Evaluating strategies for consumer trust in e-commerce

By

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Dedication

This dissertation is dedicated to my parents, Veena and Sumera Dhaja, whose unwavering support and encouragement have been my guiding light. Your belief in my potential has inspired me every step of the way.

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I would like to express my deepest gratitude to a few individuals who are dear to me and have contributed to the completion of this study.

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Abstract

This study evaluates strategies in e-commerce to enhance consumer trust. In light of the post-COVID-19 pandemic, there is a notable gap in the literature concerning the shift towards technological environments and increased consumer engagement with online platforms. The primary objective of this study is to evaluate and analyse the impact of consumer trust on e-commerce platforms. The study design adopted in this dissertation follows a systematic review approach. A qualitative approach is used, employing the Preferred Reporting Items for Systematic Reviews and Meta-Analyses framework to identify the most suitable articles. Additionally, a desktop approach has been followed to collect secondary data. The findings of this study reveal that there is a wide range of e-commerce platforms available, with a noticeable shift in consumer behaviour. Several strategies are being developed to improve customer satisfaction. These results suggest that practical contributions need to be made in the future. This study contributes valuable insights for consumers using e-commerce platforms and others engaged in online business transactions. It aims to bridge the gap in understanding consumer trust within e-commerce by proposing new strategies for the evolving technological landscape. The results of this study will have practical implications for businesses, consumers and policymakers involved in e-commerce, potentially promoting greater adoption of these platforms

Keywords: e-commerce, consumer behaviour, consumer trust, empirical trends of e-commerce

Table of contents

List of abbreviations

Abbreviation	Full Term
AI	Artificial Intelligence
API	Application Programming Interface
AR	Augmented Reality
B2B	Business-to-Business
B2G	Business to government
C2G	Consumer to government
B2C	Business-to-Consumer
CeCO	Chief E-commerce Officer
COVID-19	Coronavirus disease
CRM	Customer Relationship Management
CRO	Conversion Rate Optimization
CSF	Critical Success Factor
CTR	Click-Through Rate
ECT	Expectancy confirmation theory
ERP	Enterprise Resource Planning
eWOM	Electronic Word of Mouth
GDPR	General Data Protection Regulation
HTTPS	Hypertext Transfer Protocol Secure
ICT	Information and Communication Technology
IoT	Internet of Things
KPI	Key Performance Indicator
M-commerce	Mobile Commerce
PPC	Pay Per Click
PRISMA	Preferred Reporting Items for Systematic reviews and Meta-Analyses.

PWA	Progressive Web Application
SaaS	Software as a Service
SCRM	Social Customer Relationship Management
SDLC	Systems Development Life Cycle
SEM	Structural Equation Modelling
SEO	Search Engine Optimisation
SMEs	Small and Medium Enterprises
SSL	Secure Sockets Layer
TAM	Technology acceptance model
UI	User Interface
UTAUT	Unified Theory of Acceptance and Use of Technology
UX	User Experience

Chapter one introduction and background of the study

1.1 Introduction

E-commerce has revolutionised consumer and business interactions, offering unprecedented convenience and global reach (Bauman & Bachmann, 2017). However, challenges such as consumer trust and security remain critical. Trust is pivotal in e-commerce, influencing consumer behaviour and transaction willingness, as highlighted by Bauman and Bachmann (2017). Therefore, understanding consumer behaviours shaped by convenience, pricing and accessibility, and developing robust trust-building strategies are essential for e-commerce success. Authors Haryanti and Pribadi (2019) further highlighted the importance of e-commerce highlighting that e-commerce plays an important role in economic growth. A key highlight has also shown that e-commerce has changed the way consumers shop (Haryanti & Pribadi, 2019). In extant literature, Risberg (2023) discusses the importance of e-commerce logistics and omni-channel decision frameworks. Online shopping is growing the fastest and selling through different channels is becoming the new normal. To ensure products move smoothly between these channels is important, especially because customers now expect easy and hassle-free shopping (Risberg, 2023).

This study evaluates strategies for consumer trust in e-commerce. This chapter sets the tone for the study by providing an overview of the strategies for building consumer trust in e-commerce. It includes the background of the study and the research problem. It further outlines the research aim, objectives, questions, rationale and the significance of this study. The structure of this dissertation is also presented in this chapter so that readers can navigate smoothly.

