthetics were evaluated through a six-item self-constructed scale inspired by Wu et al. (2016), Sarah et al. (2021), and Cai and Xu (2014). Security and privacy were assessed using a seven-item scale adapted and modified from Fortes and Rita (2016). Convenience was measured using a six-item scale self-constructed based on Zhang et al. (2021), Liu et al. (2013), and Wells et al. (2011). Money availability was assessed through a five-item self-constructed scale drawing from Badgaiyan and Verma (2015), while time availability was measured with a four-item scale adapted from Aragoncillo and Orús (2018) and self-constructed based on Badgaiyan and Verma (2015).

Credit card usage was evaluated using a six-item scale adapted from studies by Aragoncillo and Orús (2018) and Norum (2008). Impulse buying tendency was measured using a six-item scale adapted from Febrilia and Warokka (2021), while online impulse buying behavior was assessed using a five-item scale adapted from Shahpasandi et al. (2020), Febrilia and Warokka (2021), and Kimiagari and Malafe (2021). These carefully developed scales ensured the reliability and validity of the constructs, facilitating robust and meaningful analysis.

Table 3.1 Measurement scale of all the constructs used in the study		
Construct	Description of the scale	Source
<i>Individual Factors</i>		
Hedonic Motivation	The items were evaluated using a five-point Likert scale, with response	Adapted from Aragoncillo and Orus (2018); Dey and Srivastava (2017) and Tran et al., (2023).

	options ranging from 1, indicating "strongly disagree," to 5, indicating "strongly agree."	
Mood states	Statements were assessed on a five-point scale where 1 denoted "strongly disagree" and 5 denoted "strongly agree."	Adapted and Self – constructed using study by Aragoncillo and Orus (2018) and Parsad et al. (2021).
<i>Promotional Factors</i>		
Discount Offers	Items were rated on a five point scale where 1 denoted "strongly disagree" and 5 denoted "strongly agree"	Adapted and self – constructed using Aragoncillo and Orus (2018), amd Zhang et al., (2021).
Online Reviews	The statements were evaluated using a five point scale, with 1 representing "strongly disagree" and 5 representing "strongly agree."	Self- constructed using Zhang et al. (2018).
Online Campaigns	A five-point Likert scale was employed, with 1 signifying "strongly disagree" and 5 signifying "strongly agree."	Self -constructed using (Chen & Li, 2020); (Alfina & Mardhiyah, 2023); (Xie et al., 2023); (Akram et al., 2018) and (Yu et al., 2018).
Product Recommendations	The statements were evaluated using a five-point scale, with 1 representing "strongly disagree" and 5	Items were adapted using Chen et al. (2019) and self -constructed using study by (Schafer et al., 2001).

	representing "strongly agree."	
Limited Time Deals	A scale of 1 to 5 was used for responses, with 1 representing "strongly disagree" and 5 representing "strongly agree."	Self- constructed using studies conducted by Aggrawal et al. (2011); Broeder and Wentink (2022); (Babakus et al., 1988); (Dawson & Kim, 2010); (Guo et al., 2017) and (Lamis et al., 2022).
<i>Website-related Factors</i>		
Website Aesthetics	Each statement was rated using a five-point scale, where 1 denoted "strongly disagree" and 5 denoted "strongly agree."	Self- constructed using Wu et al. (2016); Sarah et al. (2020) and Cai and Xu (2014).
Security and Privacy	A scale of 1 to 5 was used for responses, with 1 representing "strongly disagree" and 5 representing "strongly agree."	Adapted and modified from the study by Fortes and Rita (2016).
Convenience	Responses were captured on a five-point Likert scale, where 1 signified "strongly disagree" and 5 signified "strongly agree."	Self- constructed using Zhang et al. (2021); Liu et al. (2013) and Wells et al. (2011).
<i>Situational Factors</i>		
Money Availability	Participants rated the statements on a scale from 1 to 5, with 1 corresponding to "strongly disagree" and 5 to "strongly agree."	Self- constructed using Badgaiyan and Verma (2015).

Time Availability	Statements were assessed on a five-point scale where 1 denoted “strongly disagree” and 5 denoted “strongly agree.”	Adapted from Aragoncillo and Orus (2018); Self- constructed using Badgaiyan and Verma (2015).
Credit Card Usage	Each statement was rated using a five-point scale, where 1 denoted "strongly disagree" and 5 denoted "strongly agree."	Adapted from Aragoncillo and Orus (2018) and Norum (2008).
<i>Impulse Buying Tendency</i>	Participants rated the statements on a scale from 1 to 5, with 1 corresponding to "strongly disagree" and 5 to "strongly agree."	Adapted from Febrilia and Warokka (2021)
<i>Online Impulse Buying Behavior</i>	Responses were captured on a five-point Likert scale, where 1 signified "strongly disagree" and 5 signified "strongly agree."	Adapted from studies conducted by Shahpasandi et al. (2020); Febrilia and Warokka (2021) and Kimiagari & Malafe (2021)

3.6 Tools and Techniques

Research methodologies can be categorized into two primary paradigms: qualitative and quantitative approaches. These methodologies differ fundamentally in their techniques for data collection and analysis, each offering unique strengths and limitations. The selection of a suitable approach is determined by the research objectives and the nature of the inquiry.

Qualitative research is characterized by its focus on generating insights that are not reliant on statistical methods. It employs diverse techniques such as participant observation, case studies, focus groups, and in-depth interviews to explore phenomena in depth. This approach enables a holistic understanding of complex perspectives and contextual nuances, yielding rich and detailed findings. However, the analysis of qualitative data often demands significant time and

effort. Moreover, one of its notable challenges is the potential for researcher bias, which can impact the credibility and dependability of the results.

In contrast, quantitative research involves the systematic collection and analysis of numerical data through statistical methods. Structured instruments, including surveys and polls with closed-ended questions, are commonly employed to facilitate data collection and simplify subsequent analysis. The findings of quantitative research are typically objective and can be generalized to larger populations, making it a preferred approach for studies seeking wide applicability and replicability.

This study adopted a quantitative research approach to address the research objectives. Cross-sectional data were analyzed using two specialized software tools: IBM's Statistical Package for the Social Sciences (SPSS) version 25.0 and SmartPLS version 4.1, developed by SmartPLS GmbH. SPSS was utilized to perform descriptive analyses, offering a comprehensive summary of the respondents' demographic characteristics. This preliminary analysis was crucial for understanding the dataset's fundamental attributes and confirming its appropriateness for advanced statistical evaluation. Following the initial analysis, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to examine the proposed hypotheses. This advanced analytical technique facilitated the evaluation of complex relationships among the study constructs, aligning with the research objectives.

Prior to initiating the analytical procedures, the dataset underwent rigorous evaluations to identify potential issues related to common method bias (CMB), multicollinearity, and normality. CMB arises when respondents provide answers to both independent and dependent variable items, potentially introducing systematic errors into the findings. To address this, Harman's single-factor test was conducted to detect the presence of CMB.

The assessment of multicollinearity, which occurs when two or more independent variables exhibit significant intercorrelations, was carried out using variance inflation factor (VIF) values. This step is critical, as multicollinearity can compromise the accuracy of regression analyses by obscuring the distinct effects of each independent variable.

Additionally, the dataset's normality was evaluated by analyzing skewness and kurtosis values. A normal distribution is indicated by symmetry around the mean, which is a fundamental assumption for many statistical methods. The examination of these parameters ensured that the data met the normality criteria, validating its suitability for further statistical testing and enhancing the reliability of the research outcomes.

3.6.1 Structure Equation Modeling (SEM)

Structural Equation Modeling (SEM) was employed as the principal analytical technique in this study to rigorously assess the hypothesized relationships among the constructs and validate the proposed conceptual framework. SEM is a comprehensive multivariate statistical method that integrates elements of both factor analysis and path analysis, enabling simultaneous estimation of measurement and structural models. This dual functionality is particularly advantageous when investigating complex theoretical models involving latent variables and multiple observed indicators. The adoption of Partial Least Squares Structural Equation Modeling (PLS-SEM) is methodologically justified by the nature of the research objectives, which focus on theory development and the estimation of intricate interrelationships, including mediating effects and indirect paths. Unlike traditional regression-based approaches or purely conceptual analyses, PLS-SEM offers the capacity to model latent constructs with higher accuracy and robustness, particularly in studies characterized by non-normal data distributions and moderate sample sizes conditions frequently encountered in behavioral research. Moreover, PLS-SEM is well-suited for exploratory investigations (Kimiagari and Baei, 2022), aiming to extend existing theoretical frameworks, making it an appropriate choice for this study, which seeks to empirically estimate the influence of individual, promotional, website-related, and situational factors on online impulse buying behavior. The application of this advanced statistical technique enhances the empirical rigor of the study and contributes to its theoretical and practical significance by ensuring the robustness, validity, and generalizability of the findings.

In this study, Partial Least Squares SEM (PLS-SEM) was utilized due to its predictive accuracy and its ability to handle non-normal data and small to medium sample sizes, making it a practical choice given the nature of the dataset and research objectives. The analysis was conducted using SmartPLS version 4.1, a specialized software that offers advanced tools for model assessment and hypothesis testing. The methodology involved two distinct stages:

Assessment of the Measurement Model: The assessment of the measurement model is a crucial step in Structural Equation Modeling (SEM) to ensure the constructs' reliability and validity (Hair et al., 2017). Internal consistency reliability was evaluated using Cronbach's alpha and composite reliability (CR). Cronbach's alpha assessed the correlation among items within a construct, with values above 0.70 indicating acceptable reliability. Composite reliability provided a refined measure by incorporating factor loadings, with values above 0.70

confirming consistency in representing constructs. Convergent validity was established through Average Variance Extracted (AVE), where values exceeding 0.50 (Zhang et al., 2018) demonstrated that constructs captured more variance from their indicators than measurement error. Discriminant validity, confirming the uniqueness of constructs, was evaluated using the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio. The Fornell-Larcker criterion ensured that the square root of AVE for each construct was greater than its correlations with other constructs, while the HTMT ratio verified distinctiveness. These rigorous assessments validated the reliability and distinctiveness of the constructs, providing a robust foundation for subsequent structural analysis and ensuring the credibility and precision of the research findings.

Evaluation of the Structural Model: After validating the measurement model, the structural model was analyzed to evaluate the hypothesized relationships among the constructs. This involved estimating path coefficients, which quantified the strength and direction of the relationships, providing insights into the direct effects of independent variables on dependent variables. The statistical significance of these coefficients was determined using bootstrapping procedures, a robust resampling technique that generates confidence intervals and p-values to confirm the reliability of the results. The explanatory power of the model was assessed through R^2 values, which indicated the proportion of variance in the dependent variable explained by the independent variables (Falk and Miller, 1992). Higher R^2 values demonstrated greater predictive accuracy of the model. Additionally, predictive relevance (Q^2) was examined using blindfolding procedures to evaluate the model's ability to predict data points for endogenous constructs. Positive Q^2 values confirmed the model's robustness and practical applicability (Stone, 1974). This comprehensive analysis of the structural model ensured a thorough understanding of the causal pathways, reinforcing the study's theoretical framework and providing empirical evidence to support the research hypotheses.

3.7 Summary of the Chapter

Chapter Three presents a comprehensive discussion of the methodological framework adopted in this study. It systematically delineates the research design, emphasizing the structured approach employed to address the research questions. The significance of pretesting procedures is underscored to ensure that the selected stimuli remain free from bias, thereby safeguarding the validity of the findings. A detailed description of the data collection process and analytical techniques is provided, enhancing the study's transparency and reproducibility. Furthermore,

the chapter elaborates on the statistical tools and techniques utilized for data analysis, with a particular focus on Structural Equation Modeling (SEM) for hypothesis testing. The justification for employing SPSS for descriptive statistics and SmartPLS for advanced statistical modeling is also presented, highlighting the study's methodological rigor. Overall, this chapter establishes a robust methodological foundation, ensuring that the analytical processes are well-structured and aligned with the research objectives, thereby strengthening the credibility of the study's findings.

Chapter 4

Statistical Results

The preceding chapter provided a comprehensive account of the response collection process. This chapter shifts focus to the analysis and interpretation of the collected data. Both descriptive and inferential statistical methods are utilized in this analysis to ensure a comprehensive understanding of the data. Descriptive statistics summarize the data through measures such as means, standard deviations, and graphical representations, offering insights into the distribution and central tendencies of the sample (Binu et al., 2014). These techniques serve as a foundational step, enabling researchers to characterize the sample and identify initial patterns or trends. In contrast, inferential statistics extend beyond mere description by testing hypotheses and examining the statistical significance of relationships or differences between variables (Cooksey, 2020). By using inferential methods, researchers can draw conclusions about the broader population from which the sample is drawn, ensuring that findings are generalizable. Together, these methods provide a robust analytical framework, where descriptive statistics help visualize and summarize the data, while inferential statistics facilitate hypothesis testing and deeper insights into the relationships and effects being studied.

Additionally, this chapter provides a comprehensive overview of the results obtained through the PLS-SEM analysis, following established protocols in the field. The analysis begins with the evaluation of the measurement model to confirm the reliability and accuracy of the data, as well as to establish the validity of the structural model. This assessment involves testing the reflective constructs for convergent validity, discriminant validity, and internal consistency. To address concerns regarding potential common method bias, Harman's single-factor test was conducted. Subsequently, the structural model's significance was examined, alongside an assessment of its explanatory and predictive capabilities. The chapter concludes with a thorough discussion of the results, including the findings related to the research hypotheses, providing a detailed account of the analytical outcomes.

