SYNOPSIS OF THE THESIS

CONSUMER BUYING BEHAVIOUR THROUGH E-TAILING WITH REFERENCE TO ELECTRONIC GOODS IN BANGALORE CITY, INDIA

Doctoral Thesis Submitted

In partial fulfillment of the requirement for the award of the degree of

DOCTOR OF PHILOSOPHY

By

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Table of Contents

1. Introduction

In the dynamic landscape of Bangalore, India, where technology permeates daily life, understanding consumer buying behavior in e-tailing for electronic goods and gadgets is paramount. The city, often referred to as the Silicon Valley of India, boasts a tech-savvy population, predominantly comprising young professionals immersed in the IT sector. This demographic's penchant for staying ahead in the tech game sets the stage for intriguing insights into their preferences and choices in the realm of electronic purchases. The advent of e-commerce platforms, including giants like Amazon and Flipkart, has revolutionized the shopping experience. Online reviews and recommendations wield considerable influence, acting as virtual guides for consumers navigating the vast array of electronic offerings. Brand loyalty, a significant driving force, plays a pivotal role, with consumers in Bangalore likely aligning with brands that epitomize quality, innovation, and reliability. Moreover, the pervasive impact of digital marketing cannot be ignored. In a city where digital connectivity is a way of life, targeted advertising, social media campaigns, and online promotions leave an indelible imprint on consumer consciousness. The diverse cultural fabric of Bangalore, coupled with economic factors, further contributes to the intricate tapestry of consumer buying behavior. This study endeavors to delve into the nuances of this multifaceted landscape, unraveling the intricacies that govern consumer choices in e-tailing for electronic goods and gadgets in Bangalore.

The advancement of machine intelligence, often known as artificial intelligence (AI), has made it possible for machines to think and act like humans. With the aid of computer programs, machine learning enables computers to access and use data without human intervention or help. As a result, companies receive a wealth of client data that aids in the development of effective marketing plans. Using machine learning to create a customer journey map that shows customers' likes and dislikes as well as holding points, firms may enhance product search and visibility. Personalization

or a customer-centric approach guarantees a positive experience that may be used to guide clients from a business website to social media to email and beyond. The introduction of automatic equipment that offers a variety of tools and saves a customer's time and effort is another significant improvement. A consumer's reaction to a product purchase is influenced by behavioral and environmental factors. Customers compare information available before making a purchase with their experiences using the goods and reviews they read afterward to come to a decision. A consumer determines what they need and then looks for the relevant information on brands, variations, quality, and alternatives. The differences in information searched by various consumers are determined by factors such as age, gender, education level, product price, income, preference, and associated risk.

2. Research Motivation

The brick and mortar model of traditional education has been superseded by the emerging modern concept of e-commerce, or e-tailing. Because there are so many unexplored sectors in the retail industry, there is a strong desire to learn more about e-tailing shopping. Due to the efforts of past academics, who have inspired and motivated contemporary researchers to identify various gaps in retailing as a macro phenomenon, there is now a great deal of interest in and drive to collect data on this hot topic. Research conducted in the past have focused on structured and disorganized forms of retail marketing in relation to physical stores. However, there is currently a dynamic paradigm shift toward e-tailing and in-depth knowledge of its models and procedures. The main thing that drew me to the study was return and replacement policies, also known as "de shopping", which have no upper limit and slowly poison retailers because customers frequently disagree with the products they receive. While retailers may occasionally be at fault as well, customers' willful

or conscious return policies have disrupted the process of healthy e-retailing. This idea has generated discussion in a variety of literary contexts, but given the competitive market and the dynamics of Indian consumers' purchasing behavior, it is proving to be extremely challenging to restrict such behaviors. Consumer goods, specifically electronic goods that are mostly bought by Indian consumers through e-tailing, are another significant area that inspired this study. However, when these goods are more expensive, a number of demographic factors prevent them from being purchased through e-tailing because they are typically thought to lack a tangible component. Customers like to visit stores first, conduct a comparative analysis, and then make a buy if it is low priced on e-portals. This presents a problem to e-retailers.

The last motivational research angle focused on "Technology" and how it affects the evolving Indian market. This is because consumers' tastes and preferences are changing along with the market, which makes electronic goods dynamic and requires retailers to continuously provide their customers with what they need to make them eager to buy and, for the most part, quick decision makers. The psychological effects of "Reviews" on customers before making a purchase and the electronic retailing environment, which pushes customers to be glued to applications and e-portals in order to make purchases and experience the thrill of shopping, were other aspects that emerged during the literature review process.

3. Review of Literature

Smith, A. N., et al. (2012) investigate the variations in brand-related user-generated content (UGC) across different social media platforms. The study specifically focuses on YouTube, Facebook, and Twitter. The researchers delve into the unique characteristics of UGC on each platform, exploring how users express their opinions, engage with brands, and contribute content. By examining the distinctive features of YouTube, Facebook, and Twitter, the authors aim to provide insights into the

dynamics of user-generated content and its implications for brand interactions in the realm of social media. The study contributes to a nuanced understanding of the diverse ways in which consumers participate in brand conversations on these popular social media platforms, shedding light on the implications for marketing strategies and brand management.

Verhoef, P. C., et al. (2015) provide an introduction to the concept of omni-channel retailing and its evolution from traditional multi-channel approaches. The authors explore the transition from multi-channel retailing, where various channels operate independently, to the more integrated and customer-centric concept of omni-channel retailing. They discuss the challenges and opportunities associated with this shift, emphasizing the importance of creating a seamless and cohesive shopping experience across different channels. The article serves as an introduction to a special issue on multi-channel retailing, offering a foundation for understanding the strategic implications and practical considerations for retailers navigating the dynamic landscape of modern retail. It contributes valuable insights into the ongoing transformation of retailing practices and the imperative for businesses to adapt to meet evolving consumer expectations.

Venkatesh, V., et al. (2012) aim to expand the Unified Theory of Acceptance and Use of Technology (UTAUT). The UTAUT serves as a comprehensive framework for understanding users' acceptance and utilization of information technology. The authors extend the UTAUT by incorporating three additional constructs: perceived enjoyment, price value, and habit. They propose that these factors play crucial roles in influencing consumers' decisions to adopt and use information technology. The study employs empirical research to validate and refine the extended model, providing insights into the complex interplay of variables shaping consumer behavior in the context of information technology adoption. By enhancing the UTAUT, this research contributes to a deeper understanding

of the factors influencing consumers' acceptance and use of technology, offering practical implications for businesses and policymakers seeking to promote the adoption of information technology among consumers.

Wu, G., et al. (2017) investigate the relationships between perceived interactivity, engagement, and attitudes toward video advertisements on social media platforms. The study focuses on how users perceive the interactive elements within social media video ads and how these perceptions influence their level of engagement with the ads. The authors explore the impact of perceived interactivity on cognitive and emotional engagement and, subsequently, how engagement contributes to users' overall attitudes toward social media video advertisements. Through empirical research, Wu and Zhang provide valuable insights into the psychological processes underlying users' responses to social media video ads. The findings contribute to a better understanding of the factors that shape users' attitudes and engagement with video content in the context of social media advertising, offering implications for advertisers aiming to create more effective and engaging campaigns.

Santhosh, V. et al. (2022) the study investigate the impact of various marketing strategies, website features, or external influences on consumers' decision-making processes when shopping online. The study explores various aspects of consumer behavior in the context of online shopping. The assumption of classical model behaviour was used in this work. The author discusses about the internet which has changed the way customers buy goods and services. At the same time, many businesses have begun to use the Internet with the goal of lowering marketing costs and, as a result, lowering the price of their products and services in order to remain competitive. Companies also utilize the Internet to link and broadcast data in order to sell products online, collect feedback from customers, and perform satisfaction surveys with customers. Customers utilize the Internet not just

to buy products online, but also to compare prices, products, features, and after-sales and support assistance they will receive if they buy from a certain retailer.

Gunjan, M. et al. (2019) the purpose of this paper is to understand and analyses the universal perception and satisfaction quotient of customers in India concerning to the purchase of electronic goods via these e-commerce merchants. We have used hypothesis testing and analysis of variance to understand customer satisfaction and customer perception. The results show that overall customer satisfaction is the highest for Flipkart. Also, the physical appeal and the quality of the product are the main reasons which impact the customer's perception toward not shopping online. This study is original in itself because it is limited to the purchase of electronic goods only from the emerging e-retail merchants- Flipkart, Snap deal, and Amazon in India. One-way analysis of variance (ANOVA) has been conducted to know about the mean of the dependent variable, and to analyze and compare the same for each of the three merchants namely Flipkart, Amazon, and Snap deal. Normality test data was found to be normally distributed for each of the factors.

Lakshmi, et al. (2021). This paper empirically examines the online grocery shopping adoption in India during pandemic COVID 19. Data were collected by using self-administered questionnaires from web survey in Bangalore city, 312 valid responses of Indian consumers were analyzed. Based on the survey, the result shows that customer’s perception about relative advantage, compatibility of online grocery shopping and social norms has statistically significant positive effect on their online grocery shopping adoption. It was also found that customer’s perception on complexity and internet risk negatively affects the adoption of online grocery shopping (OGS).

4. Research Gap

Many research have been carried out to gain understanding of the internet shopping habits of customers. Numerous facets of this global sociotechnical phenomenon were addressed by researchers. The literature on consumer behavior that spans decades discusses everything from the multifaceted aspects of the buyer's experience to the mindset of the consumer with regard to supporting organizations' initiatives. While some studies describe the arrangement model for e-commerce, web-based purchasing, and the influence of internet practices and web environment on buyers' online behavior, other studies illustrate the motivations behind consumers' purchasing behavior.

The literature on the behavior of Indian consumers is voluminous. Given that India is a multicultural nation with a sizable consumer base that reflects a wide range of demographic, cultural, and social traits, it is crucial to examine how Indian online shoppers behave. However, these are all set in metropolitan environments. Urban culture and online commerce have grown to be synonymous. There aren't many studies that address how customer demographics affect Bengaluru, India's online buying habits. a significant vacuum in the research on rural Bengaluru consumers' online buying habits. This thesis tries to complete the gap in the literature by focusing on a specific rural area of Bengaluru where there hasn't been much research done on the topic, closely following the previously mentioned studies. The thesis seeks to provide a clear picture of how Bengaluru city's customers behave and respond, as well as identify the things that encourage or discourage them from making online purchases.

