



A Theoretical Framework for Understanding the Factors Influencing the Purchase Intention and Actual Usage in E-Retailing

Shivali Soni, Professor Trupti Dave

Department of Management Studies, Barkatullah University, Bhopal

Abstract. This study presents a theoretical framework for understanding the factors influencing the purchase intention and actual usage in e-retailing. The model integrates key constructs from the Technology Acceptance Model (TAM) and behavioral intention theories, proposing that perceived usefulness and perceived ease of use significantly impact users' attitude towards the payment system. This attitude then influences their purchase intention. The framework also incorporates perceived risk and trust as crucial determinants, with perceived risk negatively affecting purchase intention and trust having a positive effect. Ultimately, purchase intention is posited to drive the actual usage in e-retailing. This comprehensive framework provides valuable insights into the psychological and perceptual factors in e-retailing, offering a robust basis for further empirical research and practical application in enhancing user acceptance of new payment systems. By examining these interrelationships, the framework provides a comprehensive lens through which to analyze how these psychological and perceptual variables impact consumer decision-making and technology adoption in the e-retail.

Index Terms- e-retail, purchase intention, actual usage, technology acceptance model

I. Introduction

The rapid evolution of the retail sector has been significantly influenced by advancements in technology, necessitating a deeper understanding of the factors that drive consumer behavior in this context [1]. This study introduces a theoretical framework aimed at elucidating the determinants of purchase intention and actual usage of retail technologies. Central to this framework are constructs derived from the Technology Acceptance Model (TAM), which posits that Perceived Usefulness and Perceived Ease of Use shape consumers' Attitude towards a technology. This attitude, in turn, influences their Purchase Intention. Additionally, the model incorporates Perceived Risk and Trust as critical factors; perceived risk potentially deters purchase intentions, while trust can enhance them. By examining these interrelationships, the framework provides a comprehensive lens through which to analyze how these psychological and perceptual variables impact consumer decision-making and



technology adoption in the e-retail. This understanding is crucial for retailers and technology developers aiming to foster higher adoption rates and improve user experiences, ultimately driving sales and customer satisfaction.

Central to the framework derived from the Technology Acceptance Model (TAM), which posits that perceived usefulness and perceived ease of use shape consumers' Attitude towards a technology [2]. This attitude, in turn, influences their Purchase Intention [3].

However, the decision-making process in e-retail is multifaceted and extends beyond the traditional TAM constructs [4]. Therefore, this framework also incorporates Perceived Risk and Trust as critical factors. Perceived risk, which includes concerns about security, privacy, and potential financial loss, can significantly determine purchase intentions [5]. On the other hand, trust, encompassing the reliability and integrity of the technology and the entity providing it, can enhance consumers' willingness to engage and transact using the technology [6].

By examining these interrelationships, the framework provides a comprehensive lens through which to analyze how these psychological and perceptual variables impact consumer decision-making and technology adoption in the e-retail. This understanding is crucial for retailers and technology developers aiming to foster higher adoption rates and improve user experiences, ultimately driving sales and customer satisfaction. As the e-retail landscape becomes increasingly digital, insights from this framework can guide strategic decisions, from technology design and implementation to marketing and customer support, ensuring that innovations not only meet technical requirements but also align with consumer expectations and concerns.

II. Technology Acceptance Model

The rapid evolution of e-commerce has transformed the landscape of global commerce, encompassing business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C) transactions. As these models continue to proliferate, understanding the predictors of purchase intention within these different e-commerce contexts is crucial for businesses and researchers alike [7]. The Technology Acceptance Model (TAM), originally developed by Davis (1989), provides a robust theoretical framework for examining how users come to accept and use technology. TAM posits that perceived ease of use and perceived usefulness are the primary determinants of technology adoption [8]. However, in the dynamic and trust-sensitive environment of e-commerce, integrating the concepts of trust and perceived risk into TAM can offer a more comprehensive understanding of purchase intentions [9]. In B2B transactions, businesses engage with other businesses, often involving large-scale, high-value exchanges. Trust is a critical factor in B2B e-commerce, where long-term relationships, reliability, and the quality of service significantly impact purchase decisions. Businesses must trust that their partners will



deliver as promised, maintain data security, and provide consistent quality. Perceived risk, including concerns about transaction security and vendor reliability, can deter purchase intentions if not adequately managed [10]. Understanding how trust and perceived risk influence purchase intentions in B2B e-commerce is crucial for developing effective strategies to foster positive business relationships and drive transactions.