4.1 Demographic profile of the participants

This research focuses on individuals actively engaged in online shopping, particularly examining their impulse buying behavior. Since collecting data from the entire population is unfeasible, a representative subset, or sample, was selected to ensure efficient and reliable data

collection. The sampling process was designed to capture the diverse characteristics of the target population, thereby enhancing the study's validity and reliability. To achieve this, a probability-based approach, specifically stratified random sampling, was implemented. This method ensured equal opportunities for inclusion while accounting for key demographic differences such as age and gender. By reducing selection bias and improving generalizability, this approach reinforced the scientific integrity of the research design.

The target population for this study consisted of individuals who engage in online shopping at least six times annually. The research was conducted across four contiguous North Indian regions: Punjab, Haryana, Delhi NCR, and Chandigarh. Given the significance of selecting an appropriate sample size, the study addressed challenges associated with insufficient samples, which could compromise the precision and reliability of findings. An inadequate sample size may lead to Type I and Type II errors during hypothesis testing, underscoring the importance of determining an adequate sample size to enhance the robustness of the conclusions. For populations that are large or undefined, the Cochran formula was used to calculate an appropriate sample size. Demographic details of respondents is provided in Table 4.1.

$$n_0 = \frac{Z^2 pq}{e^2}$$

According to the formula, e represents the desired level of precision, indicating the acceptable margin of error in the estimate. The variable p denotes the estimated proportion of the population possessing the attribute of interest, while q is calculated as $1-p$, representing the proportion of the population without the attribute. The constant Z corresponds to the critical value derived from the standard normal distribution, associated with the chosen confidence level.

This formula yielded an estimated requirement of 385 participants, which was deemed suitable for this study. A proportionate stratified sampling approach was employed to ensure the sample accurately reflected the population distribution across the targeted regions. Regional stratification was based on the population proportions in Punjab, Haryana, Delhi NCR, and Chandigarh, with corresponding sample sizes allocated accordingly. Data collection resulted in responses from 415 participants, including 165 from Punjab, 140 from Haryana, 90 from

Delhi NCR, and 30 from Chandigarh. This distribution ensured the samples representativeness and the credibility of the research findings.

Table 4.1 Demographic details of respondents

Participants Frequency	Frequency	Percentage
Age		
Below 18	25	6.02
18- 30 years	275	66.26
31- 45 years	80	19.27
Above 45 years	35	8.43
Gender		
Male	177	45.65
Female	238	57.34
Educational Qualification		
Senior Secondary	27	6.50
Graduation	210	50.60
Post- graduation and above	178	42.89
Region		
Punjab	165	39.75
Haryana	140	33.73
Chandigarh	30	7.22
Delhi (NCR)	90	21.68
Annual Income of Household		
Less than ₹2 lakhs	65	15.66
₹2 lakhs – ₹5 lakhs	160	38.55
₹5 lakhs – ₹10 lakhs	190	45.73
How many times did you shop online within the last one year?		
Less than 6 times	-	-
6 times or more than that	415	100

4.2 Descriptive Statistics

Table 4.2 presents a comprehensive summary of the descriptive statistics for the variables under investigation, including the mean, standard deviation, skewness, and kurtosis. These metrics collectively describe the distributional properties of the data. The mean, as a measure of central tendency, represents the average value of the dataset, calculated by dividing the sum of all observations by the total number of data points. It offers valuable insights into the typical value or central point of the dataset. The standard deviation, a key indicator of variability, measures the extent to which individual observations deviate from the mean. A higher standard deviation suggests greater dispersion, while a lower standard deviation indicates that the data points are closely concentrated around the mean. Skewness measures the symmetry of the data distribution, with positive or negative values indicating whether the distribution is skewed to the right or left, respectively. A negative skew reflects a longer tail on the left side of the distribution, whereas a positive skew indicates a longer tail on the right. This measure is vital for identifying directional tendencies within the dataset. Kurtosis, on the other hand, examines the shape and heaviness of the distribution tails. High kurtosis values signal heavier tails and the potential presence of outliers data points that deviate significantly from the majority of the dataset whereas low kurtosis values suggest lighter tails and fewer outliers. The kurtosis coefficient is particularly useful for evaluating the influence of extreme values on the dataset. Outliers, which can significantly impact statistical outcomes, are often associated with distributions exhibiting high kurtosis. Long-tailed distributions indicate a greater likelihood of extreme values, while short-tailed distributions suggest fewer deviations from the central trend. Together, these descriptive statistics provide a robust framework for understanding the data's central tendency, variability, symmetry, and tail behavior, forming a foundation for precise interpretation and subsequent inferential analyses.

Table 4.2 Descriptive Analysis (N = 415)				
	Mean	Std. Deviation	Skewness	Kurtosis
Hedonic Motivation				
H.M_1	3.68	.910	-.786	.740
H.M_2	3.38	1.258	-.160	-1.074
H.M_3	4.00	.853	-.677	.424
H.M_4	3.89	1.047	-.889	.296
H.M_5	3.99	.954	-.864	.354
H.M_6	3.91	1.024	-.907	.322
Mood States				

M.S_1	3.91	.894	-.963	1.122
M.S_2	3.99	1.124	-.837	-.306
M.S_3	3.80	.996	-.454	-.524
M.S_4	4.08	.970	-.852	.076
M.S_5	3.63	1.141	-.488	-.682
Discount Offers				
DISC_1	4.05	.840	-1.094	1.773
DISC_2	4.16	1.007	-1.026	.252
DISC_3	4.12	1.045	-1.085	.368
DISC_4	4.04	1.107	-.978	.052
DISC_5	4.09	.919	-.966	.902
Online Reviews				
REV_1	4.00	.857	-.940	1.120
REV_2	4.07	1.022	-.818	-.180
REV_3	4.05	.951	-.837	.269
REV_4	3.87	1.031	-.592	-.310
REV_5	3.79	1.092	-.617	-.384
Online Campaigns				
O.C_1	3.55	1.001	-.420	-.578
O.C_2	3.95	.919	-.780	.501
O.C_3	3.66	1.152	-.460	-.728
O.C_4	3.59	1.029	-.378	-.451
O.C_5	3.78	1.049	-.834	.259
O.C_6	4.07	.937	-1.046	.904
Product Recommendations				
REC_1	3.82	.877	-.781	.568
REC_2	3.87	1.150	-.658	-.649
REC_3	4.05	.942	-.846	.417
REC_4	3.98	.953	-.710	-.016
REC_5	3.78	1.050	-.689	-.238
REC_6	4.31	.788	-1.301	2.331
Limited Time Deals				

LTD_1	3.72	.922	-1.176	1.419
LTD_2	3.96	1.100	-.963	.102
LTD_3	3.93	.975	-.876	.461
LTD_4	3.78	1.003	-.753	.195
LTD_5	3.88	.988	-.882	.489
LTD_6	3.82	.940	-.801	.579
Website Aesthetics				
AES_1	3.67	1.101	-.737	-.034
AES_2	4.09	1.120	-.963	-.146
AES_3	3.77	1.137	-.572	-.632
AES_4	3.89	1.066	-.866	.244
AES_5	3.73	1.176	-.498	-.857
Security and Privacy				
SEC_1	3.85	1.053	-1.084	.832
SEC_2	4.06	1.130	-.992	-.035
SEC_3	3.86	1.075	-.827	.029
SEC_4	3.78	1.044	-.691	.042
SEC_5	3.93	1.093	-.844	-.103
SEC_6	3.93	1.176	-.944	-.029
SEC_7	4.05	1.063	-1.119	.657
Convenience				
CONV_1	4.11	.870	-1.047	1.125
CONV_2	4.27	1.004	-1.189	.462
CONV_3	4.10	1.002	-.913	.205
CONV_4	4.01	1.025	-.826	-.062
CONV_5	4.08	.995	-.909	.136
CONV_6	4.28	.938	-1.247	.903
Money Availability				
M.A_1	4.10	.764	-.989	2.014
M.A_2	4.00	.979	-.548	-.647

M.A_3	4.02	.902	-.638	-.027
M.A_4	3.27	1.299	.003	-1.270
M.A_5	3.37	1.334	-.282	-1.064
Time Availability				
TIME_1	3.79	1.011	-.917	.511
TIME_2	4.01	.963	-.639	-.398
TIME_3	3.90	.972	-.547	-.344
TIME_4	3.66	1.099	-.427	-.705
Credit Card Usage				
CCU_1	3.45	1.073	-.997	.020
CCU_2	3.41	1.226	-.315	-.977
CCU_3	3.51	1.107	-.591	-.328
CCU_4	3.42	1.195	-.359	-.922
CCU_5	3.45	1.117	-.658	-.393
CCU_6	3.01	1.289	-.041	-1.175
Impulse Buying Tendency				
IBT_1	3.75	.833	-1.558	2.970
IBT_2	3.55	1.230	-.313	-1.112
IBT_3	3.71	.964	-.780	.460
IBT_4	3.73	.962	-.840	.504
IBT_5	3.45	1.137	-.548	-.583
IBT_6	3.90	.909	-.808	.718
Online Impulse Buying Behavior				
IBB_1	3.83	.903	-1.174	1.600
IBB_2	3.86	.996	-.670	-.127
IBB_3	3.52	1.037	-.485	-.314
IBB_4	3.78	.949	-.894	.660
IBB_5	3.87	1.004	-.976	.694
Source: Self-compiled using SPSS				

4.3 Common Method Bias

Common Method Bias (CMB) arises when respondents provide answers to questions related to both independent and dependent variables within the same study, potentially compromising the integrity of the research findings. This bias can lead to inflated or distorted relationships between variables, undermining the validity of the results. To mitigate the risk of CMB, participants were assured of complete anonymity and encouraged to provide honest and accurate responses to all items in the questionnaire, as recommended by Podsakoff et al. (2003). Since the study relied on a self-reporting instrument for data collection, assessing and addressing CMB was imperative to ensure the reliability of the findings.

To detect the presence of CMB, Harman's single-factor test was employed. This method involves subjecting all questionnaire items to an exploratory factor analysis (EFA) to determine the proportion of variance explained by a single factor. In this study, the analysis revealed that a single factor accounted for 36.335% of the total variance, well below the commonly accepted threshold of 50%, which indicates the absence of significant CMB (Kaltsonoudi et al., 2021). The results confirmed that no single dominant factor influenced the data, validating the robustness of the dataset against CMB. This step was critical in maintaining the credibility of the research conclusions by ruling out potential biases introduced by the measurement method.

4.4 Data Diagnosis

Prior to commencing the analysis, a thorough examination of the data was conducted to assess both multicollinearity and normality. Multicollinearity, if present, can severely undermine the validity of the study by causing undue interference between independent variables, thus complicating the interpretation of their individual effects on the dependent variable. To identify multicollinearity, the variance inflation factor (VIF) was calculated, as it serves as a key indicator of the extent to which multicollinearity might be problematic. VIF values exceeding 10 are generally considered indicative of significant multicollinearity (Lavery et al., 2019; Paul, 2006). In cases where such high VIF values are found, it is recommended to remove the offending variables and recalculate the VIF to ensure the integrity of the model.

The normality of the data was assessed using skewness and kurtosis, which provide insights into the distribution's symmetry and tail characteristics, respectively. For a perfectly normal distribution, skewness and kurtosis values are expected to be close to zero, with acceptable thresholds being ± 1 for skewness and ± 2 for kurtosis. In this dataset, most variables exhibited skewness values within the acceptable range, indicating approximate symmetry. Regarding kurtosis, many variables had kurtosis values within ± 2 , suggesting distributions without

extreme outliers. However, some variables exhibited elevated kurtosis values, indicative of heavy-tailed distributions. While the majority of the dataset adhered to normality assumptions, deviations observed in certain variables warrant consideration. For variables that deviate from normality, robust statistical techniques such as PLS-SEM, which are not constrained by stringent normality assumptions, are employed to ensure the reliability and validity of subsequent analyses (Hair et al., 2011). In this study all the VIF values are within the acceptable range as shown in Table 4.3.

Table 4.3 Variance Inflation Factor	
Construct	VIF
<i>Outer Model</i>	
H.M_1	1.815
H.M_2	1.651
H.M_3	1.536
H.M_4	1.438
H.M_5	1.455
H.M_6	1.781
M.S_1	1.562
M.S_2	1.513
M.S_3	1.474
M.S_4	1.2
M.S_5	1.689
DISC_1	1.492
DISC_2	1.305
DISC_3	1.31
DISC_4	1.327
DISC_5	1.45
REV_1	1.412
REV_2	1.352
REV_3	1.314
REV_4	1.511
REV_5	1.56
O.C_1	1.547

O.C_2	1.447
O.C_3	1.574
O.C_4	1.435
O.C_5	1.491
O.C_6	1.57
REC_1	1.599
REC_2	1.451
REC_3	1.479
REC_4	1.408
REC_5	1.831
REC_6	1.363
LTD_1	1.699
LTD_2	1.722
LTD_3	1.408
LTD_4	1.563
LTD_5	1.375
LTD_6	1.714
AES_1	1.455
AES_2	1.413
AES_3	1.502
AES_4	1.511
AES_5	1.476
SEC_1	1.493
SEC_2	1.469
SEC_3	1.579
SEC_4	1.462
SEC_5	1.502
SEC_6	1.479
SEC_7	1.541
CONV_1	1.744
CONV_2	1.355
CONV_3	1.393

CONV_4	1.464
CONV_5	1.345
CONV_6	1.424
M.A_1	1.229
M.A_2	1.191
M.A_3	1.213
M.A_4	1.912
M.A_5	1.885
TIME_1	1.501
TIME_2	1.269
TIME_3	1.206
TIME_4	1.308
CCU_1	1.863
CCU_2	1.881
CCU_3	1.962
CCU_4	1.332
CCU_5	1.743
CCU_6	2.116
IBT_1	1.716
IBT_2	1.879
IBT_3	1.484
IBT_4	1.667
IBT_5	1.922
IBT_6	1.987
IBB_1	1.969
IBB_2	1.725
IBB_3	1.712
IBB_4	1.85
IBB_5	1.975
<i>Inner Model</i>	
H.M -> IBB	2.641
H.M -> IBT	2.615

M.S -> IBB	3.769
M.S -> IBT	3.766
DISC -> IBB	2.586
DISC -> IBT	2.531
REV -> IBB	3.508
REV -> IBT	3.41
O.C -> IBB	4.037
O.C -> IBT	3.835
REC -> IBB	3.929
REC -> IBT	3.879
LTD -> IBB	4.209
LTD -> IBT	4.176
AES -> IBB	3.039
AES -> IBT	2.884
SEC -> IBB	2.989
SEC -> IBT	2.906
CONV -> IBB	2.361
CONV -> IBT	2.295
M.A -> IBB	2.342
M.A -> IBT	2.339
TIME -> IBB	2.772
TIME -> IBT	2.754
CCU -> IBB	2.193
CCU -> IBT	2.19
IBT -> IBB	4.518

4.5 Measurement Model Assessment

Ensuring the reliability and validity of a research instrument is paramount, particularly in studies that rely on questionnaires. Reliability refers to the consistency of a measurement scale in producing stable and dependable results over repeated applications (Kimberlin and Winterstein, 2008). In this study, the reliability of the measurement scales was assessed by calculating Cronbach's alpha and composite reliability (CR) values for each construct. These

metrics serve as indicators of internal consistency, reflecting the degree to which items within a construct are correlated (Cheung et al., 2023). The results demonstrated acceptable reliability, with Cronbach's alpha and CR values falling within the range of 0.60 to 0.70, which is deemed suitable for exploratory research contexts (Hair et al., 2011) as depicted in Table 4.4.