1.2 Background of the study

E-commerce was first introduced in the 1990’s focusing on platforms to engage in online shopping, however, this is still developing due to the advancement of technologies and artificial intelligence (Alyoubi, 2015). Alwan, Hu, Al Asbahi, Al Harazi and Al Harazi (2023) discuss the current situation and the coronavirus disease, COVID-19, pandemic which accelerated online shopping adoption, exposing platform strengths, weaknesses and the ways consumers have adapted to a lifestyle of using e-commerce as a part of their daily lives. The growing popularity of e-commerce has enhanced business interactions between consumers, retailers, and enterprises, while the global internet usage rate has also increased (Alwan et al., 2023) .Alwan (2023) further state that, as a result of increased internet growth, there is now an increased online audience, an increase in online demand, supply chain disruption, extended delivery time and difficult movement control. To quantify the growth of showing an increase of the online audience in e-commerce, Salunkhe (2023) findings show that the e-commerce industry in India became one of the fastest-growing sectors during the pandemic, as it continued providing essential goods while following COVID-19 guidelines. This led to a 21.5% growth in 2022, reaching $74.8 billion, with projections of 84% growth to $111 billion by 2024 and $350 billion by 2030. Mobile shopping, driven by the widespread use of smartphones and social media, plays a key role in this growth. Additionally, the adoption of mobile wallets and payment apps has further boosted the industry (Salunkhe, 2023).

The definition of e-commerce is the transaction or process of purchasing items, making an offer to purchase item on sale or transferring goods, services or information over any digital platform. For example, mobile cell phones, desktops or laptops (Kedah, 2023). From a broader view, e-commerce is a system which engages with many areas of business-like customer support, vacancies and even some business partner interactions. The commercial activities that take the form of different delivery networking technologies such as payment platforms, emails, adverts, and many such activities must be available to consumers directly or indirectly (Kedah, 2023).

While the definition of e-commerce above is presented, Baltierra (2023) defines e-commerce as the form buying, selling, or exchanging goods, services, and information through computer networks. It is a part of e-business, which also includes business partnerships, customer support, and job opportunities. Besides internet access, e-commerce requires databases, email, delivery systems, and payment methods. Since it operates electronically, customers can shop from anywhere without being physically present. With increasing internet access in major Indonesian cities, this is an important time for businesses to develop e-commerce services, as it remains underutilized in the country.

Zennaro, Finco, Calzavara and Persona (2022) defines ecommerce as a form of economic activity that is conducted via any electronic form of connection. By using e-commerce there are many advantages when it comes e-commerce strategies (Zennaro et al., 2022). One of the advantages described in e-commerce that it does not require anyone to be physically present but it can be done anywhere or anytime according to Campisi, Russo, Tesoriere, Bouhouras and Basbas (2021).

When comparing both the definitions from Baltierra (2023) and ((Kedah, (2023), it is evident that an exchange of either a product or service must take place. This may come from either a customer or business (Campisi et al., 2021). But it is evident from all sources above that define-commerce must take form electronically either an email, website or even a telephonically call between the different users such as customers or businesses.

Soleimani (2022) points out that, although there has been rapid growth of e-commerce use in the market by consumers and organisations, there are concerns regarding the privacy and security around transactions in e-commerce by consumers and businesses that use these platforms; it has put consumer trust into jeopardy. Thus, the need to reduce consumers perceived risk has promoted the urgency behind evaluating strategies for building consumer trust in e-commerce. A notable argument that Bell, McCloy, Butler and Vogt (2020) stress is that, although it has been more than 20 years since the emergence of e-commerce, there are still concerns about the secondary use of personal information obtained from consumers when dealing with e-commerce. The concerns raised by consumers regarding risk and trust revolve around whether familiarity is key to reducing fear and maintaining positive emotions that encourage the use of e-commerce. Despite the urgency to address the privacy and security barriers for e-commerce users, there has been a growth of users using e-commerce, due to the COVID-19 pandemic. This has resulted in limited safety measures and the greater need for studies to increase consumer trust by evaluating strategies for them (Bell et al., 2020). Although e-commerce can be rewarded for the efficiency of its model, consumers still feel at risk, uncertain and strained when shopping online; this leaves space for further evaluation of strategies to support e-commerce (Sorebo, 2018).