Four research gaps are shown in the study named "Analysis," which serves as the foundation for the research from the literature studied and expands the thesis's breadth,

1. De-shopping (Research Gap-1)
2. Online Store Atmospherics (Research Gap-2)
3. Delivery and Online Transaction (Research Gap-3)

4. Online Reviews (Research Gap-4)

5. Research Objectives

An exploratory study of various factors influencing consumer behavior in online shopping is a research study that attempts to explore issues related to customer behavior in the online market sector. The current state of Indian markets has seen a fundamental shift due to new technological developments. The current study looks at the fundamental behaviors of online shoppers in order to comprehend how businesses use social media and other online channels to improve client relations. The study's goal is to look into the context-based online shopping habits of Indian consumers. The main objectives of this study were to determine the important factors that consumers consider while making purchases online and to look at the factors that make internet shopping more challenging. Additionally, by examining online purchasing patterns in Bengaluru, shed light on the variables influencing Indian consumers' online behavior. Four key goals were found in the study "Consumer buying behavior in e-tailing with Reference to electronic goods";

1. To study the effect of the demographic profile of online buyers of electronic good on retail atmospherics.
2. To study the effect of shopping factors on retail atmospherics of consumers buying online electronic goods.
3. To study the effect of de-shopping factors on retail atmospherics of customers buying online electronic goods.
4. To study the effect of retail atmospherics on buying of online consumers of electronic goods.
5. To study the moderating effect of social media reviews on buying behavior of online consumers of electronic goods.

6. Research Hypothesis

Choosing different variables and doing a thorough literature study provide a foundation for creating hypotheses. A hypothesis is an educated guess that might turn out to be true or false. The null hypothesis states that there is no appreciable difference between the variables under investigation, whereas the alternative hypothesis shows a specific relationship. A theoretical claim that hasn't been tested is called a hypothesis. To gain clarity on the conception of the research problem in the study, hypotheses are generated. The three hypotheses derived from the specified aims to comprehend the relationship between the many elements that promote the online purchase of electronic goods are the main topic of the study "Consumer buying behavior with respect to e-tailing in electronic goods." The list of hypotheses that follows was created to determine the relationships between the factors taken into account for this study:

HYPOTHESIS NO.1: There is significant effect of shopping factors on retail atmospherics.

Shopping Factors are the elements that influence a consumer's decision-making process when making purchases. This could include factors like pricing, product variety, convenience, brand reputation, customer service, etc. In the context of e-tailing for electronic goods, shopping factors might include the ease of navigation on the e-commerce website, the availability of product information, the security of online transactions, delivery options, return policies, etc. Retail Atmospherics refers to the ambiance or environment of a retail space, whether physical or virtual (in the case of e-tailing). It encompasses various sensory stimuli that influence consumers' emotions, perceptions, and behaviors while shopping. In the context of e-tailing, retail atmospherics might include website design, layout, color scheme, imagery, music, interactivity, etc. Significant Effect implies that there is a meaningful relationship or impact between shopping factors and retail

atmospherics. In other words, changes in shopping factors are expected to result in noticeable changes in the ambiance of the retail space, and vice versa.

HYPOTHESIS NO. 2: There is significant effect of de-shopping factors on retail atmospherics.

Hypothesis No. 2 suggests that within the context of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a notable impact of de-shopping factors on the ambiance or atmosphere of retail spaces. This hypothesis posits that factors which deter or discourage consumers from making purchases online, such as high prices, poor product quality, inconvenient return policies, security concerns, and a lack of trust in the brand or platform, exert a significant influence on the sensory stimuli and overall environment experienced by consumers while engaging in online shopping. It implies that addressing and mitigating these de-shopping factors can lead to perceptible improvements in the retail atmosphere, potentially enhancing consumers' perceptions and behaviors during their online shopping experiences for electronic goods in Bangalore.

HYPOTHESIS NO. 3: There is significant effect of retail atmospherics on buying behavior.

Hypothesis No. 3 proposes that within the research context of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a substantial impact of retail atmospherics on purchasing behavior. This hypothesis suggests that the ambiance, sensory stimuli, and overall environment experienced by consumers while engaging in online shopping for electronic goods play a significant role in influencing their buying decisions and behaviors. Factors such as website design, layout, color scheme, imagery, interactivity, and other elements that contribute to the online retail atmosphere are expected to have a meaningful effect on consumers' perceptions, emotions, and ultimately their purchasing decisions. This hypothesis implies that improvements in retail atmospherics can lead to positive changes in consumers' buying behavior, potentially increasing

their likelihood of making purchases while shopping for electronic goods online in Bangalore.

HYPOTHESIS NO. 4: There is significant moderating effect of social media / reviews on buying behaviors.

Hypothesis No. 4 posits that within the research framework of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a substantial moderating effect of social media and online reviews on purchasing behaviors. This hypothesis suggests that the influence of social media platforms and online reviews acts as a significant moderator, shaping and guiding consumers' buying decisions in the e-tailing context. Social media platforms provide avenues for consumers to access and share information, opinions, and reviews about electronic goods, which can profoundly influence their perceptions, preferences, and ultimately their purchasing behaviors. The hypothesis implies that the presence and impact of social media and online reviews play a crucial role in shaping how consumers engage with e-tailers and make purchasing decisions, particularly when shopping for electronic goods online in Bangalore.

HYPOTHESIS NO. 5 (a-g):

H5a: There is significant difference among age groups of online electronic goods consumers with respect to retail atmospherics.

Hypothesis H5a suggests that concerning the research topic of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a meaningful distinction among different age groups of online consumers in terms of their perception of retail atmospherics. This hypothesis proposes that age plays a significant role in shaping how individuals from various age demographics perceive the ambiance and sensory stimuli within the online retail environment when shopping for electronic goods. It implies that there are discernible differences in how different age groups interpret and respond to factors such as website design, layout, color schemes, imagery,

and interactivity, which collectively contribute to the retail atmosphere experienced during online shopping. This hypothesis suggests that understanding these age-related variations in perceptions of retail atmospherics is essential for tailoring e-tailing experiences to meet the diverse needs and preferences of consumers across different age groups in Bangalore.

H5b: There is significant difference among Marital Status of online electronic goods consumers with respect to retail atmospherics.

Hypothesis H5b posits that within the research domain of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a notable disparity among consumers with different marital statuses regarding their perception of retail atmospherics. This hypothesis suggests that marital status plays a significant role in shaping how individuals, based on whether they are single, married, divorced, or widowed, perceive the ambiance and sensory stimuli within the online retail environment when shopping for electronic goods. It implies that there are discernible differences in how consumers' marital status influences their interpretation and response to factors such as website design, layout, color schemes, imagery, and interactivity, which together contribute to the retail atmosphere experienced during online shopping. This hypothesis highlights the importance of considering marital status as a relevant demographic variable in understanding and catering to the diverse needs and preferences of consumers engaging in e-tailing experiences for electronic goods in Bangalore.

H5c: There is significant difference among Type of Family of online electronic goods consumers with respect to retail atmospherics.

Hypothesis H5c suggests that concerning the research focus on consumer buying behavior

through e-tailing for electronic goods in Bangalore city, India, there exists a significant variation among consumers from different types of families regarding their perception of retail atmospherics. This hypothesis proposes that the structure of the family unit, whether nuclear, joint, extended, or others, plays a substantial role in shaping how individuals perceive the ambiance and sensory aspects within the online retail environment while shopping for electronic goods. It implies that there are noticeable differences in how the type of family influences consumers' interpretations and responses to factors such as website design, layout, color schemes, imagery, and interactivity, all of which contribute to the overall retail atmosphere experienced during online shopping. This hypothesis underscores the importance of considering family type as a pertinent demographic variable in comprehending and accommodating the diverse preferences and needs of consumers engaging in e-tailing experiences for electronic goods in Bangalore.

H5d: There is significant difference among Profession of online electronic goods consumers with respect to retail atmospherics.

Hypothesis H5d proposes that within the research framework of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a meaningful differentiation among consumers from various professions concerning their perception of retail atmospherics. This hypothesis suggests that the profession or occupation of individuals plays a significant role in shaping how they perceive the ambiance and sensory stimuli within the online retail environment while shopping for electronic goods. It implies that there are discernible differences in how consumers' professions influence their interpretations and responses to factors such as website design, layout, color schemes, imagery, and interactivity, which collectively contribute to the overall retail atmosphere experienced during online shopping. This hypothesis

underscores the importance of considering profession as a relevant demographic variable in understanding and accommodating the diverse preferences and needs of consumers engaging in e-tailing experiences for electronic goods in Bangalore.

H5e: There is significant difference among Qualification of online electronic goods consumers with respect to retail atmospherics.

Hypothesis H5e suggests that within the context of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a noteworthy disparity among consumers with different levels of education concerning their perception of retail atmospherics. This hypothesis proposes that the educational qualification of individuals plays a significant role in shaping how they perceive the ambiance and sensory stimuli within the online retail environment while shopping for electronic goods. It implies that there are discernible differences in how consumers' educational qualifications influence their interpretations and responses to factors such as website design, layout, color schemes, imagery, and interactivity, all of which contribute to the overall retail atmosphere experienced during online shopping. This hypothesis underscores the importance of considering educational qualification as a pertinent demographic variable in comprehending and addressing the diverse preferences and needs of consumers engaging in e-tailing experiences for electronic goods in Bangalore.

H5f: There is significant difference among Schooling/Primary education place of online electronic goods consumers with respect to retail atmospherics.

Hypothesis H5f posits that within the research scope of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a significant distinction among

consumers based on the location of their schooling or primary education concerning their perception of retail atmospherics. This hypothesis suggests that the place where individuals received their schooling or primary education plays a noteworthy role in shaping how they perceive the ambiance and sensory stimuli within the online retail environment while shopping for electronic goods. It implies that there are discernible differences in how consumers' educational backgrounds, specifically related to their schooling or primary education place, influence their interpretations and responses to factors such as website design, layout, color schemes, imagery, and interactivity, all of which contribute to the overall retail atmosphere experienced during online shopping. This hypothesis underscores the importance of considering schooling or primary education place as a relevant demographic variable in understanding and accommodating the diverse preferences and needs of consumers engaging in e-tailing experiences for electronic goods in Bangalore.