Validity, in contrast, focuses on the extent to which a measurement scale accurately captures the intended construct (Flynn and Schroeder, 1994). Different forms of validity are commonly examined, including face, content, and construct validity (Lim, 2024). As discussed in Chapter 3, both face and content validity were rigorously evaluated. Face validity involves a subjective judgment regarding whether the instrument appears to measure the targeted construct (Hardesty and Bearden, 2004). On the other hand, content validity assesses whether the scale adequately represents the full domain of the construct (Hair et al., 2019).

To ensure both face and content validity, the questionnaire underwent a systematic review process. Initially, subject-matter experts proficient in English reviewed the instrument to evaluate the relevance and representativeness of the items in relation to the constructs being measured. Their feedback prompted several refinements to improve precision. Following these modifications, the revised questionnaire was pilot-tested with a sample of 40 participants drawn from the target population. These participants provided feedback on the clarity, language, and comprehensibility of the items. The responses were overwhelmingly positive, and no further adjustments were required to rephrase, add, or remove any items. This comprehensive process of expert review and pilot testing was instrumental in establishing the questionnaire's validity, ensuring it accurately captured the constructs of interest while remaining comprehensible to the target audience. Additionally, construct validity was evaluated to confirm whether the measurement scales aligned with theoretical expectations (Deford, 1985). Confirmatory factor analysis (CFA), a widely recognized statistical method, was employed for this purpose (Kline, 2013).

In addition to CR, the reliability of individual indicators is assessed by examining their standardized factor loadings, as shown in Table 4.5. A loading value above 0.70 is generally recommended, as it suggests that the indicator strongly correlates with the underlying construct. However, in exploratory studies, indicators with loadings between 0.40 and 0.70 may be retained if their exclusion does not significantly enhance the composite reliability of the construct. This flexibility allows researchers to maintain theoretical and practical relevance while optimizing measurement reliability. In the present study, the standardized loadings for

the indicators range from 0.674 to 0.871, indicating that they are within the acceptable limits for reflective measurement models. However certain items were excluded from each construct to enhance the measurement model (H.M_1 and 2; M.S_4 and 5; DISC_4; REV_2; O.C_1; REC_3,4 and 6; LTD_4; AES_1; SEC_2 and 7; CONV_1 and 3; M.A_2; TIME_3 and 5; CCU_1 and 3; IBT_3,5 and 6; IBB_ 3).

Another critical aspect of assessing reflective measurement models is evaluating convergent validity, which ensures that the indicators of a construct converge or share a high proportion of variance. Convergent validity is determined by examining the average variance extracted (AVE), which represents the average amount of variance explained by the indicators relative to the variance due to measurement error. An AVE value exceeding 0.50 indicates that the construct explains more than half of the variance in its indicators, thus establishing convergent validity (Hair et al., 2012). In this study, the AVE values for all constructs surpass the recommended threshold, as demonstrated in Table 1, confirming that the constructs adequately capture the underlying theoretical dimensions.

Table 4.4 Measurement Model Assessment				
Constructs	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Individual Factors				
a. Hedonic Motivation	0.751	0.768	0.842	0.572
b. Mood states	0.699	0.700	0.832	0.624
Promotional Factors				
a. Discount	0.711	0.718	0.820	0.532
b. Online Reviews	0.724	0.725	0.829	0.548
c. Online Campaigns	0.778	0.783	0.849	0.530
d. Product Recommendations	0.726	0.730	0.846	0.646
e. Limited time deals	0.794	0.798	0.859	0.550
Website Factors				
a. Website aesthetics	0.737	0.739	0.835	0.559
b. Security and Privacy	0.767	0.768	0.843	0.518
c. Convenience	0.687	0.704	0.808	0.515
Situational Factors				
a. Money availability	0.675	0.723	0.803	0.513

b. Time availability	0.669	0.693	0.817	0.600
c. Credit card usage	0.783	0.817	0.860	0.608

Table 4.5 Factor Loadings

Construct	Items	Outer Loadings
Hedonic Motivation	H.M_3	0.687
	H.M_4	0.754
	H.M_5	0.748
	H.M_6	0.829
Mood States	M.S_1	0.782
	M.S_2	0.784
	M.S_3	0.802
Discount Offers	DISC_1	0.712
	DISC_2	0.744
	DISC_3	0.752
	DISC_5	0.708
Online Reviews	REV_1	0.751
	REV_3	0.686
	REV_4	0.764
	REV_5	0.757
Online Campaigns	O.C_2	0.682
	O.C_3	0.749
	O.C_4	0.687
	O.C_5	0.742
	O.C_6	0.776
Product Recommendations	REC_1	0.771
	REC_2	0.791
	REC_5	0.848
Limited Time Deals	LTD_1	0.773
	LTD_2	0.774
	LTD_3	0.698

	LTD_5	0.684
	LTD_6	0.774
Website Aesthetics	AES_2	0.749
	AES_3	0.734
	AES_4	0.770
	AES_5	0.737
Security and Privacy	SEC_1	0.738
	SEC_3	0.744
	SEC_4	0.703
	SEC_5	0.708
	SEC_6	0.705
Convenience	CONV_2	0.767
	CONV_4	0.765
	CONV_5	0.612
	CONV_6	0.716
Money Availability	M.A_1	0.574
	M.A_3	0.586
	M.A_4	0.841
	M.A_5	0.818
Time Availability	TIME_1	0.843
	TIME_2	0.745
	TIME_4	0.729
Credit Card Usage	CCU_2	0.812
	CCU_4	0.636
	CCU_5	0.779
	CCU_6	0.871
Impulse Buying Tendency	IBT_1	0.796
	IBT_2	0.764
	IBT_4	0.792
	IBT_6	0.836
Online Impulse Buying Behavior	IBB_1	0.837
	IBB_2	0.789

	IBB_4	0.817
	IBB_5	0.828

Table 4.6 Fornell and Larcker Criterion

	AES	CCU	CONV	DISC	H.M	IBB	IBT	LTD	M.A	M.S	O.C	REC.	REV	SEC	TIME
AES	0.748														
CCU	0.522	0.780													
CONV	0.628	0.451	0.718												
DISC	0.623	0.492	0.572	0.729											
H.M	0.604	0.472	0.533	0.599	0.756										
IBB	0.756	0.586	0.655	0.677	0.629	0.818									
IBT	0.753	0.581	0.694	0.681	0.678	0.800	0.797								
LTD	0.702	0.568	0.657	0.650	0.676	0.778	0.781	0.742							
M.A	0.604	0.593	0.453	0.532	0.517	0.552	0.572	0.572	0.716						
M.S	0.615	0.500	0.558	0.616	0.622	0.666	0.687	0.728	0.564	0.790					
O.C	0.680	0.574	0.603	0.630	0.666	0.748	0.767	0.767	0.581	0.667	0.728				
REC.	0.659	0.585	0.608	0.621	0.618	0.732	0.743	0.757	0.605	0.691	0.726	0.804			
REV	0.609	0.531	0.569	0.618	0.613	0.662	0.717	0.687	0.629	0.645	0.689	0.687	0.740		
SEC	0.664	0.539	0.590	0.577	0.567	0.677	0.707	0.658	0.595	0.604	0.693	0.677	0.642	0.720	
TIME	0.621	0.599	0.578	0.565	0.560	0.643	0.667	0.637	0.615	0.612	0.645	0.617	0.608	0.615	0.774

Discriminant validity is a critical aspect of measurement model evaluation that ensures the constructs in the study are distinct and uncorrelated. This study assess discriminant validity using Henseler et al. (2015) Three widely adopted methods Fornell-Larcker Criterion (Table 4.6), Cross-Loadings, and Heterotrait-Monotrait Ratio (HTMT) were utilized to establish discriminant validity in this study. The Fornell-Larcker criterion, as proposed by Fornell and Larcker (1981), posits that the square root of the average variance extracted (AVE) of a construct must be higher than its correlations with all other constructs. This method compares the shared variance between constructs and the variance captured by a construct itself. In this study, the diagonal elements in the Fornell-Larcker matrix, representing the square root of AVE, were found to exceed the off-diagonal elements (construct correlations). This confirms that each construct shares more variance with its indicators than with other constructs, thereby establishing discriminant validity (Kimiagari and Baei, 2022).

The HTMT criterion, developed by Henseler et al. (2015), is a more robust and modern approach to evaluating discriminant validity. HTMT is calculated as the ratio of between-trait correlations to within-trait correlations and serves as an upper boundary for construct correlations. HTMT values significantly smaller than 1 indicate adequate discriminant validity.

Researchers commonly adopt a threshold of 0.85 (conservative) or 0.90 (liberal). In this study, the HTMT values were well below 1 for all construct pairs, ensuring discriminant validity as shown in Table 4.7.

Table 4.7 HTMT ratios

	AES	CCU	CON V	DISC	H.M	IBB	IBT	LTD	M.A	M.S	O.C	REC.	REV	SEC	TIME
AES															
CCU	0.675														
CONV	0.870	0.606													
DISC	0.842	0.632	0.794												
H.M	0.793	0.582	0.711	0.792											
IBB	0.961	0.708	0.848	0.860	0.776										
IBT	0.972	0.715	0.918	0.875	0.858	0.973									
LTD	0.915	0.705	0.879	0.851	0.863	0.954	0.974								
M.A	0.840	0.787	0.641	0.740	0.707	0.726	0.757	0.781							
M.S	0.855	0.660	0.791	0.855	0.837	0.869	0.913	0.973	0.803						
O.C	0.894	0.713	0.809	0.828	0.856	0.923	0.966	0.972	0.789	0.905					
REC.	0.900	0.760	0.844	0.843	0.819	0.938	0.970	0.995	0.844	0.967	0.963				
REV	0.834	0.695	0.803	0.854	0.827	0.852	0.937	0.908	0.891	0.906	0.917	0.948			
SEC	0.883	0.687	0.799	0.759	0.733	0.844	0.898	0.841	0.805	0.825	0.900	0.904	0.862		
TIME	0.877	0.825	0.834	0.790	0.763	0.845	0.894	0.861	0.896	0.880	0.880	0.871	0.869	0.861	

Cross-loadings are another traditional measure for assessing discriminant validity. According to this method, an indicator's loading on its designated construct should be higher than its cross-loadings on other constructs. In this study, the results indicated that all items loaded more strongly on their respective constructs compared to other constructs, confirming adequate discriminant validity as shown in Table 4.8.

