

Impact Of Influencing Factors On Consumer Buying Behaviour: An Analysis

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ABSTRACT

The e-commerce industry is characterized by rapid transformation, and understanding the determinants of online buying behavior is crucial for businesses and policymakers. This study investigates the influence of demographic characteristics, namely age, gender, and city of residence, on various facets of online purchasing behavior, including the importance attached to convenience, product variety, price comparison, and user reviews. Through a comprehensive analysis of data collected from a diverse group of online shoppers, our research offers insights into the distinct preferences and priorities exhibited by different demographic segments. Key findings reveal that age plays a consistent and significant role, with younger consumers placing a higher emphasis on convenience, product variety, and price comparison. Gender, on the other hand, demonstrates limited influence, except for a marginal effect on the importance of user reviews. Interestingly, city of residence did not emerge as a significant predictor of online buying behaviour. These findings have practical implications for businesses seeking to tailor their marketing strategies, website design, and product offerings to cater to diverse consumer needs. Policymakers can also utilize these insights to inform consumer protection measures and regulations in the ever-evolving e-commerce landscape. As the digital marketplace continues to evolve, ongoing research and adaptation are crucial to staying attuned to shifting consumer behavior. This study contributes to the broader understanding of the factors that shape online buying decisions and provides a foundation for future research in this dynamic field.

Keywords: Online Buying Behaviour, Demographic Characteristics, E-Commerce, Consumer Preferences, and Digital Marketplace.

I. INTRODUCTION

E-commerce, or electronic commerce, is the buying and selling of goods and services over the internet. It has revolutionized the way we shop, offering convenience, personalization, and a wider selection of products and services than traditional brick-and-mortar stores. (Daley & Koss, 2022). The rise of e-commerce has created new online brands, marketplaces, revenue streams for publishers and social media platforms, and a sector of vendors that serve e-commerce businesses. It has also transformed the shopping experience, allowing consumers to buy products from home with a click or voice command and have them delivered quickly. About 20% of all retail purchases are now made online, totalling over \$1 trillion in sales. This figure is expected to reach 25% by 2026. (Daley & Koss, 2022). The impact of e-commerce on consumer buying behavior has been significant. A study found a statistically significant e-commerce impact on consumer behavior. The effect of e-commerce on consumer behavior increased through mediation in fintech. The study recommended the necessity of continuing to enhance the dimensions of e-commerce by spreading awareness of e-commerce, as well as continuing to pay attention to and adopt financial technology because of its direct positive impact on consumer buying behaviour (Alshweesh & Bandi, 2022). During the COVID-19 crisis, consumer behavior and purchasing habits fundamentally changed. This paper examined the effect the

COVID-19 crisis had on digital consumer behavior and discussed factors affecting online shopping and the latest trends in e-commerce in the Czech Republic (Jílková & Králová, 2021).

STATEMENT OF THE PROBLEM: In the rapidly evolving landscape of e-commerce, understanding the factors that influence online buying behavior is essential for businesses and policymakers. Demographic characteristics, such as age, gender, and city of residence, are often considered crucial determinants of consumer preferences and priorities. However, there is a need to empirically examine the extent to which these demographic factors impact various aspects of online buying behavior, including convenience, product variety, price comparison, and user reviews.

PURPOSE OF THE STUDY: The purpose of this study is to explore and understand the impact of the evolution of e-commerce on consumer buying behavior. The study aims to:

- Analyse how the shift from traditional brick-and-mortar stores to online shopping platforms has changed the way consumers make purchasing decisions.
- Investigate the role of various factors such as convenience, product variety, price comparison, and user reviews in influencing online buying behavior.
- Understand the demographic and psychographic characteristics of online shoppers and how these influence their buying behavior.
- Provide insights to businesses and policymakers on how to better cater to the changing needs and preferences of online consumers.

Through this research, we aim to contribute to the existing body of knowledge in the field of e-commerce and consumer behavior, and provide actionable insights for businesses to improve their online strategies and customer engagement.

RESEARCH QUESTIONS: The research questions this study aims to address are:

1. How does age influence online buying behavior in terms of convenience, product variety, price comparison, and user reviews?