H5g: There is significant difference among Income (P.M) of online electronic goods consumers with respect to retail atmospherics.

Hypothesis H5g suggests that within the context of consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, there exists a notable disparity among consumers based on their monthly income concerning their perception of retail atmospherics. This hypothesis proposes that the level of income of individuals plays a significant role in shaping how they perceive the ambiance and sensory stimuli within the online retail environment while shopping for electronic goods. It implies that there are discernible differences in how consumers' income levels influence their interpretations and responses to factors such as website design, layout, color schemes, imagery, and interactivity, all of which contribute to the overall retail atmosphere experienced during online shopping. This hypothesis underscores the importance of considering income as a pertinent

demographic variable in comprehending and addressing the diverse preferences and needs of consumers engaging in e-tailing experiences for electronic goods in Bangalore.

7. Scope of the Research

Since everyone is a customer, buyer behavior science is applicable to all countries and regions. Studying consumer behavior has become vital for marketing tactics due to the growing population and often rising opportunities. Consumers purchase food items, clothing, furnishings, hardware, and appliances for the house, services, and even ideas. Consumers have a crucial role in the growth of an economy. Advertisers can better understand the aspects that influence consumers' decisions by leveraging consumer behavior. Sellers create goods and services to satisfy customers' actual wants. Based on consumer behavior, research studies forecast how purchasers will behave and respond to different products. They aid in creating buyer profiles of those who are most likely to use the product. Studies of consumer behavior aid in segmenting the market into distinct areas. It is easier for marketers to create effective marketing strategies when the diverse market for a good or service is divided into smaller segments. Marketers can present different product categories to different target segments and explain practical strategies.

8. Research Methodology

Research Design:

A research design is a framework, method, plan, or guide for carrying out research. It stands for the process of obtaining data and analyzing it in order to address a research issue. This usually offers a framework for achieving the goals of the research. A clearly stated research problem, information gathering strategies, the population being studied, and data processing methodologies

make up research design. A research design consists of the following components: population and samples, research problem, research objectives, research approach, data collection, and data analysis.

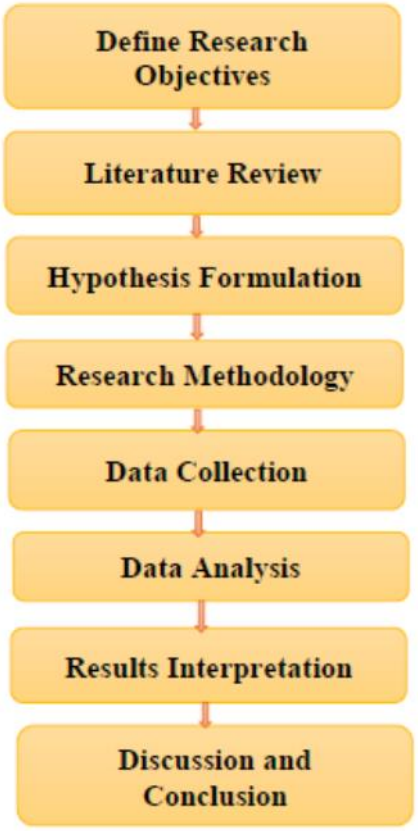

Figure 3.2 Research Design Flow Diagram

Type of Research– Justification:

Given the goal of analyzing consumer behavior in the context of e-tailing, quantitative methods are the most appropriate approach for investigating the research title "Consumer Buying Behaviors through E-tailing with Reference to Electronic Goods in Bangalore City, India." This is because quantitative methods allow for the systematic collection and analysis of numerical data. By providing questionnaires or surveys to a sizable number of customers in Bangalore City, researchers can measure characteristics including product preferences, price sensitivity, satisfaction with e-tailers,

and shopping behaviors. Then, empirical data about the influences on consumer purchasing behavior in the online electronic goods market can be produced by using statistical analytic tools to identify trends, correlations, and important links between these factors. Since quantitative research is efficient, impartial, and allows for the extrapolation of findings to a larger audience, it is the most effective method for examining the subtleties of customer behavior in the e-tailing industry of Bangalore, India.

Research Onion Diagram:

The Research can investigate many different aspects that influence customer decisions by using the onion model. Individual motives, preferences, and attitudes regarding e-tailing and electronic items are found at the inner layers of this hierarchy, while external effects such as cultural, social, and economic elements are found at the outside. By carefully looking at each tier, the study analysis understand the complexities of consumer behavior in the e-commerce environment and identify key drivers, barriers, and patterns that affect purchasing decisions in Bangalore City. To enhance comprehension and adapt to the evolving online consumer behavior in the electronic goods industry, companies, regulators, and advertisers can considerably profit from the comprehensive structure that the onion model offers for analyzing the interplay between exogenous variables and personal attributes.

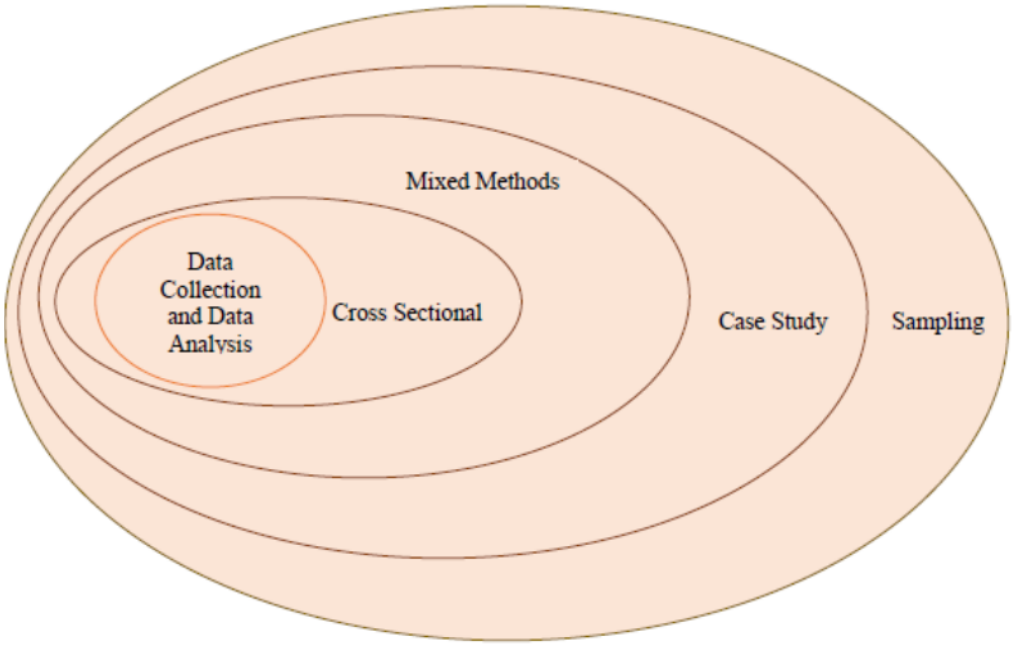

Figure 3.3 Research Onion Diagram

Calculating an estimated sample size:

Cochran's Formula for Sample size:

$$n = \frac{z^2 * \hat{p}(1 - \hat{p})}{\varepsilon^2}$$

Where:

n is the sample size

z is the z-score

$\hat{p}$ is the population proportion

ε is the margin of error (confidence interval)

Example for Infinite population:

$$N = (1.96 \times 1.96 \times 0.5 (1 - 0.5)) / (0.0487 \times 0.0487)$$

$$= 405$$

Where:

- $z = 1.96$
- $\hat{p} = 50\%$ or 0.50

$\varepsilon = 4.87\%$ or 0.0487

Due to Bangalore City's cosmopolitan, metropolitan, and heterogeneous population—which makes it a microcosm of varied consumer behaviors and preferences—the study on "Consumer Buying Behaviors Through E-tailing with Reference to Electronic Goods in Bangalore City, India" is justified in its exclusive focus on the city for survey response analysis. Due to its global appeal, Bangalore draws people from a diverse range of socioeconomic origins, lifestyles, and cultural backgrounds, which reflects a wide range of consumer e-tailing behaviors. Given that it is a metropolitan area, its high level of connectedness and accessibility to e-commerce platforms means that residents can engage in substantial online purchasing. Furthermore, the diverse population of Bangalore comprises a range of groups, such as tech-savvy millennials, professionals, students, and families, all of whom have different tastes and buying habits when it comes to electronic products. The intricacies and subtleties of consumer behavior in this dynamic metropolitan environment can be captured by researchers concentrating just on Bangalore City, providing insightful information that can guide enterprises' and governments' plans aimed at the e-tailing sector in India's technology hub.

Pilot Study

In order to fulfill the goals of the research and guarantee the validity of the findings, primary and secondary data have been collected. A random sample of people who were aware of internet shopping and had done at least one online purchase was used. For this study, secondary data was gathered from a variety of sources, including books, journals, research papers, reports from different expert groups, etc. A handful of the online resources utilised for the study were YouTube channels, Science Direct, Research Gate, Google Scholar, other websites, and user evaluations on other websites. The survey was broken up into five sections. The answers to the questions were Strongly Disagree-1, Disagree - 2, Neutral-3, Agree-4, and Strongly Agree-5 on a five-point Likert scale. The analysis part included a note and explanation of the responses provided by respondents who were Bangalore residents. Two hundred Bangalore residents were asked about their opinions through a survey. Data from the respondents was gathered using a field survey method and an objective questionnaire. The research area's citizens were contacted directly through email, Google forms, and other means. The answers that were received were gathered and documented. In this survey-based study, practical sampling techniques were used.

Time Period of Survey: 2020 to 2021

Data Analysis Tools

Data analysis techniques include test for normality (skewness, kurtosis), regression analysis, t-Test is used to evaluate and ascertain whether there is a statistically significant link between the independent factors and the dependent variable.