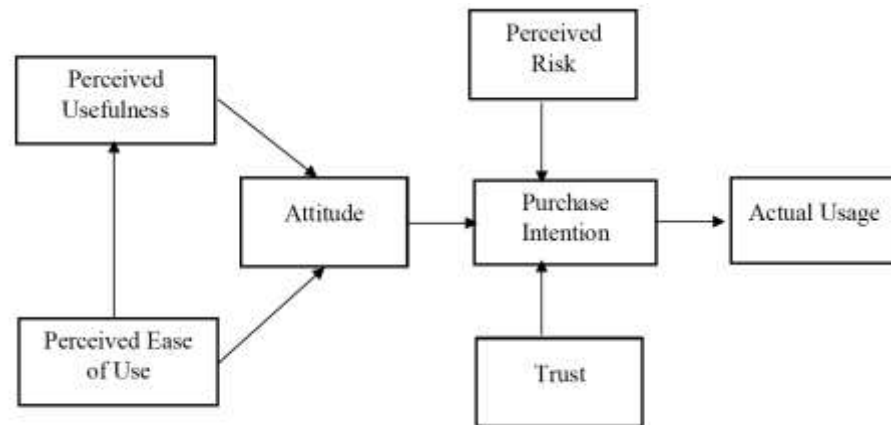


Fig. 1: The study Framework

B2C e-commerce involves transactions between businesses and individual consumers. In this context, perceived ease of use and perceived usefulness remain important, but trust and perceived risk also play vital roles [5]. Consumers must trust that the business will protect their personal and financial information, deliver products as advertised, and provide satisfactory customer service. High perceived risk, such as fears of fraud or data breaches, can significantly hinder purchase intentions. Integrating trust and risk into the TAM framework helps to better understand consumer behavior and develop strategies to enhance consumer confidence and reduce perceived risks [11].

C2C e-commerce involves transactions between consumers, often facilitated by platforms like eBay, Craigslist, or peer-to-peer marketplaces. Trust is particularly critical in C2C transactions, where buyers and sellers may have limited prior interactions and must rely on platform mechanisms such as ratings, reviews, and dispute resolution processes. Perceived risk is also heightened in C2C e-commerce, where concerns about product authenticity, transaction security, and seller reliability can influence purchase intentions. Incorporating trust and perceived risk into the TAM framework allows for a more nuanced understanding of how these factors affect C2C purchase behaviors and the effectiveness of platform safeguards [12].

The integration of trust and perceived risk into the Technology Acceptance Model enhances its applicability to e-commerce by addressing the psychological and relational factors that influence purchase intentions [11]. Trust is defined as the willingness to be vulnerable to the actions of another party based on positive



expectations of their behavior. In e-commerce, trust reduces uncertainty and facilitates positive transaction outcomes. Perceived risk, on the other hand, involves the potential negative outcomes that a buyer might face in a transaction, such as financial loss, fraud, or product dissatisfaction [13].

By incorporating trust and perceived risk into TAM, we can better understand the determinants of purchase intention across different e-commerce models. For example, a buyer's intention to purchase may be positively influenced by high perceived usefulness and ease of use, but negatively impacted by high perceived risk unless mitigated by strong trust [14]. This integrated model provides a more comprehensive framework for predicting and enhancing purchase intentions in e-commerce settings. Understanding the predictors of purchase intention in B2B, B2C, and C2C e-commerce using an integrated TAM framework has significant implications for both research and practice. For researchers, it opens avenues to explore how different factors interact to influence purchase behaviors across various e-commerce contexts. For practitioners, it offers insights into developing strategies that enhance trust and reduce perceived risk, thereby fostering stronger purchase intentions and improving overall transaction success [15].

Overall, integrating trust and perceived risk into the Technology Acceptance Model provides a robust approach to studying purchase intentions in B2B, B2C, and C2C e-commerce. This comprehensive perspective is essential for developing effective strategies to enhance user acceptance, build consumer confidence, and drive e-commerce growth across diverse transactional models.

III. Literature Review

According to Pruthi (2023), the Indian retail business has undergone a significant transformation in recent decades due to shifting client preferences and increasing expectations. As consumers become increasingly value-conscious and have a wider range of options to choose from, the sector is becoming more competitive. The full extent of investigating customers' assessment of online purchasing within the context of multichannel retail remains unexplored. The study conducted by Adapa et al. (2020) employs intelligent retail technologies to investigate the perceived value of purchasing. This has an impact on customer loyalty to stores and the adoption of intelligent retail technology. This study proposes that consumer innovation acts as a moderator for these links.

According to Alamsyah and Syarifuddin (2021), customer trust plays a crucial role for companies, especially when it comes to organic goods, which have distinct qualities compared to regular goods. This study examined the influence of a retailer's reputation as a seller of organic products on customer trust, social responsibility, and perceived value. The study conducted by Noor et al. in 2023 E-commerce is seeing tremendous global growth, offering e-marketers numerous developing prospects. E-marketers acquire knowledge about the variables and aspects that have the potential to influence consumers' purchasing behavior and the



connections between these factors. Subsequently, they can enhance their marketing efforts to effectively convert prospective clients into engaged ones and retain existing online customers. The growing utilization of the Internet by clients in Pakistan presents promising opportunities for online retailers. This paper examines the considerations that online shoppers from Peshawar take into account when making purchases online.