Sub-question 1: Do younger consumers (18-24 and 25-34 age groups) prioritize convenience, product variety, and price comparison more than older consumers (35-44 age group)?

Sub-question 2: How does the influence of age vary across different aspects of online buying behavior?

2. To what extent does gender affect online buying behavior with regard to convenience, product variety, price comparison, and user reviews?

Sub-question: Is there a significant gender-based difference in the importance placed on these factors in online shopping decisions?

3. Does the city of residence impact online buying behavior, specifically concerning convenience, product variety, price comparison, and user reviews?

Sub-question: Are there significant variations in online buying behavior based on consumers' city of residence, and how do these variations manifest in terms of the studied factors?

4. What are the implications of these demographic influences on businesses and policymakers operating in the e-commerce sector?

Sub-question 1: How can businesses tailor their marketing strategies, website design, and product offerings based on the identified demographic preferences?

Sub-question 2: How can policymakers use these findings to develop regulations and policies that enhance consumer protection and transparency in online commerce?

5. How can ongoing research and adaptation inform our understanding of online buying behavior as the e-commerce landscape continues to evolve?

Sub-question: What future research avenues could further deepen our insights into the dynamic nature of consumer behavior in the digital marketplace?

These research questions aim to explore the multifaceted relationship between demographic characteristics and online buying behavior, shedding light on the factors that shape consumer preferences in the digital age and providing valuable guidance for businesses and policymakers in meeting the changing needs and expectations of online consumers.

II. LITERATURE REVIEW

EVOLUTION OF E-COMMERCE: E-commerce, a form of business performed online or over the internet, has seen significant evolution over the past few decades (Marfice, 2023) (Bhalla, 2018). It started approximately 40 years ago as a standard exchange of business documents such as orders or invoices from suppliers and business customers (Bhalla, 2018). The history of e-commerce is closely related to the history of the internet, and online shopping only became possible when the internet was opened to the public in 1991 (Bhalla, 2018). From its humble beginnings in the 1970s, e-commerce has evolved to become one of the most popular ways people shop (Marfice, 2023). In just the last 50 years, retail has made leaps and bounds into the digital age¹. Major innovations to the industry came almost yearly as we entered the 2000s. In just the last decade, e-commerce has exploded in both growth and popularity (Marfice, 2023). In 2020, global e-

commerce sales topped \$4.13 trillion, an 18 percent increase from 2019 (Marfice, 2023). In 2021, more than 2 billion people regularly made e-commerce purchases worldwide, and mobile e-commerce has continued to grow — nearly 73 percent of total sales took place on mobile devices in 2021 (Marfice, 2023). The rapid growth of the e-commerce sector has had a huge impact on consumer buying behaviour (ESW, 2022) (Urne & Aggrawal, 2020). Shopping opportunities have increased and customers have more convenient options. The biggest impact e-commerce has had on consumer shopping habits is that consumers can shop from anywhere, anytime. They no longer have to wait until store hours to make a purchase (ESW, 2022). Mobile commerce has blurred the line between the physical store and the online experience (ESW, 2022). By 2025, mobile commerce sales are projected to reach \$728.28 billion and make up 44.2% of retail commerce sales in the US (ESW, 2022). The rise of mobile shopping has blurred the line between the physical store and the online experience (ESW, 2022). The evolution of e-commerce has significantly impacted consumer buying behaviour, leading to a shift in the way consumers shop. As technology continues to evolve, it is expected that e-commerce will continue to grow and further influence consumer buying behaviour. The future of e-commerce is likely to see further integration of online and offline shopping experiences, with a focus on providing consumers with a seamless shopping experience.

PREVIOUS STUDIES ON CONSUMER BUYING BEHAVIOUR: The literature on consumer buying behavior in the context of e-commerce is vast and varied. Here are some key studies that have contributed to our understanding of this topic:

IMPACT OF E-COMMERCE ON CONSUMER BUYING BEHAVIOUR: A REVIEW OF EXISTING LITERATURE: This study by Amoghsiddhi Urne provides a comprehensive review of the existing literature on the impact of e-commerce on consumer buying behavior. The research focuses on the status of e-commerce in India, e-commerce and technology adoption, the socio-economic impact of e-commerce, e-commerce and consumer buying decision making, and e-commerce benefits and its success (Urne & Aggrawal, 2020).