In their study, Wu and Huang (2023) maintain that, for trust to occur, there must be two parties one of whom appears to have more to gain than the other. In the same study, it is claimed by the authors that consumer trust is a smart way to make transactions easier and cheaper; that it is a sign of progress. Wu and Huang (2023) further state that trust can be measured in three ways: quality of the product or service, the recommendations for that specific product or service and the trustworthiness of the organisation.

In a similar study by Hidayat, Wijaya, Ishak and Endi Catyanadika (2021) it is argued that for a purchase to transact, trust must be present. Trust does not simply happen however, If trust is built between the parties over a certain period, risk will be minimised (Hidayat et al., 2021). Some of the risks factors need to be minimised are fraud, malware and system errors (Hidayat et al., 2021). In addition, to consumer/supplier trust, there are many factors which affect consumer trust like the psychological well-being of consumers and the thoughtfulness in purchasing a product online. In addition, Soleimani (2022) explores factors influencing buyers trust and mistrust in e-commerce platforms. Customers trust sellers when they expect them to act fairly and fulfil their promises. Studies show that trust influences both transactions and long-term loyalty (Soleimani, 2022).

Community trust involves trusting multiple buyers or sellers in an online marketplace, even without prior interactions according to Amofah and Chai (2022). Technology trust refers to consumers relying on online platforms to ensure security, accurate product details, and customer support. While much research focuses on buyers trusting sellers, sellers also need trust in buyers to engage in transactions despite uncertainties (Amofah & Chai, 2022). Hidayat et al., (2021) found that consumer's decisions to buy through online platforms were positively influenced by their interest in buying, perceived value, and trust. This suggests that e-commerce businesses must focus on building trust and ensuring secure and convenient transactions. Consumers are more likely to buy if the benefits and ease of shopping, outweigh the risks and costs involved. Positive perceptions of value and trust significantly boost consumers interest in online shopping (Hidayat et al., 2021).

In support of consumer behaviour and trust, Rita and Ramos (2022) extant literature were that consumer behaviour positively influenced by e-commerce in general. However, in there are many advantages which outweigh the risks such as e-commerce being practical and convenient (Rita & Ramos, 2022). However, many consumers remain cautious about online shopping due to frequent fraud cases. Therefore, e-commerce companies must prioritise strategies that enhance trust to attract more customers.

1.3 Problem statement

While trust building strategies in e-commerce have been explored previously, trust by consumers using e-commerce has remained underexplored. This is a topic that increasingly develops as digital technologies transform global commerce, enabling widespread access to online vendors. As a result, online trust has become paramount, impacting consumer decisions and shaping long-term business relationships (Mayayise, 2023). Current studies of consumer behaviour in e-commerce or the development of e-commerce and consumer behaviour often focus on trust factors such as website security customer reviews but these do not determine the development of technologies and they are transparent, what the user experience is or customer satisfaction Mayayise (2023) states that while trust is crucial, other factors such as product quality, pricing and user experience also play significant roles in influencing consumer purchase behaviour. In a similar vein, Handoyo (2024) suggests that consumers may rely on other cues, such as brand reputation and third-party assurances to mitigate perceived risks.

Scholarly authors, like Mazhar et al~~.~~ (2022) and Srivastava and Kumari (2024) emphasise that the roles of security and transparency in e-commerce are not thoroughly investigated; nor is the way AI-driven customer service or blockchain-based transparency affect trust building in e-commerce. Furthermore, Mayayise (2023) points out that the advent of digital platforms has significantly increased consumer access to global markets, making trust a critical factor in online transactions. Similarly, Aisyah, Madyan and Prihantono (2020) claim that online trust reduces perceived risks and fosters consumer loyalty, thus playing a crucial role in shaping long-term business relationships and continuity.

Veeragandham, Patnaik, Tiruvaipati and Guruprasad (2020) examined consumer buying behaviour using e-commerce during the COVID-19 pandemic and found that the effect of e-commerce on consumer behaviour is driving businesses to attract more customers to enhance their shopping experience. Veeragandham et al. (2020) state that COVID-19 lockdowns pushed consumers to change their shopping habits, affecting their trust, costs, awareness, preferences, and emotional attitudes toward online shopping. The current study focuses on building consumer trust in e-commerce.