Naveen and Subudhi (2023) The retail industry is characterized by its dynamic and captivating nature. The retail industry has a vast amount of research literature that explores its evolution. This study has utilized a review research design to examine the retailing literature from the past two decades. The list of studies was extracted using the bibliometric database Scopus. The primary elements examined in this study are service quality (SQ), customer satisfaction (CS), and customer delight (CD).

Kushwaha (2022) Despite the rapid expansion of e-commerce and internet retailing, offline retailing continues to experience significant growth. The majority of large retail companies have acquired a substantial portion of the market in major cities and are keen to take advantage of being the first to enter new markets. They are now expanding into previously untapped smaller cities in order to establish a strong presence and build customer loyalty. Due to their increased wealth and consumer-oriented mindset, tier-II and tier-III cities are becoming appealing markets. Malekpour (2022) In light of the rapid advancements in technology within the retail industry, researchers are actively seeking to acquire a comprehensive understanding of the characteristics of emerging technology in retailing. Additionally, they are investigating the effects of new technology on this sector. In the present era, brick-and-mortar stores face significant obstacles posed by e-commerce platforms. To address these issues, the implementation of sophisticated and engaging retail technology can be important in crafting a distinctive and memorable in-store atmosphere. The study will primarily examine customers' perspectives on new technologies, their preferred channels for acquiring beauty items, and the influence of these technologies on customer behavior.

In a study conducted by Onikoyi (2022), the author investigated the influence of e-commerce applications on the non-financial performance of specific online retail businesses in Lagos State, Nigeria. The study focused on Jumia and Konga, which are e-retail stores. The study has three distinct objectives: to analyze the impact of electronic advertising on customers' patronage in the chosen online retail enterprise, to assess the influence of electronic customer service support system on customers' satisfaction in the selected online retail enterprise, and to evaluate the effect of e-order and delivery on customers' satisfaction in the selected online retail stores. Kumar (2022) The Indian retail industry is highly active and characterized by a quick pace. It constitutes more than 10 percent of the nation's Gross Domestic Product (GDP). E-commerce is likely causing the most significant disruption in the retail sector. The Reports of CII and Wazir advisors (2018) provide a comprehensive view on the role of organized retailing to the growth of the retail sector in India. By 2025,



the growth of internet shopping is projected to increase by a factor of seven. In recent years, physical shops have been seeing a progressive decline in their revenues and profit margins due to increasing competition from online retailers.

Begum (2022) A vast number of small merchants in India, along with a far larger workforce employed by them, rely on the conventional method of selling merchandise and operating physical stores as their primary source of income. Although the offline retail market has traditionally been the dominant force in India's retail industry and still holds the largest share, E-Retail, which refers to the online sale of retail goods and services, is rapidly gaining ground. Projected to experience an annual growth rate of 25-30%, it is poised to become the dominant force in the retail industry in India. The current study seeks to examine the issue from both the standpoint of retailers and consumers. Additionally, it seeks to examine if merchants are doing any corrective actions to address the issue.

Kumar and Ayodeji (2021) introduced models to facilitate consumer activation and customer retention. The success of an e-commerce store may be attributed to five key factors: service quality, system quality, information quality, trust, and net benefit. The study also examined the elements that impact the intention of online customers to make repeat purchases, using the Means End Chain theory (MEC) and Prospect theory as a framework. Drave and (2020) Technological improvements have created new opportunities for organizations. Mobile technology have provided ambitious companies with a new means to engage with constituents. Traditional retailers frequently allocate significant resources to technology and infrastructure, but the current circumstances highlight the necessity to alter decision-making patterns. Several technology adoption models (TAM) have been utilized in the past to facilitate the integration of new technologies with existing systems. Katta and Patro The year 2020. Online commerce has emerged as a crucial application of technology in recent years, thanks to the internet's advancements and increased accessibility. internet shopping is a prominent component of internet retailing and has become a crucial part of consumers' lifestyle. In addition to numerous benefits, consumers experience several forms of perceived hazards when engaging in online purchasing. Hence, it is imperative to ascertain the variables that influence consumers' assessment of value. This study experimentally investigates how customers' perception of the benefits and risks of online purchasing affects their perception of its worth.