CUSTOMER PURCHASE BEHAVIOR PREDICTION IN E-COMMERCE: A Conceptual Framework and Research Agenda: This paper presents a systematic literature review of recent research dealing with customer purchase prediction in the E-commerce context. The main contributions are a novel analytical framework and a research agenda in the field (Cirqueira, Hofer, Nedbal, Helfert, & Bezbradica, 2020).

DRIVERS OF SHOPPING ONLINE: A LITERATURE REVIEW: This research suggests that consumers' attitude toward Internet shopping and intention to shop online depends primarily on the perceived features of online shopping and on the perceived risk associated with online purchase (Machado, 2006).

A META-ANALYSIS OF ONLINE IMPULSIVE BUYING AND THE MODERATING EFFECT OF ECONOMIC DEVELOPMENT LEVEL: In this study, researchers have primarily explored the antecedents of online impulsive buying behaviour based on the Stimulus-Organism-Response (SOR) framework, and online impulsive buying is seen as the result of being exposed to a stimulus (Zhao, Li, Wang, Zhou, & Xin, 2022).

These studies provide a rich understanding of the various factors that influence consumer buying behavior in the context of e-commerce. However, as the field continues to evolve with technological advancements and changing consumer preferences, there is a need for ongoing research to keep pace with these changes.

THE RELATIONSHIP BETWEEN E-COMMERCE AND CONSUMER BUYING BEHAVIOUR: Following are some key studies that have contributed to our understanding of this topic:

E-COMMERCE: IT'S IMPACT ON CONSUMER BEHAVIOR: This paper presents the actuality of internet shopping in the case of India to explain the development of internet shopping and its impact on consumer behavior. The paper examines consumer behavior by questionnaires and discusses factors affecting online shopping and the latest trends in e-commerce (Mittal, 2013).

THE IMPACT OF ONLINE REVIEWS ON CONSUMERS' PURCHASING DECISIONS: This research identifies current research gaps and establishes the rationale for this research through a comprehensive literature review on key themes including online reviews, the impact of online reviews on purchasing decisions, and underlying processes including the level and credibility of product review information (Chen, Samaranayake, Xiong-Ying, Meng, & Lan, 2022).

CUSTOMER PURCHASE BEHAVIOR PREDICTION IN E-COMMERCE: A CONCEPTUAL FRAMEWORK AND RESEARCH AGENDA: This paper presents a systematic literature review of recent research dealing with customer purchase prediction in the E-commerce context. The main contributions are a novel analytical framework and a research agenda in the field (Cirqueira, Hofer, Nedbal, Helfert, & Bezbradica, 2020).

These studies provide a rich understanding of the various factors that influence consumer buying behavior in the context of e-commerce. However, as the field continues to evolve with technological advancements and changing consumer preferences, there is a need for ongoing research to keep pace with these changes.

III. METHODOLOGY

RESEARCH DESIGN: The research design for this study on the impact of e-commerce evolution on consumer buying behavior will be a combination of descriptive and explanatory research.

DESCRIPTIVE RESEARCH: The first part of the study involved a descriptive analysis of the e-commerce industry, its evolution, and the changing trends in consumer buying behavior. This will involve a comprehensive literature review, as well as the collection of primary data through surveys and interviews to understand the current state of consumer buying behavior in the context of e-commerce.

EXPLANATORY RESEARCH: The second part of the study involved explanatory research to understand the causal relationships between the various influencing factors and changes in consumer buying behavior. This involved the use of statistical analysis techniques to analyse the data collected and identify patterns and relationships.

DATA COLLECTION: The data for this study was collected through both primary and secondary sources. Primary data was collected through surveys and interviews with consumers who engage in online shopping. Secondary data was collected through a review of existing literature, industry reports, and online databases.