Table 4.8 Cross Loadings

	AES	CCU	CONV	DISC	H.M	IBB	IBT	LTD	M.A	M.S	O.C	REC.	REV	SEC	TIME
AES 2	0.749	0.354	0.468	0.480	0.480	0.593	0.613	0.559	0.444	0.469	0.515	0.503	0.460	0.473	0.473
AES 3	0.734	0.398	0.451	0.447	0.425	0.576	0.545	0.533	0.434	0.476	0.529	0.495	0.475	0.508	0.467
AES 4	0.770	0.394	0.475	0.461	0.484	0.576	0.573	0.531	0.430	0.471	0.484	0.481	0.438	0.488	0.461
AES 5	0.737	0.421	0.484	0.476	0.413	0.510	0.513	0.470	0.504	0.418	0.505	0.491	0.450	0.521	0.455
CCU 2	0.437	0.812	0.371	0.399	0.412	0.480	0.458	0.483	0.414	0.425	0.454	0.464	0.416	0.380	0.441
CCU 4	0.278	0.636	0.269	0.253	0.206	0.297	0.305	0.299	0.376	0.255	0.259	0.329	0.305	0.337	0.404
CCU 5	0.379	0.779	0.312	0.398	0.347	0.459	0.458	0.423	0.487	0.404	0.485	0.430	0.410	0.422	0.458
CCU 6	0.498	0.871	0.431	0.450	0.457	0.547	0.549	0.527	0.555	0.444	0.538	0.565	0.497	0.520	0.555
CONV 2	0.487	0.362	0.767	0.453	0.469	0.567	0.567	0.529	0.312	0.437	0.487	0.505	0.444	0.464	0.461
CONV 4	0.532	0.321	0.765	0.467	0.446	0.504	0.553	0.518	0.395	0.476	0.511	0.499	0.435	0.510	0.464
CONV 5	0.352	0.300	0.612	0.317	0.270	0.351	0.399	0.366	0.290	0.299	0.364	0.317	0.379	0.334	0.335
CONV 6	0.407	0.309	0.716	0.382	0.305	0.424	0.446	0.451	0.301	0.364	0.345	0.391	0.370	0.359	0.383
DISC 1	0.392	0.298	0.343	0.712	0.363	0.409	0.409	0.428	0.358	0.403	0.396	0.378	0.433	0.334	0.323
DISC 2	0.518	0.413	0.475	0.744	0.460	0.532	0.576	0.530	0.452	0.505	0.516	0.528	0.484	0.494	0.487
DISC 3	0.506	0.384	0.437	0.752	0.498	0.575	0.560	0.519	0.386	0.487	0.513	0.493	0.469	0.483	0.464

DISC 5	0.367	0.317	0.393	0.708	0.404	0.425	0.398	0.391	0.342	0.375	0.380	0.377	0.407	0.330	0.333
H.M 3	0.330	0.273	0.295	0.344	0.687	0.339	0.393	0.405	0.342	0.332	0.418	0.339	0.410	0.335	0.328
H.M 4	0.493	0.355	0.421	0.481	0.754	0.504	0.551	0.531	0.391	0.468	0.520	0.504	0.477	0.453	0.391
H.M 5	0.442	0.302	0.420	0.431	0.748	0.441	0.502	0.469	0.365	0.462	0.438	0.419	0.447	0.392	0.422
H.M 6	0.528	0.467	0.453	0.528	0.829	0.577	0.576	0.609	0.453	0.580	0.611	0.567	0.512	0.508	0.525
IBB 1	0.629	0.447	0.588	0.574	0.536	0.837	0.691	0.694	0.443	0.606	0.616	0.609	0.553	0.582	0.519
IBB 2	0.607	0.481	0.512	0.551	0.512	0.789	0.653	0.602	0.423	0.515	0.592	0.569	0.521	0.549	0.524
IBB 4	0.619	0.537	0.524	0.531	0.503	0.817	0.630	0.632	0.478	0.550	0.648	0.624	0.538	0.555	0.534
IBB 5	0.619	0.454	0.517	0.560	0.505	0.828	0.640	0.615	0.463	0.503	0.590	0.594	0.552	0.527	0.527
IBT 1	0.586	0.469	0.584	0.594	0.557	0.650	0.796	0.619	0.433	0.543	0.573	0.558	0.572	0.509	0.547
IBT 2	0.582	0.530	0.563	0.520	0.543	0.592	0.764	0.600	0.540	0.579	0.626	0.648	0.581	0.607	0.577
IBT 4	0.582	0.408	0.488	0.503	0.540	0.647	0.792	0.633	0.415	0.529	0.627	0.591	0.561	0.584	0.499
IBT 6	0.651	0.447	0.575	0.554	0.523	0.658	0.836	0.638	0.437	0.542	0.620	0.576	0.572	0.556	0.507
LTD 1	0.508	0.421	0.495	0.461	0.488	0.593	0.602	0.773	0.410	0.539	0.565	0.568	0.507	0.444	0.428
LTD 2	0.541	0.432	0.516	0.479	0.513	0.615	0.642	0.774	0.383	0.594	0.593	0.590	0.513	0.519	0.471
LTD 3	0.506	0.406	0.435	0.459	0.479	0.558	0.525	0.698	0.432	0.526	0.536	0.550	0.496	0.428	0.485
LTD 5	0.495	0.380	0.480	0.492	0.504	0.521	0.536	0.684	0.440	0.479	0.551	0.513	0.501	0.490	0.450
LTD 6	0.551	0.463	0.510	0.523	0.525	0.594	0.585	0.774	0.466	0.553	0.597	0.583	0.533	0.556	0.534
M.A 1	0.322	0.244	0.199	0.291	0.289	0.315	0.300	0.317	0.574	0.288	0.302	0.289	0.365	0.264	0.331
M.A 3	0.343	0.353	0.245	0.254	0.298	0.330	0.314	0.397	0.586	0.323	0.339	0.342	0.381	0.344	0.310
M.A 4	0.557	0.518	0.430	0.486	0.481	0.500	0.524	0.506	0.841	0.513	0.527	0.559	0.547	0.538	0.551
M.A 5	0.462	0.527	0.371	0.443	0.377	0.406	0.453	0.402	0.818	0.448	0.453	0.487	0.481	0.502	0.516
M.S 1	0.499	0.333	0.421	0.437	0.447	0.503	0.498	0.527	0.429	0.782	0.507	0.490	0.457	0.467	0.470
M.S 2	0.489	0.374	0.421	0.504	0.534	0.526	0.579	0.610	0.464	0.784	0.529	0.575	0.544	0.484	0.463
M.S 3	0.469	0.474	0.478	0.514	0.489	0.546	0.547	0.582	0.442	0.802	0.543	0.566	0.524	0.479	0.515
O.C 2	0.406	0.392	0.365	0.443	0.472	0.479	0.542	0.517	0.380	0.481	0.682	0.516	0.470	0.484	0.419
O.C 3	0.536	0.513	0.487	0.476	0.501	0.563	0.590	0.585	0.457	0.486	0.749	0.550	0.546	0.518	0.523
O.C 4	0.469	0.378	0.408	0.410	0.423	0.471	0.494	0.481	0.466	0.467	0.687	0.468	0.467	0.521	0.414
O.C 5	0.500	0.410	0.438	0.485	0.503	0.561	0.569	0.581	0.407	0.493	0.742	0.574	0.480	0.520	0.491
O.C 6	0.553	0.394	0.488	0.476	0.518	0.631	0.589	0.614	0.413	0.503	0.776	0.531	0.541	0.486	0.492
REC. 1	0.512	0.434	0.466	0.466	0.491	0.534	0.552	0.564	0.508	0.543	0.544	0.771	0.549	0.502	0.447
REC. 2	0.567	0.482	0.494	0.521	0.483	0.608	0.625	0.613	0.480	0.551	0.583	0.791	0.538	0.569	0.515
REC. 5	0.509	0.493	0.505	0.508	0.517	0.619	0.612	0.644	0.475	0.572	0.620	0.848	0.572	0.557	0.522
REV 1	0.452	0.382	0.439	0.428	0.446	0.489	0.526	0.512	0.440	0.467	0.479	0.499	0.751	0.473	0.438
REV 3	0.430	0.368	0.364	0.447	0.430	0.484	0.488	0.489	0.417	0.482	0.504	0.465	0.686	0.437	0.437
REV 4	0.450	0.387	0.436	0.461	0.486	0.494	0.553	0.507	0.478	0.457	0.519	0.496	0.764	0.453	0.419
REV 5	0.471	0.434	0.442	0.492	0.453	0.492	0.551	0.525	0.523	0.506	0.538	0.572	0.757	0.537	0.506
SEC 1	0.512	0.389	0.462	0.409	0.435	0.498	0.551	0.500	0.389	0.426	0.519	0.503	0.440	0.738	0.450
SEC 3	0.490	0.396	0.406	0.412	0.386	0.512	0.499	0.485	0.476	0.443	0.499	0.484	0.501	0.744	0.429
SEC 4	0.488	0.437	0.447	0.433	0.427	0.487	0.510	0.485	0.443	0.426	0.491	0.525	0.464	0.703	0.488
SEC 5	0.449	0.362	0.395	0.430	0.406	0.472	0.501	0.456	0.405	0.442	0.496	0.481	0.439	0.708	0.397
SEC 6	0.447	0.354	0.410	0.393	0.384	0.464	0.480	0.438	0.432	0.436	0.486	0.440	0.469	0.705	0.451
TIME 1	0.552	0.496	0.509	0.510	0.526	0.584	0.620	0.591	0.507	0.559	0.589	0.558	0.523	0.502	0.843
TIME 2	0.427	0.442	0.438	0.363	0.392	0.494	0.464	0.457	0.405	0.441	0.451	0.439	0.449	0.454	0.745
TIME 4	0.453	0.454	0.384	0.430	0.359	0.390	0.442	0.409	0.526	0.400	0.441	0.420	0.434	0.479	0.729

4.6 Structural Model Assessment

The structural model assessment is a crucial step in Partial Least Squares Structural Equation Modeling (PLS-SEM) that evaluates the relationships between latent constructs. It goes beyond evaluating the measurement model by testing the hypothesized paths and overall model fit. The

R² values, measuring the model's explanatory power, were satisfactory, with values of 0.757 for Impulse buying behavior and 0.779 for Impulse buying tendency, indicating high level of explanatory power. Additionally, the model's fit was demonstrated by a standardized root mean square residual (SRMR) of 0.053, indicating a good fit. The results of the direct effects are shown in the Table 4.8 and for indirect effects in Table 4.9. The structural model is depicted in the Figure 4.1.

4.6.1 Hypotheses Testing

The first objective of the study emphasizes the examination of how individual factors influence online impulse buying behavior, with a particular focus on the mediating role of impulse buying tendency. Hypotheses H1 to H4, H27 and H 28 address this objective. H1, which posited a direct relationship between hedonic motivation (H.M) and IBB, was not supported ($O = 0.018$, $T = 0.395$, $p = 0.346$), indicating no significant direct effect. However, H2, which examined the relationship between H.M and IBT, was supported ($O = 0.075$, $T = 2.092$, $p = 0.018$), suggesting that hedonic motivation positively influences impulse buying tendency. Similarly, H3, which proposed a direct relationship between mood states (M.S) and IBB, was not supported ($O = 0.015$, $T = 0.377$, $p = 0.353$), showing no significant direct effect. Conversely, H4, which tested the impact of M.S on IBT, was supported ($O = 0.074$, $T = 1.96$, $p = 0.025$), indicating that mood states significantly enhance impulse buying tendency. Furthermore, the indirect effects were examined, and both H27 (H.M $\rightarrow$ IBT $\rightarrow$ IBB) and H28 (M.S $\rightarrow$ IBT $\rightarrow$ IBB) were supported, with H27 ($O = 0.014$, $T = 1.729$, $p = 0.042$) and H28 ($O = 0.013$, $T = 1.645$, $p = 0.005$) demonstrating that impulse buying tendency mediates the relationships of hedonic motivation and mood states with IBB with full mediation. Notably, the p-values for all supported hypotheses were less than 0.05, confirming their statistical significance. These findings highlight the absence of direct effects of H.M and M.S on IBB while emphasizing their significant indirect effects via IBT, underscoring the mediating role of impulse buying tendency in driving online impulse buying behavior.

The second objective examines the influence of promotional factors on online impulse buying behavior, with impulse buying tendency serving as a mediating variable. These factors include discount offers, online reviews, online campaigns, product recommendations, and limited-time deals. Hypotheses H5 to H14 and H29 to H33 address this objective. The direct effects of promotional factors on online impulse buying behavior (IBB) and impulse buying tendency (IBT) reveal significant findings across most hypotheses. Discount offers (DISC) have a

significant positive impact on both IBB (H5: $O = 0.106$, $T = 2.963$, $p = 0.002$) and IBT (H6: $O = 0.077$, $T = 2.097$, $p = 0.018$), highlighting their dual influence on impulsive consumer behavior. Reviews (REV), however, do not directly impact IBB (H7: $O = 0.006$, $T = 0.150$, $p = 0.440$), but they significantly enhance IBT (H8: $O = 0.123$, $T = 3.119$, $p = 0.001$), suggesting that positive reviews foster a tendency toward impulsive purchases rather than directly triggering buying behavior. Similarly, online campaigns (O.C) significantly influence both IBB (H9: $O = 0.109$, $T = 2.001$, $p = 0.023$) and IBT (H10: $O = 0.126$, $T = 2.356$, $p = 0.009$). Product Recommendations (REC.) also show a significant positive relationship with both IBB (H11: $O = 0.098$, $T = 2.293$, $p = 0.011$) and IBT (H12: $O = 0.088$, $T = 2.173$, $p = 0.015$), emphasizing their importance in shaping impulsive buying behaviors. Lastly, limited-time deals (LTD) significantly impact both IBB (H13: $O = 0.176$, $T = 2.838$, $p = 0.002$) and IBT (H14: $O = 0.125$, $T = 2.255$, $p = 0.012$), underscoring their effectiveness in driving immediate purchasing actions and developing impulsive tendencies.

In addition to the direct effects, the indirect effects of promotional factors on IBB via IBT were also significant. Discounts (DISC) indirectly influence IBB through IBT (H29: $O = 0.015$, $T = 1.755$, $p = 0.040$), showing complementary partial mediation, as do reviews (REV) (H30: $O = 0.023$, $T = 2.224$, $p = 0.013$), showing full mediation, online campaigns (O.C) (H31: $O = 0.024$, $T = 1.877$, $p = 0.030$), Product recommendations (REC.) (H32: $O = 0.017$, $T = 1.822$, $p = 0.034$), and limited-time deals (LTD) (H33: $O = 0.024$, $T = 1.810$, $p = 0.035$) showing with complementary partial mediation. These findings suggest that impulse buying tendency plays a crucial mediating role, amplifying the impact of promotional factors on online impulse buying behavior. Together, both direct and indirect effects highlight the significant role of promotional strategies in shaping online impulse buying behaviors and tendencies.