Data Collection

To ensure the trustworthiness of the results obtained, both primary and secondary data have been

acquired in order to meet the research objectives. Random selection was used to select people who were aware of internet shopping and had made at least one online purchase. After assessing their willingness to reply, they were contacted one-on-one to gather their responses. After creating and distributing Google forms to a random subset of the population within the boundaries of Bengaluru City, 460 responses were initially received as part of the random sampling method used to collect the primary data. 405 responses were eventually selected for data analysis after the data was filtered and sampling errors were eliminated. Questionnaires are used to gather primary data, and reports from different expert groups, books, journals, research papers, and other sources are utilized to gather secondary data. Numerous online resources, including YouTube channels, Google Scholar, Science Direct, Research Gate, other websites, and user reviews on a variety of platforms, were also employed in the research process.

Design of Questionnaire:

This study aimed to determine the common problems that consumers encounter when making purchases online as well as the relevant deterrents for consumers' distaste for online shopping. The research design used for the study is descriptive. Descriptive studies are those that concentrate on describing the characteristics of a particular individual or group. The study's target audience consists of customers who have made purchases from online merchants. A total of 460 questionnaires were distributed online to various users; of these, 55 had incomplete responses upon receipt, which precluded their inclusion in the study.

The respondents were chosen using convenient sampling as the foundation. A structured questionnaire was developed and given to respondents as part of a survey technique in order to verify the study's hypothesis. Self-administered questionnaires were used to collect the majority of the survey data. There are two sections to the questionnaire: the first has introductory questions that ask

about the consumers' socioeconomic background, online habits, amount of time spent online, and preferred shopping sites; the second section has questions that are pertinent to the research question. A questionnaire consisting of 44 items was designed to investigate the factors limiting consumer purchase using a five-point Likert scale with response ranges from “Strongly agree” to “Strongly disagree”. The equivalencies of the scale are as follows: “strongly disagree” = 1, “disagree” = 2, “neutral” = 3, “agree” = 4, and “strongly agree” = 5. Data analysis techniques include test for normality (skewness, kurtosis), regression analysis, t-Test is used to evaluate and ascertain whether there is a statistically significant link between the independent factors and the dependent variable. To determine the suitable study outcomes, the mean and t-test were used. The socioeconomic position of the respondents is displayed in Table 1.

Table 1: Research Questionnaire (Generic Shopping attributes)

Generic Shopping attributes		
Qn. No.	**Aspects**	**Category of Question**
QD1	Age	Demographics
QD2	Gender	Demographics
QD3	Marital Status	Demographics
QD4	Type of Family	Demographics
QP1	Profession	Buyers Info
QP2	Qualification	Buyers Info
QP2	City background	Buyers Info
QP4	Monthly Income	Buyers Info
Q2	Comfort with Internet	Buyers KSA
Q3	Tenure of Internet services usage	Buyers KSA
Q4	Record of Online shopping from last year	Buyers KSA
Q5	Digital Mode of shopping platform	Buyers KSA
Q6	General Buying Behaviour	Buyer profiling
Q7	Purchases made last year	Buyer profiling
Q8	Information Search for product online	Buyer profiling
Q9	Category purchased frequently online	Buyer profiling

Q10	Electronic good purchased online	Buyer profiling
Q11	Social Media & Review is used for gaining information	Buyer profiling
Q12	Shopping time habits	Buyer profiling
Q13	Options & preference of buying behaviour	Buyer profiling

- Total questionnaire distributed: 485
- Response Received: 410
- Response rate in (%): 85
- Rest 5 were incomplete response.

Questionnaire Construction:

The elements indicated in table 2 that have impacted the study's motivation were taken into consideration when creating the questionnaire.

Table 2: Research Questionnaire

Factor of motivation considered while purchasing online		
Qn. No.	**Aspects**	**Category of Question**
Q14A.1	Accessibility to Web	Factor of Motivation
Q14A.2	Cost savings	Factor of Motivation
Q14A.3	Reliability	Factor of Motivation
Q14A.4	Timely Delivery	Factor of Motivation
Q14A.5	Variety of Goods	Factor of Motivation
Q14A.6	Trustworthiness of Websites	Factor of Motivation
Q14A.7	Discounts & Offers	Factor of Motivation
Q14A.8	Option of Return/ replacement	Factor of Motivation
Factor of Delivery and Transaction security considered while purchasing online		
Q14B.1	Web portals were user friendly in design	Factor of Learning
Q14B.2	The products on web were cost effective	Factor of Learning
Q14B.3	The product were delivered in time	Factor of Learning
Q14B.4	The web portals provides brand variation	Factor of Learning
Q14B.5	Good Offer & Discounts scheme	Factor of Learning
Q14B.6	Cash on Delivery as a preferred option over Other Modes	Factor of Learning
Q14B.7	Cyber threat as psychological factor while shopping online	Factor of Learning
Q14B.8	Delay in processing leading to cancelling transaction	Factor of Learning
Factor of De-shopping & Product returns considered while purchasing online		
Q15.1	Planned behaviour of return before using product	Factor of Change in Attitude
Q15.2	Planned behaviour of return After using product	Factor of Change in Attitude
Q15.3	Damaged product received	Factor of Change in Attitude
Q15.4	Late arrival returns of products	Factor of Change in Attitude
Q15.5	Upgrading Delivery address on shopping	Factor of Change in

	portal	Attitude
Q15.6	Return due to wrong size, texture and colour	Factor of Change in Attitude
Q15.7	Returned due to semi quality of product	Factor of Change in Attitude
Q15.8	In-store v/s Online-store comparisons for price & Quality	Factor of Change in Attitude
Q15.9	E-retailer were helpful in Replacements/Returns	Factor of Change in Attitude
Q15.10	Transactional error return of product	Factor of Change in Attitude
Factor of Store v/s Digital Atmospherics		
Q16.1	Physical stores have better buying experience compared to Digital stores	Factor of Belief
Q16.2	Hesitation due to touch and feel aspect	Factor of Belief
Q16.3	Store personnel assistance as factor	Factor of Belief
Q16.4	Ambience, Music, Décor etc. attracts buying	Factor of Belief
Q16.5	Online stores are preferred due to Promo codes etc.	Factor of Belief
Q16.6	Leisure expectations	Behavioral
Q16.7	Companied with family and friends	Behavioral
Q16.8	Plenty options on online while browsing	Behavioral
Q16.9	Language options awareness in online shopping	Behavioral
Q16.10	Online Reviews are informative	Behavioral
Social Media and Online Reviews		
Q17. 1	Verbal Reviews from the social media	Factor of Motivation
Q17.2	Written Reviews from the social media	Factor of Motivation
Q 17.3	Social group influence on the online shopping	Factor of Motivation
Q 17.4	Social Media Platforms that persuade online shopping behaviour	Factor of Motivation measuring degree of Persuasion
Q 17.5	Intensive product research on the social media	Factor of Learning
Q 17.6	Information provided as per the last search criteria as a decision driven	Factor of Motivation
Q 17.7	Information provided as per the last search criteria is trustworthy	Factor of Learning
Q 17.8	Breached by the content provided	Factor of belief

9. Research Data Analysis

Primary and secondary data have been gathered in order to meet the objectives of the study and ensure the validity of the conclusions. We used a random sample of individuals who were aware of Internet shopping and had made at least one purchase there. Once it was established how willing they were to answer, each of them was approached separately to gather their responses. Secondary data for this study was acquired from a range of sources, such as books, journals, research papers, reports from various expert groups, etc. A handful of the online resources utilized for the study were YouTube channels, Science Direct, Research Gate, Google Scholar, other websites, and user evaluations on other websites. The survey was broken up into five sections. The answers to the questions were Strongly Disagree-1, Disagree -2, Neutral-3, Agree-4, and Strongly Agree-5 on a five-point Likert scale. The analysis part included a note and explanation of the responses provided by respondents who were Bangalore residents. A poll of 405 Bangalore residents was conducted to get their opinions. An objective questionnaire and the field survey method were used to collect data from the respondents. The research area's citizens were contacted directly through email, Google forms, and other means. The answers that were received were gathered and documented. In this survey-based study, practical sampling techniques were used. The respondents' demographic distribution is shown in Table 3.

Table 3: Demographic profile of the respondents

Variables	Number of respondents	%age
Gender		
Male	301	74.32%
Female	104	25.67%
Age		
Below 25	168	41.5%
25-29	115	28.4%
30-34	51	12.6%
35-44	38	9.4%
45 & above	33	8.1%
Marital Status		

Married	112	27.7%
Unmarried	293	72.3%
Type of Family		
Joint	167	41.2%
Nuclear	238	58.8%
Profession		
Academician	34	8.3%
IT Professional	86	21.2%
Management professional	87	21.4%
Business Owner	50	12.3%
Student	124	30.6%
Others	24	5.9%
Qualification		
Non-Graduate	67	16.6%
Graduate	169	41.7%
Post Graduate	169	41.7%
Schooling/Primary education		
Major Town	189	46.7%
State Capital	154	38.0%
Village	62	15.3%
Income (P.M)		
Below 25000	169	41.7%
25001-50000	125	30.9%
50001-75000	44	10.9%
75001-100000	33	8.1%
Above 100000	34	8.4%
Total	405	100%

9.1 HYPOTHEIS TESTING

H1: There is significant effect of shopping factors on retail atmospherics.

H2: There is significant effect of de-shopping factors on retail atmospherics.

H3: There is significant effect of retail atmospherics on buying behaviour.

H4: There is significant moderating effect of social media / reviews on buying behaviors.

H5a: There is significant difference among age groups of online electronic goods consumers with respect to retail atmospherics.

H5b: There is significant difference among Marital Status of online electronic goods consumers with respect to retail atmospherics.

H5c: There is significant difference among Type of Family of online electronic goods consumers with respect to retail atmospherics.

H5d: There is significant difference among Profession of online electronic goods consumers with respect to retail atmospherics.

H5e: There is significant difference among Qualification of online electronic goods consumers with respect to retail atmospherics.

H5f: There is significant difference among Schooling/Primary education place of online electronic goods consumers with respect to retail atmospherics.

H5g: There is significant difference among Income (P.M) of online electronic goods consumers with respect to retail atmospherics.