SAMPLING: The sample for this study was selected using a stratified random sampling technique to ensure a representative sample of online consumers across different demographics.

DATA ANALYSIS: The data collected was analysed using Microsoft Excel, SimpleR (Taboga, 2022). Descriptive statistics was used to summarize the data, while inferential statistics was used to test hypotheses and identify relationships between variables.

ETHICAL CONSIDERATIONS: All participants in this study were informed about the purpose of the research and their rights as participants. Their participation was voluntary, and all data was kept confidential and used solely for the purpose of this research.

This research design allows for a comprehensive understanding of the impact of e-commerce evolution on consumer buying behavior, providing valuable insights for businesses, policymakers, and researchers.

IV. DATA ANALYSIS

DEPENDENT VARIABLE: CONVENIENCE (INFLUENCE): The analysis of the influence of demographic characteristics on convenience in online buying behavior revealed the following:

AGE GROUP: Younger age groups (18-24, 25-34) place significantly higher importance on convenience compared to the older age group (35-44). Age group is a statistically significant predictor of convenience influence, with p-values < 0.05.

GENDER: Gender does not have a significant impact on convenience influence, as the coefficient for "Gender = Male" is not statistically significant (p-value > 0.05).

CITY OF RESIDENCE: City of residence does not significantly predict convenience influence, as coefficients for all cities are not statistically significant (p-values > 0.05).

DEPENDENT VARIABLE: PRODUCT VARIETY (INFLUENCE): The analysis of the influence of demographic characteristics on the importance of product variety in online buying behavior revealed the following:

AGE GROUP: Younger age groups (18-24, 25-34) place significantly higher importance on product variety compared to the older age group (35-44). Age group is a statistically significant predictor of product variety influence, with p-values < 0.05.

GENDER: Gender does not have a significant impact on product variety influence, as the coefficient for "Gender = Male" is not statistically significant (p-value > 0.05).

CITY OF RESIDENCE: City of residence does not significantly predict product variety influence, as coefficients for all cities are not statistically significant (p-values > 0.05).

DEPENDENT VARIABLE: PRICE COMPARISON (INFLUENCE): The analysis of the influence of demographic characteristics on the importance of price comparison in online buying behavior revealed the following:

AGE GROUP: Younger age groups (18-24, 25-34) place significantly higher importance on price comparison compared to the older age group (35-44). Age group is a statistically significant predictor of price comparison influence, with p-values < 0.05.

GENDER: Gender does not have a significant impact on price comparison influence, as the coefficient for "Gender = Male" is not statistically significant (p-value > 0.05).

CITY OF RESIDENCE: City of residence does not significantly predict price comparison influence, as coefficients for all cities are not statistically significant (p-values > 0.05).

DEPENDENT VARIABLE: USER REVIEWS (INFLUENCE): The analysis of the influence of demographic characteristics on the importance of user reviews in online buying behavior revealed the following:

AGE GROUP: Younger age groups (18-24, 25-34) place significantly less importance on user reviews compared to the older age group (35-44). Age group is a statistically significant predictor of user reviews influence, with p-values < 0.05.

GENDER: Gender has a marginal impact on user reviews influence, as the coefficient for "Gender = Male" is marginally significant at the one-sided significance level (p-value < 0.05).

CITY OF RESIDENCE: City of residence does not significantly predict user reviews influence, as coefficients for all cities are not statistically significant (p-values > 0.05).

V. FINDINGS

The findings from the regression analysis of the four dependent variables (Convenience, Product Variety, Price Comparison, User Reviews) on online buying behavior in relation to demographic characteristics provide valuable insights into how various factors influence consumer behavior in the context of e-commerce. Here's a discussion of the key findings:

AGE GROUP INFLUENCE: Across all four dependent variables, age group consistently emerged as a significant predictor of online buying behavior. Younger age groups (18-24 and 25-34) consistently exhibited distinct preferences compared to the older age group (35-44). Younger consumers (18-24 and 25-34) placed a significantly higher importance on convenience, product variety, and price comparison. This indicates that younger individuals are more likely to prioritize ease of use, a wide selection of products, and finding the best deals when making online purchases. In contrast, the older age group (35-44) valued these factors less, suggesting that they might prioritize other aspects of their online shopping experience or have more established preferences.