1.4 Research questions

The following research questions guide this study:

1. What are the various types of e-commerce platforms available for public use, and how do they differ in terms of features and functionalities.
2. How do consumers behave when using e-commerce platforms, and what factors influence their purchasing decisions?
3. What strategies can e-commerce platforms employ to effectively build and maintain consumer trust, considering both brand and consumer perspectives?

1.5 Research objectives

The following objectives guide this study:

1. To identify the various types of e-commerce platforms available for public use, and how do they differ in terms of features and functionalities
2. To understand what strategies can e-commerce platforms employ to effectively build and maintain consumer trust, considering both brand and consumer perspectives?
3. To investigate what strategies can e-commerce platforms employ to effectively build and maintain consumer trust, considering both brand and consumer perspectives?

1.6 Contribution of this study

This study offers insight into the rapidly evolving e-commerce landscape, addressing the critical aspect of consumer trust. By identifying key types of e-commerce and understanding consumer behaviour, businesses can better tailor their strategies to meet market demands. Moreover, the study focuses on trust-building strategies that provide frameworks for enhancing customer confidence. The findings are particularly relevant to increased online shopping post-

COVID-19, guiding businesses in adapting to new consumer expectations and ensuring sustainable growth in the digital marketplace. The major contribution is to consumers who will be able to identify methods, like business policies, which create a sense of trustworthiness in AI, block chain and transparent pricing for enhanced consumer satisfaction. This study also contributes to the body of knowledge for policy makers to restructure and improve on their frameworks; the developers of e-commerce platforms will be able to enhance their tools by creating more advanced trust building tools.

1.7 Rationale

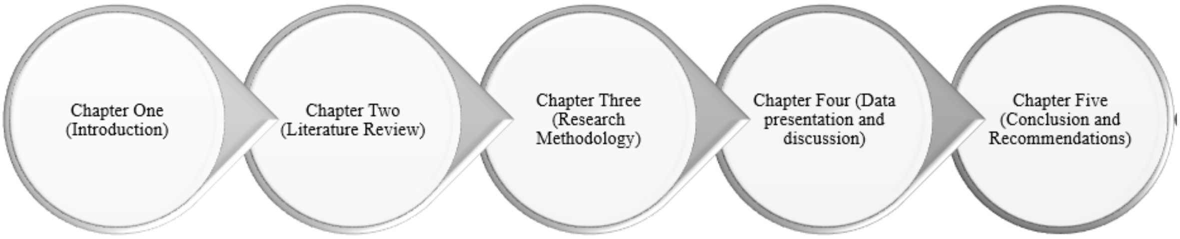
If this study is discontinued, it may result in significant challenges, including a lack of updated knowledge for businesses on the development of e-commerce platforms. This could leave them insufficiently prepared to address issues like cybercrime, which could ultimately pose serious risks to customers. There would be lost opportunities for improvement if e-commerce platforms neglect the opportunity to create a strategy that they can adapt for the development of new findings. This could lead to limited growth which will make addressing consumer concerns challenging. Ultimately, it would be a competitive disadvantage as businesses might experience slower progress if they do not prioritise consumer trust which could lead to a decreased market share and less customer loyalty.

The problem being explored is users who perceive e-commerce innovations as costly which impacts the adoption of different platforms. As a practical result, this study will contribute to users and their experiences, leaving them with cost effective solutions and the advantage of gaining trust when shopping. The magnitude of this study is significant in the world of developing technologies as cost, security and risk are globally relevant. The covid-19 pandemic affected everyone during the worldwide shutdown. Due the rapid growth of e-commerce, this study will link users of e-commerce internationally, regionally and locally.

1.8 Structure of the dissertation

This study comprises five chapters as shown in Figure 1.1

Figure 1.1 Structure of the dissertation or organisation of the study



Source: Own (2024)

Chapter one introduces the study by giving an overview of the topic. It covers the background, problem statement, research aim, questions, objectives, the reasons for the study, and its contribution.

Chapter two presents the literature review in line with the research objectives to support this study. Firstly, an expectancy confirmation theory framework is presented and discussed to support the objectives. The significance of the literature review is to increase the quality of the study and to introduce literature pertaining to tits objectives.