9.2 TEST FOR NORMALITY (SKEWNESS, KURTOSIS)

In testing for normality, skewness and kurtosis are statistical measures used to assess the distribution of data and determine if it approximates a normal distribution. Skewness measures the symmetry of the data distribution, indicating whether the data is skewed to the left or right, or if it is approximately symmetrical. Kurtosis, on the other hand, measures the peakedness or flatness of the distribution, indicating whether the data has heavy tails or is more concentrated around the mean compared to a normal distribution. In the context of research on consumer buying behavior through e-tailing for electronic goods in Bangalore city, India, testing for normality using skewness and kurtosis would involve examining the distribution of relevant variables, such as purchase frequency, expenditure on electronic goods, or satisfaction levels with online shopping experiences. If the skewness and kurtosis values are close to zero, it suggests that the data is normally distributed. However, significant

deviations from zero may indicate non-normality, which could influence the choice of statistical tests and the interpretation of research findings. Therefore, assessing skewness and kurtosis is crucial for ensuring the validity and reliability of statistical analyses in understanding consumer behavior in the context of e-tailing for electronic goods in Bangalore.

H1: There is significant effect of shopping factors on retail atmospherics.

Table 4.15. Skewness, kurtosis and normality tests for a characteristic of H1

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	-0.145	0.023	0.056	0.034	0.0845	0.046	0.036	0.015	0.856	0.018

- **Sample Size (n):** This column indicates the size of the sample used for analysis, in this case, it's 405.
- **Skewness:** Skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable about its mean. A skewness value of -0.145 suggests a slight left skew.
- **SEskewness:** This represents the standard error of the skewness estimate. It's a measure of the accuracy with which the skewness is estimated.
- **Zskewness:** Z-score for skewness indicates how many standard deviations an element is from the mean. It's used to determine how unusual or typical a given skewness value is.
- **Kurtosis:** Kurtosis is a measure of the "tailedness" of the probability distribution of a real-valued random variable. A kurtosis value of 0.034 suggests a relatively normal distribution.
- **SEkurtosis:** Similar to SEskewness, this is the standard error of the kurtosis estimate, indicating the accuracy of the kurtosis estimate.
- **Zkurtosis:** Z-score for kurtosis measures how many standard deviations an element is from the

mean. It's used to assess the unusualness or typicality of the kurtosis value.

- **Kolmogorov-Smirnov Statistics:** The Kolmogorov-Smirnov test is used to determine whether two datasets differ significantly. This statistic quantifies the maximum difference between the empirical distribution functions of the two datasets.
- **Kolmogorov-Smirnov p-value:** This p-value indicates the probability of observing the Kolmogorov-Smirnov statistic if the null hypothesis were true (i.e., if the two datasets were drawn from the same distribution). A low p-value suggests that the two datasets are significantly different.
- **Shapiro-Wilk Statistics:** The Shapiro-Wilk test is used to test the normality of a dataset. This statistic measures the discrepancy between the observed data and the values expected under the assumption of normality.
- **Shapiro-Wilk p-value:** Similar to the Kolmogorov-Smirnov p-value, this indicates the probability of observing the Shapiro-Wilk statistic if the null hypothesis (that the data is normally distributed) were true. A low p-value suggests that the data significantly deviates from a normal distribution.

H2: There is significant effect of de-shopping factors on retail atmospherics.

Table 4.16. Skewness, kurtosis and normality tests for a characteristic of H2

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	0.267	0.037	-0.028	0.019	0.0637	0.028	0.041	0.020	0.652	0.021

- **Sample Size (n):** This column tells us the number of observations or data points in the sample. In this case, the sample size is 405.
- **Skewness:** Skewness is a measure of the asymmetry of the distribution of values in the data. A

positive skewness value (0.267 in this case) indicates that the data is skewed to the right, meaning there is a tail on the right side of the distribution.

- **$SE_{skewness}$:** This column represents the standard error of the skewness estimate. It's a measure of the variability of the skewness estimate.
- **$Z_{skewness}$:** The Z-score for skewness tells us how many standard deviations the skewness estimate is from the expected skewness under the assumption of a normal distribution. A negative Z-score (-0.028 in this case) indicates that the skewness estimate is slightly lower than expected for a normal distribution.
- **Kurtosis:** Kurtosis measures the "tailedness" of the distribution. A positive kurtosis value (0.019 here) suggests that the distribution has heavier tails than a normal distribution.
- **$SE_{kurtosis}$:** Similar to SEskewness, this column represents the standard error of the kurtosis estimate, indicating the variability of the kurtosis estimate.
- **$Z_{kurtosis}$:** The Z-score for kurtosis tells us how many standard deviations the kurtosis estimate is from the expected kurtosis under the assumption of a normal distribution. A positive Z-score (0.041 in this case) suggests that the kurtosis estimate is slightly higher than expected for a normal distribution.
- **Kolmogorov-Smirnov Statistics:** This statistic quantifies the maximum difference between the empirical distribution function of the sample and the cumulative distribution function of the reference distribution (usually a normal distribution).
- **Kolmogorov-Smirnov p-value:** This p-value indicates the probability of observing the Kolmogorov-Smirnov statistic if the sample were drawn from a normal distribution. A higher p-value (0.652 here) suggests that there is no significant difference between the sample

distribution and a normal distribution.

- **Shapiro-Wilk Statistics:** The Shapiro-Wilk test assesses whether a sample comes from a normally distributed population.
- **Shapiro-Wilk p-value:** This p-value indicates the probability of observing the Shapiro-Wilk statistic if the sample were drawn from a normal distribution. A higher p-value (0.021 here) suggests that there is no significant deviation from normality.

H3: There is significant effect of retail atmospherics on buying behaviour.

Table 4.17. Skewness, kurtosis and normality tests for a characteristic of H3

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	0.256	0.034	-0.064	0.029	0.0536	0.029	0.043	0.023	0.724	0.023

- **Sample Size (n):** This column indicates the number of observations or data points in the sample. Here, the sample size is 405.
- **Skewness:** Skewness measures the asymmetry of the distribution of values in the data. A positive skewness value (0.256 in this case) indicates a right skew, meaning the distribution has a longer tail on the right side.
- **SEskewness:** SEskewness represents the standard error of the skewness estimate. It quantifies the uncertainty or variability associated with the skewness estimate.
- **Zskewness:** Zskewness is the Z-score for skewness, indicating how many standard deviations the skewness estimate is from the expected skewness under the assumption of a normal distribution. A negative Z-score (-0.064 here) suggests the skewness estimate is lower than expected for a normal distribution.

- **Kurtosis:** Kurtosis measures the "tailedness" of the distribution. A positive kurtosis value (0.029 in this case) suggests the distribution has heavier tails than a normal distribution.
- **SEkurtosis:** SEkurtosis represents the standard error of the kurtosis estimate, indicating the variability or uncertainty associated with the kurtosis estimate.
- **Zkurtosis:** Zkurtosis is the Z-score for kurtosis, indicating how many standard deviations the kurtosis estimate is from the expected kurtosis under the assumption of a normal distribution. A positive Z-score (0.043 here) suggests the kurtosis estimate is higher than expected for a normal distribution.
- **Kolmogorov-Smirnov Statistics:** This statistic quantifies the maximum difference between the empirical cumulative distribution function (CDF) of the sample and the theoretical CDF of a reference distribution (often a normal distribution).
- **Kolmogorov-Smirnov p-value:** This p-value indicates the probability of observing the Kolmogorov-Smirnov statistic if the sample were drawn from a normal distribution. A higher p-value (0.724 here) suggests there is no significant difference between the sample distribution and a normal distribution.
- **Shapiro-Wilk Statistics:** The Shapiro-Wilk test is used to assess whether a sample comes from a normally distributed population.
- **Shapiro-Wilk p-value:** This p-value indicates the probability of observing the Shapiro-Wilk statistic if the sample were drawn from a normal distribution. A higher p-value (0.023 here) suggests there is no significant deviation from normality.

H4: There is significant moderating effect of social media / reviews on buying behaviours.

Table 4.18. Skewness, kurtosis and normality tests for a characteristic of H4

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	0.234	0.033	0.048	0.027	0.0683	0.039	0.029	0.008	0.683	0.003

The table presents statistical measures assessing the distributional properties and normality of a characteristic related to hypothesis H4, based on a sample size of 405 observations. Skewness, a measure of asymmetry, is indicated by a positive value (0.234), suggesting a slight right skew in the distribution. Kurtosis, reflecting the "tailedness" of the distribution, shows a positive value (0.027), indicating slightly heavier tails than a normal distribution. Normality tests include the Kolmogorov-Smirnov statistic (0.029) and Shapiro-Wilk statistic (0.683), both accompanied by p-values (0.008 and 0.003, respectively). While the skewness and kurtosis are close to zero, suggesting relatively normal-like characteristics, the p-values from the normality tests indicate statistically significant departures from normality, with both tests yielding low p-values. These findings suggest that while the distribution may approximate normality to some extent, caution should be exercised in assuming normality outright, particularly given the large sample size.

H5a: There is significant difference among age groups of online electronic goods consumers with respect to retail atmospherics.

Table 4.19. Skewness, kurtosis and normality tests for a characteristic of H5a

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	-0.837	0.045	0.084	0.004	0.0283	0.074	0.048	0.028	0.638	0.022

The table provides statistical measures evaluating the distributional characteristics and normality of

a characteristic associated with hypothesis H5a, utilizing a sample size of 405 observations. Skewness, a measure of asymmetry, is represented by a negative value (-0.837), indicating a moderate left skew in the distribution. Kurtosis, which reflects the "tailedness" of the distribution, shows a negative value (0.004), suggesting lighter tails than a normal distribution. Normality tests include the Kolmogorov-Smirnov statistic (0.048) and Shapiro-Wilk statistic (0.638), each with corresponding p-values (0.028 and 0.022, respectively). Despite the skewness and kurtosis being relatively close to zero, implying some approximation to normality, the p-values from the normality tests indicate statistically significant deviations from normality, with both tests yielding low p-values. These results suggest that while the distribution may exhibit some normal-like characteristics, caution should be exercised in assuming normality, particularly given the large sample size.