The authors Jafarzadeh et al. published a paper in 2021. The e-commerce retail industry has experienced exponential expansion since the late 1990s, and its popularity and prevalence have further increased due to the COVID-19 problem. However, when e-retailing has difficulties, particularly when the business is facing pressure, it poses a significant issue that negatively affects customers' mood and behavioral intention. Haider is a film released in 2020. Currently, digital consumers exhibit progressively intricate purchasing patterns. Consumers have the ability to utilize many channels for shopping and seamlessly transition between them, resulting in the adoption of omnichannel shopping behavior. In the past, shoppers utilized



physical retail outlets to make their purchases. Currently, individuals have access to many digital devices, such as mobile phones and desktop computers, which they use to explore numerous options and make informed purchasing decisions.

IV. Conclusion

This study introduces a robust theoretical framework designed to elucidate the factors influencing purchase intention and actual usage within the e-retail. By synthesizing constructs from the TAM and behavioral intention theories, the framework highlights the pivotal roles of perceived usefulness and perceived ease of use in shaping users' attitudes towards payment systems. These attitudes are shown to significantly impact purchase intentions, which in turn drive actual usage.

The inclusion of perceived risk and trust as critical determinants adds depth to the model, recognizing that perceived risk negatively affects purchase intention while trust exerts a positive influence. This nuanced understanding underscores the importance of mitigating perceived risks and fostering trust to enhance consumer acceptance of new payment technologies.

This comprehensive framework offers valuable insights into the psychological and perceptual factors at play in the e-retail. It serves as a foundational tool for both empirical research and practical applications aimed at boosting user acceptance and technology adoption. By exploring the interconnections among these variables, the framework provides a detailed lens through which to understand consumer decision-making processes and the dynamics of technology usage in e-retail environments. Consequently, this study not only advances academic discourse but also provides actionable guidance for practitioners seeking to optimize payment system adoption and improve consumer experiences in the e-retail.

References

1. Jafarzadeh, H., Tafti, M., Intezari, A., & Sohrabi, B. (2021). All's well that ends well: Effective recovery from failures during the delivery phase of e-retailing process. *Journal of Retailing and Consumer Services*, 62, 102602.
2. Haider, S. W., Guijun, Z., Ikram, A., & Anwar, B. (2020). Consumers' device choice in e-retail: Do regulatory focus and chronotype matter?. *KSII Transactions on Internet & Information Systems*, 14(1).
3. Katta, R. M. R., & Patro, C. S. (2020). Consumers' perceived value in internet shopping: an empirical study. *International Journal of Customer Relationship Marketing and Management (IJCRMM)*, 11(2), 17-36.
4. Drave, V. A., & Sharma, R. R. K. Internet of Things for Different Types of Retail Formats.
5. Kumar, V., & Ayodeji, O. G. (2021). E-retail factors for customer activation and retention: An empirical study from Indian e-commerce customers. *Journal of Retailing and Consumer Services*, 59, 102399.
6. Begum, N. S. (2022). A Study On The Impact Of E-Retail Business On Small Traditional Retail Shops In The Metropolitan City Of Guwahati, Assam. *Journal of Survey in Fisheries Sciences*, 149-175.



7. Kumar, R. S. (2022). Buyer Behaviour Towards Online Grocery Shopping In Hyderabad City--An Empirical Study. *Proteus*, 13(11).
8. Onikoyi, I. A., Babatunde, B. O., & ODEH, C. D. (2022). Impact of E-Commerce Applications on Non-Financial Performance of Selected Online Retail Enterprises in Lagos State, Nigeria. *The Journal of Accounting and Management*, 12(3).
9. Malekpour, M. (2022). Disruptions in Iranian Beauty Retail through Digital Transformation. *ESIC Digital Economy and Innovation Journal*, 1(2), e052-e052.
10. Kushwaha, D. W. (2022). What Drives Customers to Shop Offline in Tier II & Tier III Cities?. Available at SSRN 4205895.
11. Naveen, L., & Subudhi, R. N. (2023). Retailing Narrative: A Systematic Literature Review and Outlook for Further Research. *Handbook of Research on the Interplay Between Service Quality and Customer Delight*, 314-336.
12. Noor, N., Yousaf, S., Amin, K., Ahmad, I., & Hussain, S. S. (2023). Consumer's Perception towards Website Factors for Online Shopping and its Effect on Buying Behavior in Peshawar. *Journal of Social Sciences Review*, 3(2), 79-92.
13. Alamsyah, D. P., & Syarifuddin, D. (2021). Store image: Mediator of social responsibility and customer perceived value to customer trust for organic products. In *IOP Conference Series: Materials Science and Engineering* (Vol. 288, No. 1, p. 012045). IOP Publishing.
14. Pruthi, A. (2023). A Study of Customer Value Proposition and Behavioural Intentions across Offline and Online Retailing.
15. Adapa, S., Fazal-e-Hasan, S. M., Makam, S. B., Azeem, M. M., & Mortimer, G. (2020). Examining the antecedents and consequences of perceived shopping value through smart retail technology. *Journal of Retailing and Consumer Services*, 52, 101901.