Chapter three describes the research approach applied in the study which uses the PRISMA method for data analysis. It covers the design, data-collecting strategies and analytical methods used to compile and examine information from different sources. By highlighting their relevance to the study's objectives, the chapter justifies the selected approaches. Furthermore, it explains the measures are taken to guarantee the validity and dependability of the results, providing an overview of the methodological approach.

Chapter four analyses data on trust-building tactics in e-commerce, incorporating theoretical insights and findings from several peer-reviewed journals. This study emphasises crucial elements that impact consumer trust, including security protocols, transparent regulations and effective customer service. The chapter further discusses issues such as data privacy and proposes methods to bolster customer confidence through modern technologies and enhanced processes. Based on this research grounded in data, the researcher offers recommendations for creating a reliable online buying environment.

Chapter five presents the conclusion and recommendations derived from the findings. The chapter highlights the significance of comprehending customer behaviour, executing efficient trust-building techniques and tackling security approaches in e-commerce. The chapter provides practical strategies for both e-commerce providers and customers to improve trust and happiness in online buying. Furthermore, it recognises the constraints of the study and proposes potential avenues for future research to enhance the e-commerce environment.

1.9 Chapter summary

The chapter introduces the study, setting the context for investigating e-commerce trust-building strategies through a desktop secondary approach utilising primary methods. It outlines the research problem, objectives and questions guiding the study, highlighting the importance of understanding consumer behaviour and trust in e-commerce platforms. The chapter further provides a brief overview of the significance of the study, emphasising its relevance in the evolving digital commerce landscape. Lastly, it outlines the structure of the dissertation, offering a roadmap of the subsequent chapters.

The next chapter reviews the literature relating to the topic.

Chapter two literature review

2.1 Introduction

This chapter reviews and critiques the literature on strategies for building consumer trust in e-commerce. The fast adoption of digital platforms by businesses during the Fourth Industrial Revolution (4IR) is primarily driven by technology improvements and the expansion of e-commerce. Nevertheless, this shift brings difficulties, such as ethical, cultural, and trust-related concerns that are widespread in the worldwide e-commerce environment. Despite the importance of trust in achieving success in e-commerce, the expansion of this industry is hindered by concerns over secure transactions and the legality of the internet, although it is dependent on legal and financial frameworks. Topics discussed in this study are e-commerce, technological development of e-commerce, consumer behaviour, consumer trust using e-commerce and strategies to build trust in e-commerce.

2.2 The concept of electronic commerce

E-commerce, also known as electronic commerce, is a process where businesses or consumers engage in transactions and these transactions may be the purchasing, selling, transferring or exchanging of products or services online (Alyoubi, 2015). The different platforms for e-commerce are B2B (Business-to-Business), B2C (Business-to-Consumer), C2C (Consumer-to-Consumer), and C2B (Consumer-to-Business); these different terminologies apply to the entire study undertaken when reference is made to electronic commerce (Alyoubi, 2015).

Jabar and Ogunsola (2022) provide an analytical review of e-commerce business models in their study. Business-to-Business (B2B) e-commerce involves electronic transactions of goods and services between companies, typically involving producers and wholesalers. The Business-to-Consumer (B2C) model includes transactions where businesses sell to consumers, often through online catalogs, but is more vulnerable to security issues due to personal information sharing (Jabar & Ogunsola, 2022). The Consumer-to-Consumer (C2C) model allows individuals to sell goods or services to other consumers online, such as through platforms like Jiji or OLX described by Alryalat et al. (2023). The Business-to-Government (B2G) model facilitates transactions and information exchange between businesses and governments, such as tenders and auctions (Alryalat et al., 2023). The Consumer-to-Government (C2G) model involves individual consumers interacting with the government, for example, paying taxes online according to Sharma et al. (2022). Lastly, the Government-to-Government (G2G) model involves transactions between two governments, such as when one country buys resources from another (Sharma et al., 2022).