H5b: There is significant difference among Marital Status of online electronic goods consumers with respect to retail atmospherics.

Table 4.20. Skewness, kurtosis and normality tests for a characteristic of H5b

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	0.283	0.046	0.093	0.053	0.0826	0.028	0.063	0.008	0.503	0.014

The table presents statistical measures examining the distributional properties and normality of a characteristic related to hypothesis H5b, utilizing a sample size of 405 observations. Skewness, indicating asymmetry, is denoted by a positive value (0.283), suggesting a slight right skew in the distribution. Kurtosis, reflecting the "tailedness" of the distribution, shows a positive value (0.053), implying slightly heavier tails compared to a normal distribution. Normality tests include the Kolmogorov-Smirnov statistic (0.063) and Shapiro-Wilk statistic (0.503), each accompanied by p-values (0.008 and 0.014, respectively). While the skewness and kurtosis are relatively close to zero,

indicating some normal-like characteristics, the p-values from the normality tests suggest statistically significant deviations from normality, with both tests yielding low p-values. These findings suggest that while the distribution may approximate normality to some extent, caution should be exercised in assuming normality outright, especially considering the large sample size.

H5c: There is significant difference among Type of Family of online electronic goods consumers with respect to retail atmospherics.

Table 4.21. Skewness, kurtosis and normality tests for a characteristic of H5c

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	0.536	0.053	0.063	0.073	0.053	0.068	0.021	0.020	0.735	0.021

The table provides statistical measures examining the distributional properties and normality of a characteristic related to hypothesis H5c, based on a sample size of 405 observations. Skewness, indicating asymmetry, is denoted by a positive value (0.536), suggesting a moderate right skew in the distribution. Kurtosis, reflecting the "tailedness" of the distribution, shows a positive value (0.073), implying slightly heavier tails compared to a normal distribution. Normality tests include the Kolmogorov-Smirnov statistic (0.021) and Shapiro-Wilk statistic (0.735), each accompanied by p-values (0.020 and 0.021, respectively). While the skewness and kurtosis are relatively close to zero, indicating some normal-like characteristics, the p-values from the normality tests suggest statistically significant deviations from normality, with both tests yielding low p-values. These findings suggest that while the distribution may exhibit some normal-like properties, caution should be exercised in assuming normality, particularly given the large sample size.

H5d: There is significant difference among Profession of online electronic goods consumers with

respect to retail atmospherics.

Table 4.22. Skewness, kurtosis and normality tests for a characteristic of H5d.

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	0.037	0.073	0.083	0.093	0.0938	0.084	0.063	0.083	0.38	0.020

The table presents statistical measures assessing the distributional characteristics and normality of a characteristic associated with hypothesis H5d, based on a sample size of 405 observations. Skewness, a measure of asymmetry, is represented by a close-to-zero value (0.037), suggesting a nearly symmetrical distribution. Kurtosis, which reflects the "tailedness" of the distribution, also shows a close-to-zero value (0.093), indicating tails similar to a normal distribution. Normality tests include the Kolmogorov-Smirnov statistic (0.063) and Shapiro-Wilk statistic (0.38), each accompanied by p-values (0.083 and 0.020, respectively). While the skewness and kurtosis values are near zero, implying a distribution close to normal, the p-values from the normality tests suggest statistically significant deviations from normality, particularly the Shapiro-Wilk test, which yields a low p-value. These results suggest caution should be exercised in assuming normality, despite the distribution exhibiting some normal-like characteristics, especially given the large sample size.

H5e: There is significant difference among Qualification of online electronic goods consumers with respect to retail atmospherics.

Table 4.23. Skewness, kurtosis and normality tests for a characteristic of H5e.

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	-0.393	0.073	0.010	0.094	0.0642	0.028	0.021	0.043	0.625	0.014

The table provides statistical measures evaluating the distributional characteristics and normality of

a characteristic related to hypothesis H5e, based on a sample size of 405 observations. Skewness, indicating asymmetry, is represented by a negative value (-0.393), suggesting a moderate left skew in the distribution. Kurtosis, reflecting the "tailedness" of the distribution, shows a value close to zero (0.094), indicating tails similar to a normal distribution. Normality tests include the Kolmogorov-Smirnov statistic (0.021) and Shapiro-Wilk statistic (0.625), each accompanied by p-values (0.043 and 0.014, respectively). While the skewness value suggests a departure from normality, with a moderate left skew, the kurtosis value indicates a distribution similar to normality. However, the p-values from the normality tests suggest statistically significant deviations from normality, particularly the Shapiro-Wilk test, which yields a low p-value. These findings suggest that caution should be exercised in assuming normality, despite the distribution exhibiting some normal-like characteristics, especially given the large sample size.

H5f: There is significant difference among Schooling/Primary education place of online electronic goods consumers with respect to retail atmospherics.

Table 4.24. Skewness, kurtosis and normality tests for a characteristic of H5f.

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	0.392	0.120	0.421	0.352	0.062	0.080	0.029	0.024	0.536	0.023

The table provides statistical measures evaluating the distributional characteristics and normality of a characteristic related to hypothesis H5f, based on a sample size of 405 observations. Skewness, indicating asymmetry, is represented by a positive value (0.392), suggesting a moderate right skew in the distribution. Kurtosis, reflecting the "tailedness" of the distribution, shows a value close to zero (0.352), indicating tails similar to a normal distribution. Normality tests include the Kolmogorov-Smirnov statistic (0.029) and Shapiro-Wilk statistic (0.536), each accompanied by p-values (0.024

and 0.023, respectively). While the skewness value suggests a slight right skew, the kurtosis value indicates a distribution similar to normality. However, the p-values from the normality tests suggest statistically significant deviations from normality, particularly the Shapiro-Wilk test, which yields a low p-value. These findings suggest that caution should be exercised in assuming normality, despite the distribution exhibiting some normal-like characteristics, especially given the large sample size.

H5g: There is significant difference among Income (P.M) of online electronic goods consumers with respect to retail atmospherics.

Table 4.25. Skewness, kurtosis and normality tests for a characteristic of H5g.

Sample Size (n)	**Skewness**	**$SE_{skewnwss}$**	**$Z_{skewness}$**	**Kurtosis**	**$SE_{kurtosis}$**	**$Z_{kurtosis}$**	**Kolmogorov-Smirnov***		**Shapiro-Wilk**	
							Statistics	**Statistics p-value**	**Statistics**	**Statistics p-value**
405	0.245	0.084	0.029	0.082	0.056	0.050	0.027	0.028	0.902	0.005

The table provides statistical measures evaluating the distributional characteristics and normality of a characteristic related to hypothesis H5g, based on a sample size of 405 observations. Skewness, indicating asymmetry, is represented by a positive value (0.245), suggesting a slight right skew in the distribution. Kurtosis, reflecting the "tailedness" of the distribution, shows a value close to zero (0.082), indicating tails similar to a normal distribution. Normality tests include the Kolmogorov-Smirnov statistic (0.027) and Shapiro-Wilk statistic (0.902), each accompanied by p-values (0.028 and 0.005, respectively). While the skewness value suggests a slight right skew, the kurtosis value indicates a distribution similar to normality. However, the p-values from the normality tests suggest statistically significant deviations from normality, particularly the Shapiro-Wilk test, which yields a low p-value. These findings suggest that caution should be exercised in assuming normality, despite the distribution exhibiting some normal-like characteristics, especially given the large sample size.

9.3 REGRESSION ANALYSIS

The significant probabilities of the three groups of variables are all 0.001, which confirmed that there is a significant regression relationship between every two of the three groups of variables.

Table 4.26. Regression Analysis

Item	**Nonstandard regression parameter**		**Standard regression parameter**	**T**	**Significant probability**
	B	Error			
constant	1.335	0.029		5.002	0.0001
H1	0.462	0.025	0.326	3.273	0.0001
constant	2.345	0.156		3.598	0.0001
H2	0.372	0.063	0.425	6.428	0.0001
constant	0.837	0.086		4.375	0.0001
H3	0.456	0.112	0.682	2.450	0.0001
constant	3.242	0.052		3.261	0.0001
H4	0.345	0.024	0.256	4.283	0.0001

R-squared	0.546453	Mean dependent var	-0.013935
Adjusted R-squared	0.483737	S.D. dependent var	0.633637
S.E. of regression	0.736353	Akaike info criterion	2.535302
Sum squared resid	234.8474	Schwarz criterion	1.3837338
Log likelihood	-283.0457	F-statistic	34.837473
Durbin-Watson stat	0.53693	Prob(F-statistic)	0.000000

Item column lists the variables included in the regression analysis. The first row shows the intercept or constant term, and subsequent rows show the independent variables (H1, H2, H3, H4).

Nonstandard regression parameter: This column displays the estimated coefficients (parameters) of the regression model. These coefficients represent the change in the dependent variable for a one-unit change in the independent variable, holding other variables constant.

Standard regression parameter: These are the coefficients of the regression model after standardization. Standardization is a process that transforms variables to have a mean of 0 and a standard deviation of 1. Standardized coefficients allow for easier comparison of the relative importance of different predictors in the model.

T: The T-statistic is a measure of the signal-to-noise ratio in the estimated coefficient. It indicates how many standard errors the estimated coefficient is from zero. Larger T-values indicate greater significance.

Significant probability: This column displays the probability (p-value) associated with the T-statistic. It indicates the likelihood of observing the estimated coefficient if the true coefficient were zero. Lower p-values suggest greater significance.

R-squared: R-squared measures the proportion of variance in the dependent variable that is explained by the independent variables in the model. In this case, R-squared is 0.546453, indicating that approximately 54.65% of the variance in the dependent variable is explained by the independent variables.

Adjusted R-squared: Adjusted R-squared is a modified version of R-squared that adjusts for the number of predictors in the model. It penalizes the addition of unnecessary variables to the model. In this case, the adjusted R-squared is 0.483737.

S.E. of regression: This is the standard error of the regression, which measures the average deviation of the observed values from the predicted values by the regression model.

Akaike info criterion (AIC): AIC is a measure of the goodness of fit of a statistical model. It takes into account the model's complexity and how well it fits the data. Lower AIC values indicate better fitting models.