The third objective examines the effect of website-related factors and situational factors on online impulse buying behaviour, with impulse buying tendency as the mediating variable. Website related factors includes website aesthetics, security and privacy and convenience. The direct effects of website-related factors on online impulse buying behavior (IBB) and impulse buying tendency (IBT) reveal significant findings for some hypotheses. Aesthetics (AES) shows a strong positive impact on both IBB (H15: $O = 0.220$, $T = 4.988$, $p = 0.000$) and IBT (H16: $O = 0.195$, $T = 5.536$, $p = 0.000$), highlighting the importance of website aesthetics in driving impulsive consumer behavior and fostering impulsive buying tendencies. Security (SEC) does not have a direct impact on IBB (H17: $O = 0.036$, $T = 0.929$, $p = 0.177$), but it significantly influences IBT (H18: $O = 0.082$, $T = 2.058$, $p = 0.020$), suggesting that perceived

security enhances the likelihood of consumers developing a tendency to make impulsive purchases. Similarly, website convenience (CONV) does not directly influence IBB (H19: $O = 0.044$, $T = 1.168$, $p = 0.121$), but it positively affects IBT (H20: $O = 0.127$, $T = 3.271$, $p = 0.001$), indicating that ease of use and convenience are crucial in shaping impulsive purchase tendencies, even if they do not directly trigger impulsive buying behavior.

In addition to the direct effects, the indirect effects of website-related factors on IBB through IBT were also significant. Aesthetics (AES) indirectly influenced IBB through IBT (H34: $O = 0.037$, $T = 2.767$, $p = 0.003$) with complementary partial mediation, as did security (SEC) (H35: $O = 0.016$, $T = 1.721$, $p = 0.043$) and convenience (CONV) (H36: $O = 0.024$, $T = 2.283$, $p = 0.011$) with full mediation. These findings suggest that impulse buying tendency plays a crucial mediating role in translating the effects of website aesthetics, security, and convenience into online impulse buying behavior. Together, both direct and indirect effects highlight the significance of website-related factors in shaping online impulse buying behavior and the underlying tendencies that drive it.

The direct effects of situational factors on online impulse buying behavior (IBB) and impulse buying tendency (IBT) were tested across six hypotheses. Money availability (M.A) significantly influenced both IBB (H21: $O = 0.075$, $T = 2.077$, $p = 0.019$) and IBT (H22: $O = 0.085$, $T = 2.362$, $p = 0.009$), indicating that the availability of money enhances the impulse buying tendency, which in turn positively affects online impulse buying behavior. Credit card usage (CCU) had a significant positive effect on IBB (H25: $O = 0.076$, $T = 2.104$, $p = 0.018$), but it did not significantly influence IBT (H26: $O = 0.049$, $T = 1.323$, $p = 0.093$), suggesting that while credit card usage impacts impulsive buying behavior, it does not necessarily alter the underlying tendency to buy impulsively. On the other hand, time availability (TIME) did not significantly influence either IBB (H23: $O = 0.026$, $T = 0.620$, $p = 0.268$) or IBT (H24: $O = 0.052$, $T = 1.300$, $p = 0.097$), indicating that time availability has no direct impact on online impulse buying behavior or tendencies.

In addition to the direct effects, the indirect effects of these situational factors through IBT were also tested. Money availability (M.A) significantly influenced IBB through IBT (H37: $O = 0.016$, $T = 1.869$, $p = 0.031$), demonstrating the with complementary partial mediation of impulse buying tendency in the relationship between money availability and impulse buying behavior. However, time availability (TIME) and credit card usage (CCU) did not show significant indirect effects through IBT (H38: $O = 0.010$, $T = 1.157$, $p = 0.124$ and H39: $O =$

0.009, $T = 1.172$, $p = 0.121$, respectively), indicating that these factors do not significantly mediate the relationship between situational factors and online impulse buying behavior. These findings reinforce the mediating role of impulse buying tendency for money availability, while time availability and credit card usage appear to have limited indirect effects.

The direct effect of impulse buying tendency (IBT) on online impulse buying behavior (IBB) was tested in hypothesis H40, which was supported with significant results ($O = 0.190$, $T = 3.398$, $p = 0.000$). This indicates that impulse buying tendency plays a crucial role in directly influencing online impulse buying behavior. The positive relationship between IBT and IBB highlights that consumers with a higher tendency for impulse buying are more likely to engage in impulsive purchasing behavior when shopping online.

4.9 Direct Effects						
Hypotheses		Original sample (O)	Standard deviation (STDEV)	T statistics	P values	Results
Individual Factors						
H1	H.M -> IBB	0.018	0.044	0.395	0.346	Not supported
H2	H.M -> IBT	0.075	0.036	2.092	0.018	Supported
H3	M.S -> IBB	0.015	0.040	0.377	0.353	Not supported
H4	M.S -> IBT	0.074	0.038	1.96	0.025	Supported
Promotional Factors						
H5	DISC -> IBB	0.106	0.036	2.963	0.002	Supported
H6	DISC -> IBT	0.077	0.037	2.097	0.018	Supported
H7	REV -> IBB	0.006	0.40	0.150	0.440	Not supported
H8	REV -> IBT	0.123	0.039	3.119	0.001	Supported
H9	O.C -> IBB	0.109	0.054	2.001	0.023	Supported
H10	O.C -> IBT	0.126	0.053	2.356	0.009	Supported
H11	REC. -> IBB	0.098	0.043	2.293	0.011	Supported
H12	REC. -> IBT	0.088	0.040	2.173	0.015	Supported
H13	LTD -> IBB	0.176	0.062	2.838	0.002	Supported
H14	LTD -> IBT	0.125	0.056	2.255	0.012	Supported
Website related Factors						
H15	AES -> IBB	0.220	0.044	4.988	0.000	Supported
H16	AES -> IBT	0.195	0.035	5.536	0.000	Supported
H17	SEC -> IBB	0.036	0.039	0.929	0.177	Not supported

H18	SEC -> IBT	0.082	0.40	2.058	0.020	Supported
H19	CONV -> IBB	0.044	0.038	1.168	0.121	Not supported
H20	CONV -> IBT	0.127	0.039	3.271	0.001	Supported
Situational Factors						
H21	M.A -> IBB	0.075	0.036	2.077	0.019	Supported
H22	M.A -> IBT	0.085	0.036	2.362	0.009	Supported
H23	TIME -> IBB	0.026	0.042	0.620	0.268	Not supported
H24	TIME -> IBT	0.052	0.040	1.300	0.097	Not supported
H25	CCU -> IBB	0.076	0.036	2.104	0.018	Supported
H26	CCU -> IBT	0.049	0.037	1.323	0.093	Not supported
H40	IBT-> IBB	0.190	0.056	3.398	0.000	Supported

4.10 Specific Indirect Effects						
Hypotheses		Original sample (O)	Standard deviation (STDEV)	T statistics	P values	
H27	H.M -> IBT -> IBB	0.014	0.008	1.729	0.042	Supported
H28	M.S -> IBT -> IBB	0.013	0.008	1.645	0.005	Supported
H29	DISC -> IBT -> IBB	0.015	0.008	1.755	0.040	Supported
H30	REV -> IBT -> IBB	0.023	0.011	2.224	0.013	Supported
H31	O.C -> IBT -> IBB	0.024	0.013	1.877	0.030	Supported
H32	REC. -> IBT -> IBB	0.017	0.009	1.822	0.034	Supported
H33	LTD -> IBT -> IBB	0.024	0.013	1.810	0.035	Supported
H34	AES -> IBT -> IBB	0.037	0.013	2.767	0.003	Supported
H35	SEC -> IBT -> IBB	0.016	0.009	1.721	0.043	Supported
H36	CONV -> IBT -> IBB	0.024	0.011	2.283	0.011	Supported

H37	M.A -> IBT -> IBB	0.016	0.009	1.869	0.031	Supported
H38	TIME -> IBT - > IBB	0.010	0.009	1.157	0.124	Not supported
H39	CCU -> IBT - > IBB	0.009	0.008	1.172	0.121	Not supported

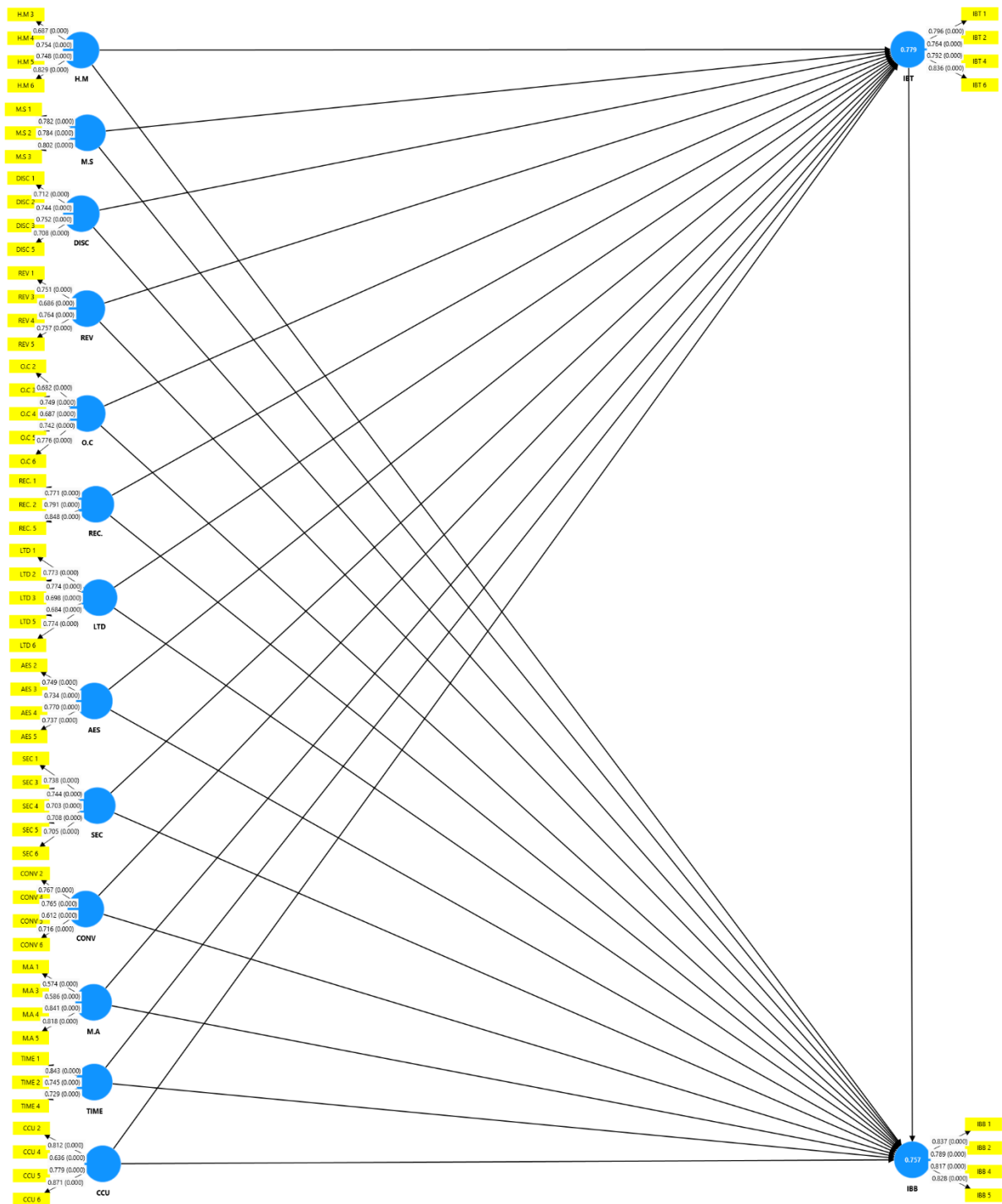


Figure 4.1 Structural model analysis and statistical relation between variables

4.7 PLS Predict

To evaluate the predictive relevance of the structural model, Q^2 Predict values were calculated for both endogenous variables. The Q^2 Predict values for online impulse buying behavior (0.730) and impulse buying tendency (0.761) are significantly greater than zero, indicating strong predictive relevance and validating the model's ability to predict out-of-sample data. As outlined by Shmueli et al. (2016), The PLSpredict procedure, utilizing a ten-fold cross-validation approach, was employed to estimate predictive error metrics for the indicators of the endogenous variables. The Q^2 Predict values for all indicators of the endogenous variables, were found to be greater than zero, providing additional evidence of the model's predictive relevance as shown in the Table 4.10.

The predictive accuracy of the proposed model was assessed by examining mean absolute error (MAE) values, particularly due to the non-symmetric distribution of predictive errors. Additionally, root mean square error (RMSE) values were reported to provide a more detailed evaluation. The findings reveal that, aside from one indicator, the majority of indicators exhibit lower prediction errors in terms of both MAE and RMSE compared to a linear regression model, indicating moderate to high predictive power of the PLS-SEM model (Shmueli et al., 2019). Table 4.10 presents the detailed results, including PLS-SEM_RMSE, PLS-SEM_MAE, LM_RMSE, and LM_MAE values for each indicator of the endogenous variable. These findings highlight the superior predictive capability of the PLS-SEM model and reaffirm its effectiveness and reliability in modeling complex relationships and predicting outcomes accurately.

4.11 PLS Predict Analysis					
	Q^2 predict	PLS-SEM_RMSE	LM_RMSE	PLS-SEM_MAE	LM_MAE
IBB 1	0.522	0.625	0.664	0.490	0.518
IBB 2	0.461	0.733	0.791	0.603	0.648
IBB 4	0.498	0.674	0.721	0.531	0.570
IBB 5	0.462	0.737	0.799	0.594	0.642

IBT 1	0.472	0.606	0.659	0.444	0.489
IBT 2	0.492	0.879	0.899	0.741	0.727
IBT 4	0.459	0.708	0.706	0.565	0.570
IBT 6	0.501	0.643	0.688	0.523	0.556

4.8 Discussion

Impulse buying has gained significant importance in today's consumer landscape, largely driven by the growth of e-commerce, digital platforms, and the pervasive use of smartphones and social media. The rise of online shopping has made impulse purchases easier through personalized recommendations, flash sales, and seamless checkout processes, while emotional triggers like excitement, urgency, and FOMO further fuel spontaneous buying behavior. Retailers have leveraged these factors to boost sales, especially in sectors like fashion, electronics, and food, where consumer decisions are often emotional and instantaneous. For marketers, understanding impulse buying is crucial in crafting targeted strategies that appeal to consumers' emotional states and impulsive tendencies. Existing research examines the influence of individual, promotional, website-related, and situational factors on online impulse buying behavior (IBB), with a particular focus on the mediating role of impulse buying tendency (IBT). The research develops a comprehensive model that integrates these various factors to offer both theoretical and practical insights into the growing phenomenon of online impulse buying. Conducted in the northern region of India, including the states of Punjab, Haryana, Delhi, and Chandigarh, the study surveyed a total of 415 respondents. By exploring how these factors interact to influence online consumer behavior, the study seeks to advance our understanding of the drivers behind impulsive online purchases. The results of the hypotheses are present in the Table 4.9 and 4.10.