GENDER INFLUENCE: The influence of gender on online buying behavior was generally not statistically significant across all four dependent variables, except for a marginal effect on User Reviews. For User Reviews, males showed a slightly higher influence compared to females. However, this effect was only marginally significant, suggesting that gender plays a minor role in influencing the importance of user reviews in the online shopping decision-making process.

CITY OF RESIDENCE INFLUENCE: City of residence did not significantly predict online buying behavior for any of the four dependent variables. Coefficients for all cities were not statistically significant. This suggests that the location of consumers, at least in the selected cities, does not play a significant role in shaping their preferences for convenience, product variety, price comparison, or user reviews in online shopping. Other factors, such as individual preferences, experiences, and cultural factors, might have a more prominent influence.

OVERALL IMPLICATIONS: These findings have practical implications for businesses and policymakers in the e-commerce sector. Understanding the strong influence of age group on consumer behavior is crucial for tailoring marketing strategies, website design, and product offerings to different age segments. Businesses can use this information to target younger consumers with convenience-focused features, extensive product catalogues, and pricing strategies that emphasize discounts and comparisons. Policymakers can use these findings to inform consumer protection measures and regulations, especially as they pertain to online shopping platforms and their advertising practices. This research highlights the significance of age group as a consistent and influential factor in shaping online buying behavior. While gender and city of residence do not play significant roles across the board, the age-related differences are essential considerations for businesses and policymakers seeking to better serve the diverse needs and preferences of online consumers in the evolving landscape of e-commerce.

VI. CONCLUSION

AGE IS A CRUCIAL DETERMINANT: Age group consistently emerged as a significant and influential factor in understanding online buying behavior. Younger consumers, specifically those in the 18-24 and 25-34 age groups, exhibited distinct preferences and priorities compared to the older 35-44 age group. Younger consumers place a higher emphasis on convenience, product variety, and price comparison. They are more likely to seek convenient shopping experiences, a wide range of product choices, and the best possible deals. In contrast, the older age group values these factors less, indicating that they might prioritize other aspects of their online shopping experiences or have more established preferences.

GENDER HAS LIMITED INFLUENCE: Gender, for the most part, did not significantly impact online buying behavior in this study. Gender differences were not statistically significant across all four dependent variables. The marginal effect observed for User Reviews, where males showed slightly higher influence, suggests that gender plays a minor role in the importance placed on user reviews in online shopping decisions.

CITY OF RESIDENCE DOES NOT SIGNIFICANTLY AFFECT BEHAVIOR: The city of residence did not emerge as a significant predictor of online buying behavior for any of the four dependent variables. Coefficients for all cities were not statistically significant. This suggests that consumers' location in the selected cities did not play a substantial role in shaping their preferences for convenience, product variety, price comparison, or user reviews in online shopping.

IMPLICATIONS FOR BUSINESSES AND POLICYMAKERS: Understanding the strong influence of age group on consumer behavior is critical for businesses in the e-commerce sector. It allows them to tailor their marketing strategies, website design, and product offerings to different age segments. Younger consumers represent a significant market segment that values convenience and variety. Businesses can use this information to target them with user-friendly interfaces, extensive product catalogues, and competitive pricing. Policymakers can consider these findings when developing regulations related to online commerce and consumer protection, especially concerning advertising practices and transparency.

ONGOING RESEARCH AND ADAPTATION: The e-commerce landscape continues to evolve with technological advancements, changing consumer preferences, and economic shifts. Therefore, ongoing research is essential to stay current and adapt strategies accordingly. Future studies may explore additional demographic characteristics, such as income levels and educational backgrounds, to gain a more comprehensive understanding of online buying behaviour. This study underscores the significance of age as a consistent and influential factor in shaping online buying behavior. While gender and city of residence have limited impacts, the age-related differences are crucial for businesses and policymakers seeking to cater to the diverse needs and preferences of online consumers in the ever-changing world of e-commerce.

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