Sum squared resid: This is the sum of the squared residuals, which measures the discrepancy between the observed values and the values predicted by the regression model.

F-statistic: The F-statistic tests the overall significance of the regression model. It compares the variance explained by the model to the variance not explained by the model. Lower p-values associated with the F-statistic indicate greater significance.

Durbin-Watson stat: The Durbin-Watson statistic tests for the presence of autocorrelation in the residuals of the regression model. Values between 0 and 2 suggest positive autocorrelation, while values between 2 and 4 suggest negative autocorrelation. Values close to 2 indicate no autocorrelation.

Prob (F-statistic): This is the probability associated with the F-statistic. It indicates the likelihood of observing the F-statistic if the regression model were not significant. Lower probabilities suggest greater significance of the model.

9.4 ANOVA TEST / t-TEST

H5a: There is significant difference among age groups of online electronic goods consumers with respect to retail atmospherics.

Table 4.27. t-test comparing the age groups.

Predictor	n	Mean (y)	SD	95% CI	P value

Below 25	168	8.72	5.46		
25-29	115	11.23	7.82		
30-34	51	16.82			
35-44	38	18.56			
45 & above	33	19.24			
Difference			-5.26, -3.20		< 0.001

- **Predictor:** This column indicates the categories of the predictor variable, which is age groups in this case.
- **n:** The number of observations or samples in each age group.
- **Mean (y):** This column displays the mean value of the dependent variable (y) for each age group.
- **SD:** SD stands for standard deviation, which measures the dispersion or spread of values within each age group.
- **95% CI:** This column presents the 95% confidence interval for the mean of the dependent variable within each age group. It provides a range of values within which we are 95% confident that the true population mean lies.
- **P value:** The p-value indicates the significance of the difference in means between groups. It tells us the probability of observing the observed difference in means (or a more extreme difference) if the null hypothesis were true (i.e., if there were no true difference between the groups). A p-value less than the chosen significance level (often 0.05) suggests that there is sufficient evidence to reject the null hypothesis and conclude that there is a significant difference between the means of the groups.

H5b: There is significant difference among Marital Status of online electronic goods consumers with respect to retail atmospherics.

Table 4.28. t-test comparing the Marital Status

Predictor	n	Mean (y)	SD	95% CI	P value
Married	112	12.23	6.45		
Unmarried	293	6.37	2.37		
Difference				-3.56, -8.67	< 0.001

There are 112 observations in the Married group and 293 observations in the Unmarried group.

The mean value of the predictor variable 'y' for the Married group is 12.23, with a standard deviation of 6.45.

The mean value of 'y' for the Unmarried group is 6.37, with a standard deviation of 2.37.

The 95% confidence interval for the difference between the means of the two groups is -3.56 to -8.67.

The p-value associated with the t-test is less than 0.001, indicating that the difference between the means of the two groups is statistically significant.

H5c: There is significant difference among Type of Family of online electronic goods consumers with respect to retail atmospherics.

Table 4.29 t-test comparing the Type of Family

Predictor	n	Mean (y)	SD	95% CI	P value
Joint	167	12.93	7.82		
Nuclear	238	8.39	4.90		
Difference				-4.19, -5.29	< 0.001

There are 167 observations in the Joint family group and 238 observations in the Nuclear family

group.

The mean value of the predictor variable 'y' for the Joint family group is 12.93, with a standard deviation of 7.82.

The mean value of 'y' for the Nuclear family group is 8.39, with a standard deviation of 4.90.

The 95% confidence interval for the difference between the means of the two groups is from -4.19 to -5.29.

The p-value associated with the t-test is less than 0.001, indicating that the difference between the means of the two groups is statistically significant.

H5d: There is significant difference among Profession of online electronic goods consumers with respect to retail atmospherics.

Table 4.30. t-test comparing the Profession

Predictor	n	Mean (y)	SD	95% CI	P value
Academician	34	23.53	15.39		
IT Professional	86	13.37	7.36		
Management professional	87	13.17	6.38		
Business Owner	50	18.67	8.73		
Student	124	9.65	5.37		
Others	24	26.83	11.36		
Difference				-4.19, -5.29	< 0.001

There are observations for six different professions: Academician, IT Professional, Management Professional, Business Owner, Student, and Others.

Each profession has a different number of observations (n) ranging from 24 to 124.

The mean value of the predictor variable 'y' varies across the professions, ranging from 9.65 to 26.83.

The standard deviation (SD) also varies across the professions, indicating the variability in 'y' within

each professional category.

The 95% confidence interval for the difference between the means of the different professions is given as -4.19 to -5.29.

The p-value associated with the t-test is less than 0.001, indicating that the difference between the means of the professional categories is statistically significant.

H5e: There is significant difference among Qualification of online electronic goods consumers with respect to retail atmospherics.

Table 4.31. t-test comparing the Qualification

Predictor	n	Mean (y)	SD	95% CI	P value
Non-Graduate	67	23.37	9.89		
Graduate	169	18.28	8.03		
Post Graduate	169	18.65	8.03		
Difference				-3.56, -5.34	< 0.001

There are observations for three different levels of qualification: Non-Graduate, Graduate, and Post Graduate.

Each qualification category has a different number of observations (n) ranging from 67 to 169.

The mean value of the predictor variable 'y' varies across the qualification categories, ranging from 18.28 to 23.37.

The standard deviation (SD) also varies across the qualification categories, indicating the variability in 'y' within each qualification category.

The 95% confidence interval for the difference between the means of the different qualification categories is given as -3.56 to -5.34.

The p-value associated with the t-test is less than 0.001, indicating that the difference between the means of the qualification categories is statistically significant.

H5f: There is significant difference among Schooling/Primary education place of online electronic goods consumers with respect to retail atmospherics.

Table 4.32. t-test comparing the Schooling/Primary education

Predictor	n	Mean (y)	SD	95% CI	P value
Major Town	189	4.56	2.45		
State Capital	154	6.94	4.34		
Village	62	12.45	6.48		
Difference				-5.42, -4.03	< 0.001

There are observations for three different schooling location categories: Major Town, State Capital, and Village.

Each schooling location category has a different number of observations (n) ranging from 62 to 189.

The mean value of the predictor variable 'y' varies across the schooling location categories, ranging from 4.56 to 12.45.

The standard deviation (SD) also varies across the schooling location categories, indicating the variability in 'y' within each category.

The 95% confidence interval for the difference between the means of the different schooling location categories is given as -5.42 to -4.03.

The p-value associated with the t-test is less than 0.001, indicating that the difference between the means of the schooling location categories is statistically significant.

H5g: There is significant difference among Income (P.M) of online electronic goods consumers with respect to retail atmospherics.

Table 4.33. t-test comparing the Income (P.M)

Predictor	n	Mean (y)	SD	95% CI	P value
Below 25000	169	6.38	3.46		
25001-50000	125	7.83	4.84		
50001-75000	44	13.90	11.20		
75001-100000	33	12.78	9.49		
Above 100000	34	12.73	8.99		
Difference				-5.42, -4.03	< 0.001

There are observations for five different income brackets: Below 25000, 25001-50000, 50001-75000, 75001-100000, and Above 100000.

Each income bracket has a different number of observations (n) ranging from 33 to 169.

The mean value of the predictor variable 'y' varies across the income brackets, ranging from 6.38 to 13.90.

The standard deviation (SD) also varies across the income brackets, indicating the variability in 'y' within each bracket.

The 95% confidence interval for the difference between the means of the different income brackets is given as -5.42 to -4.03.

The p-value associated with the t-test is less than 0.001, indicating that the difference between the means of the income brackets is statistically significant.

Summary of the Hypothesis Testing

Table 4.34: Hypothesis Summary

Objectives	**Hypothesis** **(Hypothesis and Sub hypothesis for fulfilling the objective)** ***(Ignore if not applicable for certain objectives)***	**Hypothesis Accepted / Rejected**

To study the effect of shopping factors on retail atmospherics of consumers buying online electronic goods.	H1: There is significant effect of shopping factors on retail atmospherics	Alternate Hypothesis H1 is **accepted**
To study the effect of de-shopping factors on retail atmospherics of customers buying online electronic goods.	H2: There is significant effect of de-shopping factors on retail atmospherics.	Alternate Hypothesis H2 is **accepted**
To study the effect of retail atmospherics on buying of online consumers of electronic goods.	H3: There is significant effect of retail atmospherics on buying behaviour	Alternate Hypothesis H3 is **accepted**
To study the moderating effect of social media reviews on buying behavior of online consumers of electronic goods.	H4: There is significant moderating effect of social media / reviews on buying behaviors.	Alternate Hypothesis H4 is **accepted**
To study the effect of the demographic profile of online buyers of electronic good on retail atmospherics	**H5a:** There is significant difference among age groups of online electronic goods consumers with respect to retail atmospherics. **H5b:** There is significant difference among Marital Status of online electronic goods consumers with respect to retail atmospherics. **H5c:** There is significant difference among Type of Family of online electronic goods consumers with respect to retail atmospherics. **H5d:** There is significant difference among Profession of online electronic goods consumers with respect to retail atmospherics. **H5e:** There is significant difference among Qualification of online electronic goods consumers with respect to retail atmospherics. **H5f:** There is significant difference among Schooling/Primary education place of online electronic goods consumers with respect to retail atmospherics. **H5g:** There is significant difference among Income (P.M) of online electronic goods consumers with respect to retail atmospherics	Alternate Hypothesis H5a is **accepted** Alternate Hypothesis H5b is **accepted** Alternate Hypothesis H5c is **accepted** Alternate Hypothesis H5d is **accepted** Alternate Hypothesis H5e is **accepted** Alternate Hypothesis H5f is **accepted** Alternate Hypothesis H5g is **accepted**

10. Research Contributions

- Investigating how Bangalore's unique cultural and technological landscape influences consumer preferences in electronic goods and gadgets can contribute to a deeper understanding of localized consumer behavior.