The findings reveal that while hedonic motivation does not directly influence online impulse buying behavior, it significantly impacts impulse buying tendency, which mediates this relationship. This aligns with previous research, Consumers exhibiting elevated impulsive traits are more likely to experience an intensified desire to engage in unplanned purchases, stimulated by their inclination toward hedonistic motivation (Wang et al., 2020). Furthermore, prior studies have reported consistent findings regarding the direct relationship between hedonic motivation and impulse buying tendency (Parsad et al., 2021). The enjoyment or

pleasure derived from shopping cultivates an internal psychological state, such as impulsivity, which makes individuals more susceptible to unplanned purchases when triggered by suitable external stimuli (Arroyo and Guaderrama, 2022). The study found that mood states do not have a direct influence on online impulse buying behavior, suggesting the presence of intervening factors that mediate this relationship as stated by Lai and Yan (2006). However, mood states significantly impact impulse buying tendency, which, in turn, mediates their relationship with online impulse buying behavior, showing consistent results with Iyer et al., (2019). This highlights the importance of mood-driven marketing strategies, such as personalized recommendations and aesthetically pleasing website designs, to enhance impulse buying tendencies.

The findings underscore the pivotal role of discount offers in shaping online impulse buying behavior and impulse buying tendency. The results indicate that discount offers not only directly encourage impulsive purchases but also enhance individuals' predisposition toward impulsive buying. Importantly, impulse buying tendency serves as a significant positive mediator, amplifying the effect of discount offers on online impulse buying behavior. This suggests that consumers with a higher tendency to buy impulsively are more likely to respond to discount offers, translating these promotional strategies into actual purchasing behavior. These insights align with existing literature that highlights the psychological appeal of discounts and their ability to trigger spontaneous purchase decisions as stated by Xu and Huang (2014). Furthermore, the mediating role of impulse buying tendency reinforces the importance of considering individual psychological factors when designing promotional strategies. The results suggest that while online reviews may not directly prompt impulsive purchases, they play a crucial role in fostering a predisposition toward impulsive buying. Furthermore, the mediating role of impulse buying tendency highlights its significance in bridging the gap between online reviews and actual impulsive purchasing behavior. These results align with prior research that underscores that significant and noteworthy variations among consumers are observed based on their levels of impulsiveness, influencing the process through which online reviews impact impulse buying behavior (Zhang et al., 2018). From a practical perspective, this highlights the importance of well-crafted and persuasive online reviews in influencing consumer tendencies, even if their direct influence on impulsive buying behavior is limited. Marketers can leverage this insight by fostering authentic and engaging review content to nurture impulse buying tendencies, ultimately driving sales indirectly.

The findings highlight the significant positive impact of online campaigns on both online impulse buying behavior and impulse buying tendency. This underscores the effectiveness of digital marketing efforts in stimulating spontaneous purchase decisions among consumers. Online campaigns, often designed to be engaging and visually appealing, effectively capture consumers' attention and create a sense of urgency or excitement (Chen and Li, 2020), thereby encouraging impulsive purchases. Additionally, these campaigns contribute to shaping consumers' predisposition toward impulsive buying, reinforcing their likelihood of responding to promotional cues. These results align with existing literature emphasizing the persuasive power of digital advertising in driving unplanned purchases.

The findings confirm that product recommendations play a significant role in driving both online impulse buying behavior and impulse buying tendency. This finding aligns with the principles of personalized marketing strategies, which seek to shape consumer decisions by directly addressing their individual preferences and interests (Chandra et al., 2022). The results also demonstrate that impulse buying tendency acts as a mediator in the relationship between product recommendations and online impulse buying behavior. This suggests that while product recommendations directly encourage spontaneous purchases, they also shape consumers' predisposition toward impulsive buying, which further amplifies their influence on actual behavior. The results demonstrate that limited-time deals significantly enhance both online impulse buying behavior and impulse buying tendency. This finding aligns with prior studies emphasizing the effectiveness of time-sensitive promotions in creating urgency and encouraging spontaneous purchases (Aggarwal & Vaidyanathan, 2003; Wu et al., 2021). The confirmation of H33 further establishes the mediating role of impulse buying tendency in the relationship between limited-time deals and online impulse buying behavior. This suggests that limited-time deals not only directly trigger impulsive purchases but also shape a consumer's predisposition to act on such promotions, amplifying their overall influence.

The findings highlight the significant positive impact of website aesthetics on both online impulse buying behavior and impulse buying tendency (IBT). This underscores the importance of visually appealing and well-designed websites in influencing consumer behavior. Consistent with previous research, aesthetically pleasing websites enhance users' emotional engagement and create a conducive environment for impulsive purchasing (Deng & Poole, 2010; Liu et al., 2013). Additionally, the mediating role of IBT in the relationship between website aesthetics and online impulse buying behavior suggests that while attractive website designs directly encourage impulsive purchases, they also shape a consumer's predisposition to act impulsively.

The results indicate that security and privacy do not have a direct impact on online impulse buying behavior. However, a significant direct relationship is observed between security and privacy and impulse buying tendency (IBT), highlighting their role in shaping consumers' predisposition toward impulsive purchases. Additionally, IBT mediates the relationship between security and privacy and online impulse buying behavior, suggesting that while these factors may not directly trigger impulsive purchases, they foster a sense of trust and confidence, which enhances consumers' tendency to engage in impulse buying. These findings are consistent with prior studies that emphasize the role of security and privacy in reducing perceived risks and promoting positive psychological states conducive to impulsive behaviors (Hasim et al., 2018).

The findings reveal that convenience does not directly influence online impulse buying behavior. However, a significant positive relationship between convenience and impulse buying tendency was found highlighting the role of convenience in shaping consumers' predisposition toward impulsive purchases. Additionally, IBT is found to mediate the relationship between convenience and online impulse buying behavior. This suggests that while convenience alone may not directly trigger impulsive purchases, it fosters a favorable psychological state that enhances consumers' likelihood of engaging in such behavior. These findings are consistent with previous research emphasizing the role of convenience and ease in using website that enhancing shopping satisfaction, which indirectly encourages impulsive buying (Chen et al., 2018).

The findings indicate that money availability positively influences both online impulse buying behavior (IBB) and impulse buying tendency (IBT). This highlights the critical role of financial resources in enabling consumers to make spontaneous purchase decisions. Furthermore, IBT is found to mediate the relationship between money availability and IBB, suggesting that while financial resources directly facilitate impulsive buying, they also enhance consumers' predisposition to act on impulse, amplifying their influence on actual buying behavior. These results align with previous research emphasizing the role of financial factors in reducing purchase-related constraints (Foroughi et al., 2012), thereby fostering impulsive consumption (Badgaiyan and Verma, 2015).

The findings reveal that time availability does not have a direct impact on either online impulse buying behavior (IBB) or impulse buying tendency (IBT). Consequently, IBT does not mediate the relationship between time availability and online impulse buying behavior. These results

suggest that having more available time alone does not necessarily lead consumers to make impulsive purchases or develop a tendency for such behavior. This contrasts with prior research that proposed time availability as a potential enabler for impulsive buying by reducing the urgency associated with decision-making (Beatty and Ferrell, 1998). However, It is noteworthy that conflicting findings have been reported, with some studies indicating no significant impact of time availability on impulsive buying behavior (Pattipeilohy & Rofiaty, 2013; Maymand & Ahmadinejad, 2011).

The findings indicate that credit card usage has a direct positive relationship with online impulse buying behavior, this underscores the role of credit cards in facilitating impulsive purchases by offering financial flexibility and reducing the immediate perceived cost of transactions. However, no significant relationship is observed between credit card usage and impulse buying tendency, and IBT does not mediate the relationship between credit card usage and IBB. These results suggest that while credit card usage directly encourages impulsive buying behavior, it does not influence consumers' inherent predisposition toward impulsive purchases. This aligns with prior research indicating that the ease of payment and delayed financial accountability associated with credit cards directly trigger impulsive actions, bypassing psychological tendencies (Karbasivar and Yarahmadi, 2015).

The findings demonstrate that impulse buying tendency (IBT) positively influences online impulse buying behavior (IBB), highlighting the critical role of consumers' psychological predisposition in shaping their spontaneous purchasing actions. This relationship aligns with the theoretical foundations of the Stimulus-Organism-Response (S-O-R) framework, where IBT acts as an organismic factor mediating the effects of external stimuli on consumer responses (Mehrabian & Russell, 1974). Previous research supports this observation, indicating that individuals with a high tendency toward impulsive buying are more likely to exhibit unplanned purchasing behavior in online environments (Verplanken and Herabadi, 2001; Sun and Wu, 2011). The convenience, variety, and immediacy offered by e-commerce platforms may further amplify the impact of IBT on actual buying behavior, as these factors reduce barriers to acting on impulsive urges. While the study provides meaningful insights into the influence of various factors on online impulse buying behavior, the findings should be interpreted within the scope of the data and methodology employed. Not all hypothesized relationships were supported, and certain variables, such as time availability and mood states, demonstrated more complex or indirect effects than initially anticipated. Therefore, the

conclusions drawn are grounded in empirical evidence but remain open to further validation through future research.

4.9 Summary of the Chapter

Chapter Four is dedicated to empirically testing the research hypotheses. Before conducting the analysis, it is crucial to examine common method bias (CMB), multicollinearity, and data normality to ensure the robustness of the results. This chapter provides a detailed overview of descriptive statistics, CMB assessment, and data diagnostics, along with an evaluation of reliability and validity. It further outlines the measurement model assessment and the structural model evaluation, demonstrating the predictive relevance of the proposed framework. The results are systematically presented in accordance with the research objectives and hypotheses, with each hypothesis being tested and its outcome determined based on the findings. Additionally, the study's results are critically compared with existing literature to identify alignments and discrepancies. By integrating these comparative insights, the chapter not only situates the findings within the broader academic discourse but also highlights the unique contributions and theoretical implications of the research.

Chapter 5

Implications, Limitations, and Future Research Directions

Impulse buying has emerged as a significant contributor to sales in the contemporary retail sector, accounting for a substantial portion of revenue generation. The COVID-19 pandemic has further amplified this phenomenon, with a noticeable increase in consumer spending on unplanned purchases. Recent surveys indicate that the average monthly expenditure by American consumers on impulse purchases has risen by 18% since the onset of the pandemic (Keenan, 2021). Despite the broader economic disruptions caused by COVID-19, impulse buying continues to thrive, with experts estimating that approximately 20% of retail sector sales can be attributed to spontaneous purchase decisions (Repko, 2020). The marketplace operates in an unpredictable environment (Jain et al., 2022), where shifting consumer behaviors and external factors constantly reshape retail dynamics.

These statistics underscore the growing significance of impulse buying in the global retail landscape, making it an area of increasing interest among researchers. The global economy is swiftly evolving into a knowledge-driven economy, where information and expertise play a crucial role in shaping industries. This transformation is also evident in online shopping (Pandey and Dharni, 2014), where consumer decisions are increasingly influenced by digital content, data-driven recommendations, and personalized marketing strategies.

Over the years, the impulse buying phenomenon has been examined from various perspectives, employing diverse conceptual frameworks and methodological approaches. However, despite the growing body of research, the literature on impulse buying remains highly fragmented (Kimiagari & Malafe, 2021; Li et al., 2021). This fragmentation is evident in the array of theoretical foundations utilized by researchers, reflecting a lack of consensus on the conceptualization and dynamics of impulse buying behavior. Theoretical diversity in this domain suggests that the field is still evolving, with researchers exploring multiple perspectives to understand the complex interplay of factors influencing impulse buying.

Given the fragmented nature of the literature, there is a pressing need for a comprehensive synthesis of existing research. Consolidating insights into the factors influencing impulse buying can help address inconsistencies in the literature and advance a more unified understanding of the phenomenon. This includes integrating perspectives on individual factors, situational factors, promotional factors, and website-related factors in retail environments.

Such an approach will not only provide clarity on the current state of research but also identify gaps and opportunities for future studies to refine theoretical frameworks and methodological approaches. Furthermore, the global retail industry's reliance on impulse buying as a critical revenue driver highlights the practical importance of understanding its underlying mechanisms. A deeper exploration of this phenomenon can inform retailers' strategies to design effective interventions, such as targeted marketing campaigns and personalized promotions, to stimulate consumer engagement while fostering ethical practices.

5.1 Theoretical Implications

This research makes significant theoretical contributions to the existing body of literature on online impulse buying behavior by advancing the understanding of the complex interplay between individual, promotional, website-related, and situational factors and their influence on consumer behavior. By adopting multiple theoretical lenses, such as the Stimulus-Organism-Response (S-O-R) Framework, Consumption Impulse Formation and Enactment, Self-Determination Theory (SDT), and the Competitive Arousal Model, the study provides a multidimensional perspective on how impulse buying behaviors emerge in online environments.