- Examining the factors that drive or inhibit the adoption of e-commerce for electronic goods in Bangalore can provide insights into the evolving trends and challenges in the e-tailing sector.
- Analyzing the effectiveness of digital marketing strategies in influencing consumer decisions can contribute to the broader understanding of how online promotions and advertising impact purchasing behavior.
- Studying brand loyalty patterns in the context of electronic goods and gadgets in Bangalore can offer insights into the factors that contribute to sustained customer loyalty and trust in the e-tailing space.
- Investigating how consumers in Bangalore navigate and utilize various online channels (e.g., websites, mobile apps) for electronic purchases contributes to the understanding of cross-channel shopping behavior.
- Examining how consumers in Bangalore respond to and adopt emerging technologies and innovations in electronic goods provides valuable insights for businesses looking to introduce new products to the market.
- Assessing the impact of regulatory frameworks and government policies on e-tailing in Bangalore can contribute to discussions on creating an environment conducive to e-commerce growth.
- Analyzing the competitive landscape and market dynamics within the e-tailing sector for electronic goods in Bangalore can provide strategic insights for businesses and policymakers.
- Investigating how trust and security concerns influence consumer decisions in online transactions contributes to understanding the challenges and opportunities in building consumer confidence in e-tailing.
- Providing practical recommendations for businesses based on the research findings can help e-tailers tailor their strategies to better meet the needs and preferences of consumers in Bangalore.

11. Findings and Conclusions

The results of the many tests that were performed to look at and analyze consumer purchasing patterns about online shopping for electronics in the preceding chapter make up the research findings of the study. For several years, people have been shopping for electronic items through online portals, and the various variables have made it easier to analyze the varied components of their buying behaviors. The modern e-commerce era is creating a desire and motivation for online shoppers to perform shopping exercises on their gadgets, and it was discovered with the aid of statistical data and the literature reviewed from different fields and inter-disciplines that consumer preferences are dynamic and ever-changing with changes in technology. Social media was found to be a significant moderating effect in consumers' propensity to shop online for electronic items. They also looked at the elements they view on a daily basis that impact their purchasing behaviors. Conversely, retail atmospherics serves as a moderating element in the decisions made about whether to shop for or avoid a product.

Hypothesis Interpretations:

H1: There is a significant effect of shopping factors on retail atmospherics.

This hypothesis suggests that certain factors related to the shopping experience, such as store layout, product display, lighting, music, and cleanliness, influence the perception of the retail atmosphere. The hypothesis posits that these shopping factors play a significant role in shaping consumers' perceptions of the overall environment within a retail space.

H2: There is a significant effect of de-shopping factors on retail atmospherics.

This hypothesis proposes that factors contributing to de-shopping behavior, such as long queues, crowded spaces, unavailability of desired products, and poor customer service, impact the retail atmosphere negatively. It suggests that these de-shopping factors significantly influence consumers' perceptions of the retail environment, potentially leading to dissatisfaction and reduced engagement with the store.

H3: There is a significant effect of retail atmospherics on buying behavior.

This hypothesis states that the ambiance, layout, design, and overall atmosphere of a retail space significantly impact consumers' purchasing behavior. It suggests that a pleasant and engaging retail atmosphere positively influences consumers' buying decisions, leading to increased sales and customer satisfaction.

H4: There is a significant moderating effect of social media/reviews on buying behaviors.

This hypothesis suggests that social media and online reviews play a significant role in moderating or influencing consumers' buying behaviors, particularly in the context of retail atmospherics. It proposes that online feedback, recommendations, and reviews impact how consumers perceive and interact with the retail environment, ultimately influencing their purchasing decisions.

H5a to H5g: These hypotheses explore potential differences among demographic or socioeconomic.

Groups in their perceptions of retail atmospherics. Each hypothesis focuses on a specific demographic or socioeconomic variable (age groups, marital status, type of family, profession, qualification, schooling/primary education place, and income) and examines whether there are significant differences in how individuals within these groups perceive the retail environment. These

hypotheses aim to identify potential variations in consumer preferences and behaviors based on demographic or socioeconomic factors.

Justification for Results:

The justification for using tests for normality (skewness, kurtosis), regression analysis, and t-tests for the hypotheses listed can be outlined as follows:

Tests for Normality (Skewness, Kurtosis):

Skewness and kurtosis tests are essential for assessing the distributional characteristics of the data. They help determine if the data follow a normal distribution, which is often an assumption in statistical analyses like regression and t-tests. For hypotheses H5a to H5g, where differences among demographic or socioeconomic groups are explored, it's important to ensure that the data distributions are approximately normal within each group to justify subsequent parametric analyses.

Regression Analysis:

Regression analysis is appropriate for hypotheses H1, H2, and H3, which involve examining the relationships between variables. For H1 and H2, regression analysis can help assess the impact of shopping factors and de-shopping factors, respectively, on retail atmospherics. For H3, regression analysis can evaluate how retail atmospherics influence buying behavior. Regression allows for the examination of the strength and direction of these relationships, controlling for potential confounding variables.

t-Tests:

t-tests are suitable for hypotheses H4 and H5a to H5g, which involve comparing means between

different groups. For H4, a t-test can assess whether there is a significant difference in buying behavior between groups moderated by social media/reviews. For H5a to H5g, t-tests can determine if there are significant differences in perceptions of retail atmospherics across different demographic or socioeconomic groups. These tests are valuable for identifying potential variations in consumer behavior and preferences based on various factors.

Several significant discoveries were integrated and documented in the preceding chapters, drawing from the research conducted.

- While shopping online, demographic factors like age, gender, and income have a substantial association. The purchasing habits of consumers are influenced by their age groups and the cities in which they live. The importance of expenditure for consumers purchasing electronic items online is determined by their income and purchasing power.
- Given that many male customers purchase electronic items online with female buyers, gender has no discernible effect on the age group. There used to be a belief that female consumers made more internet purchases than male consumers. Almost all consumers, regardless of age group, have the same reason for making purchases because they spend most of their time shopping online, especially for electronics.
- Income has no discernible effect on the age or gender of the buyers, and the majority of them are taking out loans and EMIs to buy electronics. Preference gaps are no longer a problem thanks to ease of purchase. The only possible reason for a delay in purchases is income and budgeting.
- Major cities and capitals account for the majority of the study's customer base, indicating that the study's scope is restricted to urban consumer purchasing behavior.
- Comparing mobile phones and their accessories to laptops, personal computers, and other products, the majority of consumers prefer to buy them online. Electronic items are the second

most popular online purchasing category behind groceries when it comes to consumers' overall buying preferences across various categories. This suggests that a certain type of consumer is making the majority of the goods purchases online.

- Electronic goods buying and de-shopping are closely related since consumers frequently purchase and return items, and online retailers have implemented a variety of return policy changes. More often than not, consumers are returning electronic gadgets because to rigged or broken issues, rather than other reasons like delayed delivery or incorrect purchases.
- Electronics are pricey and in high demand, thus it's very tough to de-shop a product without a valid reason. Up to two gadgets can be ordered at a time using several e-tailer apps. Additionally, it "de-motivates" customers to stop shopping online without giving a cause.
- Retail environments play a big role in the purchase of electronics since many customers prefer to inspect and research products in physical stores rather than making their purchases online because some offline retailers have better deals than those found online.
- Social media plays a big role in influencing customer purchasing behavior when it comes to online shopping, and online reviews have a stronger persuasive power when it comes to online shopping. According to 208 research participants, social media is their preferred source of information when compared to other sources. Customers thoroughly investigate products before making a final purchase. Visual reviews have a more lasting impression on purchasers' thoughts than printed reviews do. With the availability of product reviews, consumers are observed to be delaying their purchases of electronic items in order to make better decisions.
- In the case of social media, which has a strong correlation with social buying behavior, it is also seen to be making consumers lazy. A wave of influencers is providing multiple opinions about electronic goods, and with new gadgets being released on a daily basis, consumers are becoming

confused and delaying their purchases due to the abundance of available information.

To draw the conclusion that consumer demand for electronic goods has increased, and that this demand, along with the constant urge to buy products, is making purchase behavior more complex. On the plus side, this is posing a number of creative challenges and new ideas for e-tailers. The process of purchasing products is never-ending, and as technology advances, so too will consumer purchasing patterns.

12. Limitations of the Research

- A descriptive analysis of the variables influencing customer purchasing decisions for electronic items is not covered by this study.
- This study is exploratory, meaning that biases may have occurred throughout the assessment process that the researcher was unable to completely rule out.
- The report does not go into great detail about how customers feel about making purchases online for other categories including food, clothes, travel, and entertainment.
- The study did not examine how different electronic products subcategories compare to one another in terms of purchasing patterns.
- The report does not address artificial intelligence's place in the evolving consumer landscape and how it affects the purchasing process.
- The study does not address how changes in post-COVID practices are impacted by customer purchasing behavior.

Because the survey was limited to Bengaluru and its surrounding suburbs rather than other Tier 2

and Tier 3 cities, the findings about consumer purchasing patterns may differ.

13. Scope of future work

The goal of the current study is to evaluate online consumers' e-tailing purchasing behavior and their strong desire to purchase electronic items. The goals were to investigate the important roles played by buyer buying and de-shopping behaviors, as well as consumer affinities with online reviews and the impact of social media. Nevertheless, there are a number of underlying areas that the researchers might explore in the future, as listed below.

- What are the driving forces behind the rise in online sales of gadgets and upgraded technologies among consumers?
- What expanding body of work in the field of artificial intelligence, particularly in determining online aesthetics and atmospherics, can make online shopping more convenient for consumers and e-tailers alike?
- How online retailers should create new guidelines and grow from their failures in the face of an impending competitive era marked by the rise of e-commerce behemoths in the marketplace and the release of super applications.
- How customers are making purchases across several categories, particularly in light of the COVID-19 epidemic and modifications to delivery and safety regulations.
- Customers are leaving the delivery system through the cash mechanism, as seen by the rising demand for online transactions made possible by UPI payments.
- The impact of social media on consumer psychology, particularly among teenagers aged 15 to 18, who are more likely to shop online, provides a framework for understanding teenage consumer buying psychology.

- Many studies that are conducted in the subcategories of electronic goods, particularly to the ancillary products like smart watches, EarPods, TV sticks, Voice AI boxes, and 3D design back that can be connected with mobile phones, laptops, or television sets, can be used to predict how in demand electronic goods will be.

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