While prior studies employing the S-O-R framework have predominantly focused on external stimuli (Parboteeah et al., 2009; Xiang et al., 2016; Wu and Lee, 2016; Chen and Yao, 2018; Zhu et al., 2020) and their direct influence on consumer responses, this research introduces the mediating role of impulse buying tendency as a critical component within the framework. In this study, the stimuli encompass individual factors (e.g., hedonic motivation, mood states), promotional factors (e.g., limited-time deals, discount offers, product recommendations, online campaigns and online reviews), website-related factors (e.g., website aesthetics, security and privacy and convenience), and situational factors (e.g., time availability, money availability and credit card usage). These elements represent diverse external triggers that capture the multidimensional nature of online shopping environments. Unlike earlier research, which typically examined a limited set of stimuli in isolation (Huang, 2016; Liao, 2016), this study takes a comprehensive approach by integrating these varied factors, thereby providing a more holistic understanding of how external stimuli influence consumer behavior. The study identifies impulse buying tendency as the critical mediating variable, representing the internal cognitive and emotional processes that occur in response to external stimuli. By emphasizing impulse buying tendency as the organism, this research highlights how individual emotions, motivations, and psychological tendencies transform external stimuli into actionable responses.

For example, promotional factors such as discounts or time-limited offers may evoke a sense of urgency, while website-related features may enhance emotional engagement, both contributing to the development of impulse buying tendencies. By advancing the S-O-R framework in these ways, this research provides a deeper understanding of the interplay between external factors, internal processes, and consumer behavior, making it highly applicable to the study of online impulse buying behavior.

The present research makes significant theoretical contributions by advancing the Consumption Impulse Formation and Enactment (CIFE) Model, originally proposed by Dholakia (2000), and enriching its application in the context of online impulse buying behavior. By incorporating all three foundational components of the CIFE model situational factors, marketing stimuli, and individual impulsivity traits this study provides a more nuanced and comprehensive understanding of the factors influencing online impulse buying behavior.

Previous studies have emphasized situational factors, such as, normative evaluation, anticipated merchandise diversity in triggering consumption impulses (Dawson and Kim, 2009; Tan et al., 2023). This research contributes to the literature by exploring credit card usage as a situational factor, demonstrating its role in amplifying the perceived ease of spending and reducing immediate financial constraints, thereby increasing the likelihood of impulse buying. Unlike traditional retail contexts, this study underscores how digital payment systems influence consumers' cognitive evaluation processes, offering fresh insights into the interaction between situational factors and online consumer behavior. While prior research on the CIFE model has largely focused on traditional promotional elements, this study expands the scope of marketing stimuli to include modern online marketing techniques, such as online reviews, personalized product recommendations, limited-time offers, and online campaigns. By highlighting these factors, this study underscores how digital marketing strategies uniquely influence impulse buying by creating urgency, fostering trust, and increasing consumer engagement. This integration reflects the dynamic and evolving nature of online shopping environments, extending the applicability of the CIFE model to contemporary digital commerce. A novel contribution of this research is its investigation of how the three components of the CIFE model interact in online environments to influence impulse buying behavior. Specifically, it examines the interplay of promotional factors, situational factors, and individual impulsivity in driving impulsive consumption. This integration allows for the development of a comprehensive model that reflects the complexity of online consumer decision-making, addressing gaps in the literature where these components have often been studied in isolation. This research extends

the CIFE model's application by contextualizing it in the rapidly evolving e-commerce environment. It demonstrates how unique attributes of online shopping such as ease of access, digital payment systems, and targeted marketing interact with traditional components of the model to shape impulse buying behavior. This contextualization is a significant contribution, as prior applications of the CIFE model in online impulse buying behavior is limited (Redine et al., 2022), leaving a gap in understanding its relevance in digital commerce. By applying the CIFE model to the online shopping environment and integrating modern promotional strategies, situational factors, and individual impulsivity, this research offers a novel theoretical lens for understanding the complexities of online impulse buying behavior. It not only validates the relevance of the CIFE model in the digital era but also expands its explanatory power, making it more applicable to the dynamic and rapidly changing online retail landscape.

Self-Determination Theory (SDT) has been a cornerstone for understanding human motivation in various fields such as education, sports, workplace studies, and organizational behavior (Ling et al., 2024). Its broad applicability has established SDT as a comprehensive framework for exploring how intrinsic and extrinsic motivations influence behavioral outcomes. In the domain of marketing, Gilal et al. (2019) emphasized the need for leveraging SDT to decode consumer behavior, highlighting its potential to uncover the psychological processes underlying purchasing decisions. This research extends the application of SDT by incorporating it into the study of online impulse buying behavior, a relatively underexplored area in the SDT literature. While previous studies have predominantly focused on motivation in structured decision-making or habitual consumption, this study applies SDT to impulsive, emotion-driven consumer actions. Specifically, it investigates how intrinsic motivators, such as hedonic motivation and mood states, and extrinsic motivators, such as limited-time deals and credit card incentives, interact to influence online impulse buying behavior, with impulse buying tendency serving as a mediating mechanism. The novelty of this research lies in its pioneering application of Self-Determination Theory (SDT) to the context of impulsive and spontaneous online buying behavior, thereby extending the theoretical scope of SDT beyond its traditional focus on deliberate and goal-driven actions. By examining the interplay between intrinsic motivators, such as hedonic motivation and mood states, and extrinsic motivators, such as promotional factors like discounts and credit card incentives, this study provides a nuanced understanding of how these motivational forces converge to drive impulse purchases. This integration of multiple motivational factors enriches the SDT framework by demonstrating its relevance and adaptability in dynamic, consumer-driven environments.

Furthermore, the study emphasizes the mediating role of impulse buying tendency, shedding light on the psychological mechanisms through which motivations are translated into actual consumer behavior. Unlike traditional retail settings, the online shopping environment is characterized by features such as instant access, abundant choices, and personalized marketing, which present unique challenges and opportunities. By situating SDT in this digital context, the research showcases how the theory can be effectively adapted to understand and address the distinct characteristics of online marketplaces. In doing so, it not only advances the theoretical understanding of SDT by contextualizing it within impulsive decision-making but also provides practical insights for marketers aiming to align their strategies with consumers' intrinsic and extrinsic motivations. Ultimately, this study bridges a critical gap in the existing literature and establishes a foundation for future research at the intersection of motivation, impulse buying, and online consumer behavior.

The theoretical implications of this research is also grounded in the Competitive Arousal Model, which provide valuable contributions to understanding the mechanisms driving online impulse buying behavior. This model, which highlights how emotional arousal triggered by competitive and time-sensitive factors can override rational thought and lead to impulsive decisions, offers a robust framework for exploring the dynamics of consumer behavior in digital marketplaces. Unlike previous studies that have primarily focused on individual or environmental factors in isolation, this research integrates the Competitive Arousal Model to analyze how external stimuli such as limited-time deals, flash sales in online campaigns, and exclusive deals trigger heightened emotional responses and arousal. By examining how these competitive and urgency-inducing elements interact with consumers' impulsive tendencies, this research extends the model's application to the digital retail context, where competition and urgency are strategically designed by marketers. The study also emphasizes the mediating role of impulse buying tendency in translating arousal-inducing stimuli into actual purchase behavior, shedding light on the psychological processes that connect external triggers with internal responses and subsequent consumer actions. Furthermore, this research demonstrates the relevance of the Competitive Arousal Model in explaining how online retail environments uniquely amplify competitive dynamics and urgency through technological features, such as countdown timers, stock scarcity indicators, and personalized promotional messages. By doing so, it broadens the theoretical scope of the model, showcasing its applicability beyond traditional competitive scenarios like auctions or sports events to the increasingly important domain of e-commerce. This research not only advances theoretical understanding by

contextualizing the Competitive Arousal Model within online impulse buying but also provides actionable insights for marketers. It highlights the importance of strategically leveraging competitive elements and urgency to influence consumer behavior while cautioning against the potential ethical implications of exploiting heightened arousal to drive impulsive purchases. In this way, the study bridges a critical gap in the literature and sets a foundation for future research exploring the intersection of competition, arousal, and consumer decision-making in digital retail environments.

The study's fourth objective, which involves designing an integrated model to explain online impulse buying behavior, represents a significant theoretical advancement. Previous studies have often examined individual, promotional, website-related, and situational factors in isolation (Bandyopadhyay, 2016; Floh and Madelberger, 2013; Badgaiyan and Verma, 2015; Bandyopadhyay et al., 2021). By synthesizing these dimensions into a unified model, this research provides a comprehensive framework that explains how these factors, together with the mediating role of impulse buying tendency, drive consumer behavior. This model not only bridges theoretical gaps in existing research but also serves as a foundation for future investigations into the multi-faceted nature of impulse buying.

5.2 Practical Implications

The findings of this study provide several actionable insights for digital marketers, e-commerce platforms, and retailers aiming to strategically influence online impulse buying behaviour (IBB) by targeting impulse buying tendency (IBT) through tailored interventions. Given the strong role of hedonic motivation and mood states in shaping IBT, retailers should enhance the hedonic value of their platforms by introducing enjoyable, immersive experiences. This can be achieved through gamified elements such as spin-the-wheel offers, loyalty games, and interactive quizzes, all of which increase consumer engagement and spontaneous action. Incorporating augmented reality (AR) features, such as virtual try-ons and interactive product displays, can also heighten sensory stimulation and emotional connection, thus reinforcing impulsive tendencies.

The study also reveals that promotional factors like limited-time deals, discount offers, and online campaigns significantly affect both IBT and IBB. Marketers should design promotions that convey urgency and scarcity, such as countdown timers, limited-stock indicators, and flash sales. These elements appeal to consumers' fear of missing out (FOMO) and trigger rapid decision-making. Personalized promotions, based on browsing history or past purchases, can

further increase relevance and the likelihood of unplanned purchases. These offers should be communicated clearly at key decision points—such as product pages and check-out screens—to convert interest into immediate action.

Social influence mechanisms, especially online reviews and recommendations, were also found to shape consumer tendencies. Retailers can utilize verified user-generated content and real-time feedback tools to reinforce product credibility. Encouraging customers to share reviews post-purchase through small incentives (e.g., discounts on next purchases or loyalty rewards) not only enhances content volume but also establishes social proof. Strategic placement of these reviews on product pages and during browsing can subtly nudge consumers toward spontaneous purchases

Website aesthetics and convenience were also found to be essential contributors to both IBT and IBB. Retailers should continuously refine their digital interfaces to ensure they are visually appealing, easy to navigate, and emotionally engaging. This includes using high-quality visuals, consistent branding, intuitive layouts, and fast loading speeds. Regular A/B testing of key design elements such as CTA buttons, layout structure, and colour schemes can help identify what combinations are most effective at inducing impulse responses.

Trust-building elements also emerged as crucial for developing IBT, particularly through perceptions of security and privacy. E-commerce platforms should visibly highlight trust badges, secure checkout icons, and transparent privacy policies to reduce consumer hesitation. In parallel, offering multiple convenient payment options including mobile wallets, one-click checkouts, and auto-fill capabilities can reduce transactional friction and make impulse purchases more seamless.

Importantly, the findings underscore the significant impact of credit card usage and flexible financing on IBB. Retailers should partner with financial institutions to promote buy-now-pay-later (BNPL) schemes, no-cost EMIs, and exclusive credit card offers. Clearly communicating these options at the point of purchase alongside benefits such as cashback or loyalty points can encourage consumers to make unplanned purchases by lowering the immediate financial burden.

In sum, this study highlights the need for a holistic digital marketing approach that integrates emotional, technological, and financial triggers to stimulate online impulse buying. By aligning website design, promotional messaging, payment options, and emotional engagement strategies with consumers' psychological tendencies, retailers can create shopping

environments that are not only more enjoyable and responsive but also more effective in converting spontaneous impulses into real purchases.

5.3 Limitations

Despite the valuable insights provided by this study, several limitations should be acknowledged to ensure transparency and critical reflection. First, while the study focuses on data collected from respondents in the northern region of India including Punjab, Haryana, Delhi NCR, and Chandigarh this regional focus may introduce selection bias, especially since only participants who had made at least six online purchases in the past year were included. This criterion potentially excludes infrequent online shoppers, which could skew the findings toward more digitally active consumers. As a result, the generalizability of the results may be limited. Future studies should consider broader geographic sampling and include consumers with varying online shopping frequency to mitigate such bias. Second, the cross-sectional nature of the study limits the ability to draw definitive causal inferences. Although Structural Equation Modeling (SEM) helps identify associations among variables, it cannot fully establish cause-and-effect relationships. Longitudinal or experimental designs could better capture dynamic behavioural changes and temporal sequences.

Third, the study is based on self-reported data, which may be susceptible to recall inaccuracies, common method variance, or social desirability bias. While validated scales were used to minimize this issue, incorporating behavioral or transaction data in future research could enhance validity. Fourth, while impulse buying tendency (IBT) is a central mediator in the study, the research does not explore potential divergent perspectives or alternate theoretical pathways such as emotional regulation, cognitive dissonance, or socio-cultural norms that may also play critical roles. A broader inclusion of perspectives would provide a more holistic understanding of consumer behaviour.

Finally, the fast-paced evolution of digital commerce, including AI-driven recommendations, gamified platforms, and augmented reality shopping experiences, may alter the nature of online impulse buying over time. As such, this study reflects a snapshot of consumer behaviour at a particular time and technological state. Future research should adapt to these evolving trends and technologies to retain relevance and theoretical robustness.

5.4 Future Research Directions

While this study provides valuable insights into the factors influencing online impulse buying behavior (IBB) and impulse buying tendency (IBT), several avenues for future research remain. Firstly, the role of individual differences, such as personality traits (e.g., impulsiveness, need for variety), socio-economic status, and lifestyle, warrants further investigation. Exploring how these factors moderate or mediate the relationship between external stimuli (e.g., product recommendations, promotions) and IBB could provide a more nuanced understanding of consumer behavior. Additionally, it would be valuable to examine how demographic factors, such as age, gender, or income, influence susceptibility to impulse buying in different product categories. Future research could delve deeper into the interaction between offline and online shopping behaviors. As consumers increasingly engage in omnichannel shopping, understanding how in-store experiences or offline purchasing habits influence online impulse buying tendencies could provide new insights. Investigating how the integration of physical and digital retail environments shapes consumer decision-making processes could offer practical implications for retailers striving to create a seamless and compelling shopping experience across platforms. Another avenue for future research is to explore the impact of emerging technologies, such as artificial intelligence (AI), virtual reality (VR), augmented reality (AR), and voice assistants, on online impulse buying behavior. As these technologies become more integrated into the shopping experience, understanding how they influence consumer perceptions, emotions, and decision-making processes could provide valuable insights for marketers looking to leverage these innovations. Moreover, the role of sustainability in online impulse buying behavior presents a growing area of interest. As consumers become increasingly aware of environmental and ethical concerns, future research could explore how factors such as eco-friendly products, sustainable shopping practices, and social responsibility influence impulse buying tendencies, especially in markets where consumers are more socially conscious. Lastly, there is a need to explore the effects of different types of online campaigns in greater detail. While this study focused on discount offers and promotional campaigns, future research could investigate other forms of digital marketing, such as influencer marketing, social media advertising, and interactive content, to assess their effectiveness in stimulating IBB and IBT. Additionally, the role of post-purchase behavior in the context of online impulse buying is an area ripe for exploration. Understanding the cognitive dissonance that may arise after an impulsive purchase, and how it affects subsequent buying behavior, could help retailers refine post-purchase communication and improve customer retention. Research could also investigate how online return policies, customer

support, and refund processes impact consumers' emotional responses and future impulse buying decisions.

In conclusion, future research can contribute to a more detailed understanding of online impulse buying behavior by exploring a wider range of factors, utilizing innovative methodologies, and addressing the evolving landscape of retail and consumer technology. By expanding the scope of current research, scholars can help both academics and practitioners better navigate the complexities of impulsive consumer behavior in the digital age.

5.5 Summary of the Chapter

Chapter Five presents a comprehensive discussion of the study's theoretical and practical implications, offering valuable insights for academics, policymakers, and marketing practitioners. The theoretical contributions advance the understanding of online impulse buying behavior by integrating key psychological and behavioral frameworks, while the practical implications provide strategic recommendations for enhancing digital marketing initiatives, promotional strategies, and consumer engagement techniques. The chapter also critically examines the limitations of the study, including sample representativeness, potential response biases, and methodological constraints, which may affect the broader applicability of the findings. Furthermore, it outlines future research directions, emphasizing the need for longitudinal studies, cross-cultural analyses, and the examination of emerging digital technologies in shaping online impulse buying behavior. By addressing these aspects, the chapter reinforces the study's academic contributions while identifying avenues for further scholarly exploration.

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Appendix

Questionnaire

Dear Respondents,

I am Aastha (Research Scholar) pursuing my Ph.D. (Doctor of Philosophy) from Thapar Institute of Engineering and Technology, Patiala, Punjab, under the guidance and supervision of Dr. Apurva Bakshi. This survey is based on my doctoral research on the topic, “Factors Influencing Online Impulse Buying Behaviour: An Empirical Study from Northern India”.

The survey is divided into two sections. The first section includes the personal details of the respondents. The second section starts with questions regarding the study. I assure you that information disclosed will be kept confidential and used for research purposes only.

If you have any query regarding the questionnaire, feel free to contact us at

Email address: aaastha_phd21@thapar.edu

Section- 1

Personal details

Name of respondent	
E-mail address	
Age of the respondent	I. Below 18 years II. 18-30 years III. 31-45 years IV. Above 45 years
Gender	I. Male II. Female III. Others
Educational qualification	I. Senior secondary II. Graduation III. Post-graduation and above
Region	I. Punjab II. Haryana III. Chandigarh IV. Delhi (NCR)
Annual income of the household	I. Less than ₹2 lakhs II. ₹2 lakhs – ₹5 lakhs III. ₹5 lakhs – ₹10 lakhs IV. Above ₹10 lakhs

How many times did you shop online within the last one year?	I. Less than 6 times II. 6 times or more than that
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Section 2

Please read each of the following statements carefully and tick mark beside each statement in the column that best reflects your agreement with the given statement.

A. Individual factors

These factors represent the traits and characteristics that creates a distinction in the urge of different individuals to make impulse purchases. This construct is further divided into 2 sub-constructs:

A.1 Hedonic motivation

When an individual make purchase for potential entertainment and affective worth associated with the shopping experience.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
A.1.1	I shop for pleasure.					
A.1.2	"I see it, I buy it" describes my shopping behaviour.					
A.1.3	During shopping, I feel excited.					
A.1.4	It is fun to buy spontaneously.					
A.1.5	I browse shopping websites for enjoyment or fun.					
A.1.6	Compared to others activities, spending time on shopping is so enjoyable.					

A.2 Mood states

The buying behaviour of the consumer is influenced by their emotions and mood states. Positive or negative affect of the shoppers have significant influence on the impulse buying behaviour of the consumer (Verplanken & Sato, 2011).

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

A.3.1	I buy things according to how I feel at the moment.					
A.3.2	I shop to cheer myself up.					
A.3.3	I tend to shop more when I am in a good mood.					
A.3.4	My mood affects my actions.					
A.3.5	I shop to alleviate my boredom.					

B. Promotional factors

Promotional factors are the external factors that affects the purchase behaviour of the consumer. These factors comprise of the various strategies or methods that compels the buyers to make the purchase instantly. This sub-construct is further divided into 5 sub-constructs:

B.1 Discount offers

The sales promotion strategy which is price based in which products are offered for sale at the reduced price are termed as price discounts.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
B.1.1	Discounts make me buy more spontaneously.					
B.1.2	Although I visited the website to purchase a specific product, I got inclined to buy some other product offering better discount offers.					
B.1.3	Larger discount percentages stimulate the urge in me to make a purchase.					
B.1.4	I feel a sense of accomplishment on getting the products at reduced prices.					
B.1.5	The first thing that influences me is the product's appearance and then its price.					

B.2 Online reviews

A review regarding the product or service posted by the consumer sharing the experience of using the product or service.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
B.2.1	I rely on online reviews to make a purchase decision.					
B.2.2	I believe that the information provided in the reviews is trustworthy.					
B.2.3	The reviews help me to evaluate the product.					
B.2.4	Positive reviews make me purchase instantly.					
B.2.5	I will buy the product even at a high price, if it has positive reviews.					

B.3 Online campaigns

By keeping in mind, the new age customer's lifestyle, online shopping websites has created strong internet presence by providing the best offers to the shoppers in various online campaigns. 'Big Billion Day' by Flipkart, 'End of reason sale' by Myntra, 'Great Indian festival' by Amazon are the best examples of successful online campaigns.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
B.3.1	I always shop at the online campaigns.					
B.3.2	The deals of the online campaigns attract me.					
B.3.3	I feel the fear of missing out if I don't shop at the online campaigns.					
B.3.4	I wait eagerly for the online shopping festivals.					
B.3.5	I make unplanned purchases at the shopping festivals.					
B.3.6	Low prices at the online campaigns stimulate me to shop in the large quantity.					

B.4 Product recommendations

Recommendation agents have been used by the e-tailers for providing the personalised shopping experience to the buyers. These agents recommend the products on the basis of the buyer's interests, browsing behaviour, or the products they have added to their carts.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
B.4.1	Product recommendation posts excite me.					
B.4.2	Recommendations about the 'frequently bought together' products urge me to buy the recommended product when purchasing the original one.					
B.4.3	I find more favourable products through product recommendations.					
B.4.4	I find the product recommendations interesting.					
B.4.5	As I read product recommendations, I have the urge to purchase items that did not pertain to my specific shopping goal.					
B.4.6	Shopping websites frequently pop up the recommendations of the products I have seen earlier.					

B.5 Limited time deals

The deals or discounts which are offered to the customers for specific period of time are the limited time deals. For example, flash sales on smart phones, discount offers for a limited time, free shipping for a day etc.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
B.5.1	The countdown excites me.					
B.5.2	I make unplanned purchases on the limited time deals.					
B.5.3	Shopping on the limited time deals makes me feel like a smart shopper.					

B.5.4	I tend to purchase in a large quantity on getting discount offers with time limits.					
B.5.5	Free shipping for a day creates an urge in me to make a purchase instantly.					
B.5.6	Flash sales (with limited period or limited quantity) induce me to make purchase immediately.					

C. Website related factors

Website related factors comprises of various attributes of the website that may have a significant influence on the buying behaviour of the consumer. This construct is further bifurcated into 3 sub constructs.

C.1 Website aesthetics

The aesthetics of the website includes the fonts, colours, images, layout, background etc of the website. For a website to stand out, it should be aesthetically appealing.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
C.1.1	The pleasing aesthetics of the website make me visit the website more often.					
C.1.2	A website rich in graphics makes the interaction experience more pleasing.					
C.1.3	The aesthetics of the website affect my mood.					
C.1.4	I judge the quality of the website through its aesthetics.					
C.1.5	Pleasant website colours elicit the feelings of relaxation in me.					

C.2 Security and privacy

Kolsaker and Payne (2002) states that security reflects perceptions regarding the reliability of the payment methods used and the mechanisms of data transmission and storage. Whereas, privacy affects aspects such as the obtaining, distribution or the non-authorized use of personal information (Wang et al., 1998).

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
C.2.1	I use the websites only if I am sure that they have robust security policies.					
C.2.2	I make sure of the identity of the shopping website before making any orders.					
C.2.3	I only shop at those websites, which collect only limited and necessary personal details.					
C.2.4	I feel safe while dealing with the shopping websites.					
C.2.5	Transaction security is an important concern for me while shopping online.					
C.2.6	I am concerned that the information I submit on the internet could be misused.					
C.2.7	I am concerned that a person can find the private information about me on the internet.					

C.3 Convenience

Convenience refers to the ease of use in doing online shopping that saves a lot of effort and time in the whole transaction. It includes the proper categorization of the products, reliable product information, product exchange and return services, different payment methods and online forums for the consumers to share product information and (Chen, 2010).

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
C.3.1	I shop more often at the websites that are easy to use.					
C.3.2	I always look for the website having easy payment method.					
C.3.3	Easy product exchange and return services of the shopping website make me shop more frequently.					

C.3.4	I usually get attracted to the shopping websites having easy search options.					
C.3.5	Shopping websites having good product categorization seem attractive to me.					
C.3.6	I like to shop at websites where I can quickly navigate between webpages internally on the site.					

D. Situational factors

Situational factors basically talk about the circumstances of the consumer while shopping that have an influence on the buying behaviour. This construct is further sub divided into 3 sub-constructs.

D.1 Money availability

Money availability signifies the monetary situation of the consumer.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
D.1.1	I always think before spending the money.					
D.1.2	I focus on saving money rather than satisfying my desire to shop.					
D.1.3	I always make a budget for shopping.					
D.1.4	I don't think about the money while shopping.					
D.1.5	I always have enough money for shopping.					

D.2 Time availability

This factor conveys the effect of time availability with the shoppers on their purchase decision.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

D.2.1	I am able to make purchase anytime, so I tend to buy more spontaneously.					
D.2.2	I like to browse online and make purchases (if any) after my working hours.					
D.2.3	I usually have limited time for shopping.					
D.2.4	I generally have enough time to browse online shopping sites and search for products I need.					

D.3 Credit card usage

This sub-construct studies the effect of credit card usage on the buying behaviour of the consumer.

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
D.3.1	I care less about how much I spend when I use my credit card, so I tend to buy more spontaneously.					
D.3.2	I generally pay through credit cards.					
D.3.3	I am more impulsive when I shop with credit card.					
D.3.4	I rarely go over my available credit card limit.					
D.3.5	I worry how I will pay off my credit card debt.					
D.3.6	I have too many credit cards.					

E. Impulse buying tendency

Impulse buying tendency is dispositional factor that varies from person to person and tends to have a significant impact on the buying behaviour of the consumer (Amos et al., 2014).

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
E.1	I buy products to get satisfaction.					

E.2	I can't control myself to buy the products.					
E.3	I have strong feelings for buying the product.					
E.4	When I shop, I usually buy the products that I didn't plan to buy.					
E.5	When I see a product that catches my eye, I will immediately buy the product without considering anything.					
E.6	It feels great to make the purchases spontaneously.					

F. Impulse buying behaviour

Impulse buying is the sudden and persistent urge to buy something immediately (Rook, 1987).

Code	Items	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
F.1	I make unplanned purchases.					
F.2	My purchase decisions are spontaneous.					
F.3	I cannot resist my urge to buy something.					
F.4	The pleasure of online shopping prompts me to make impulsive, sudden shopping.					
F.5	I tend to buy things that I have no desire to buy online.					

Journal Publications

Sr. No.	Title of the Paper	Journal	Indexation	Impact Factor
1.	Influence of website quality on online impulse buying behaviour: a systematic review of literature	Marketing Intelligence and Planning	ABDC 'A' and SSCI	3.6
2.	Unveiling the dynamics that shape online impulse buying behavior	Journal of Research in Interactive Marketing	ABDC 'B' and SSCI	9.6
3.	Influence of promotional factors on online impulse buying: exploring the mediating role of impulse buying tendency	Current Psychology	SSCI	2.5

Conferences Attended

Sr. No.	Title of the Paper	Year	Name and Place of Conference
1.	The impact of online shopping festival and product recommendations on online impulse buying behavior.	2024	3rd International Marketing Conference; IIM Shillong.
2.	Investigating the influence of promotional elements on online impulse buying behavior.	2024	Management Education and Research Colloquium, 2024; IIM Kashipur.

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