Cheng and Feng (2022) explained B2G refers to the e-commerce model where businesses interact with the government for activities such as procurement, taxation, and policy implementation. In this model, the government acts as both the consumer and the regulator, allowing for efficient and transparent transactions. B2G also enables the government to better supervise and manage enterprises. On the other hand, C2G is a newer model that facilitates government interactions with individuals, though it is still in its early stages, mainly in developed countries like the U.S., where citizens report taxes online (Chen & Feng, 2022). In a supporting view, Zautashvili (2017) discusses the e-government maturity model based on the growth level of e-services delivery. In extant literature G2B interactions involve services exchanged between the government and businesses, such as information requests about taxes, licenses, and regulations. B2G enables businesses to discuss administrative processes and influence government policies Zautashvili (2017). G2G focuses on sharing data and conducting electronic exchanges between different government branches at various levels (Nikiforova et al., 2023)

E-commerce is usually associated with factors like perceived risk, awareness, cost factors, terms often associated with customer satisfaction according to Wang and Tian (2023)**.** Wang and Tian (2023) describe perceived risk in e-commerce as a situation where a consumer or an organisation who uses e-commerce, could be left with a negative impression or left in an unfavourable circumstance. The specific effects of e-commerce which may result in negativity are either the level of security adopted in the financial transaction process, data privacy concerns or trustworthiness. The definition by Muhammad et al., (2024) stresses that awareness is essential for the sustainability of e-commerce platforms and is increasingly linked to familiarity and trust. It involves understanding the benefits and risks of e-commerce, as well as recognising the significance of elements within the e-commerce ecosystem, including technology, business models, needs, advantages, risks and future trends**.**

The term cost in an e-commerce refers to the cost perception, high refers to users' 'belief in that innovation, products or services which may come at a high expense' (Tokar, Jensen & Williams, 2021). This application comes into effect where a cost which impacts consumers or organisations negatively impacts future willingness to engage in e-commerce. Cost is recognised as an important factor in the adoption of technologies, including e-commerce (Tokar, Jensen & Williams, 2021).

2.3 Advantages and disadvantages of e-commerce to consumers

In a study by Malekpour et al., (2020), the benefits of e-commerce to consumers are evaluated. Furthermore, the study conducted by authors Malekpour et al., (2020) states that the transaction of an e-commerce purchase is one of the most uncomplicated methods of shopping. Although there are many concerns around the transition to e-commerce many businesses have already transferred, as users and some consumers find it easy and cost effective.

Malekpour et al., (2020) point out that some of the specific categories such as B2C, B2B, C2C, have shown that their preference and performance increased after using the different platforms. Some of benefits mentioned by Malekpour et al. (2020) are that e-commerce systems are variable in that they arguably benefit some and disadvantage some. To support the advantages and disadvantages of e-commerce, the delivery response time is faster, and this applies to the amount of income growth, e-commerce is an easy platform to setup and operate, it is cost effective, and it is very convenient (Ruzinazarov, Achilova & Rakhmonkulova, 2023).

In supporting evidence Jeong (2021) extant literature found that the associations between different e-commerce types (B2B, B2C, and B2G) and demographic variables such as administrative district, occupation, and organization type. It found that while B2B and B2C share similarities in organization type, their associations with location and occupation differ. Expanding the analysis to include other e-commerce types like C2C, C2B, and G2C could provide more detailed insights. The study also highlights the need for a unified approach to e-commerce support policies and stricter tax regulations to address unfair competition and tax evasion in cross-border online transactions (Jeong., 2021).

According to Al-Lami and Alnoor (2021), e-commerce dramatically changes how consumers experience shopping by providing exceptional accessibility and ease. Online platforms allow customers to access a worldwide marketplace, allowing them to analyse and buy items or services from any location at any given moment. Furthermore, e-commerce often leads to customer cost reductions due to competitive pricing and the ability to access a broader selection of items (Al-Lami & Alnoor, 2021). Nevertheless, despite these benefits, there are ongoing anxieties surrounding the privacy and security of data, as well as the absence of individualised engagement.

Dai et al., (2022), elaborate on how data breaches and identity theft erode consumer confidence in online purchases, while the lack of in-person connection reduces the quality of customer service. Moreover, the digital gap worsens inequalities in accessing e-commerce possibilities, putting those with inadequate internet connection or technology proficiency at a disadvantage. It is crucial to comprehend and tackle these difficulties that revolve around the needs and preferences of consumers in order to build trust and promote inclusion in the e-commerce industry (Dai et al., 2022). In extant supporting literature by Liu et al., (2022) one of the most significant challenges in e-commerce is cybersecurity threats. While cybercriminals continue to develop methods of threats towards e-commerce, business also invest by protecting either their hardware or software (Liu et al., 2022). In argument, In the early days of online shopping, trust was a well-researched topic, with various models based on the technology acceptance model and theories like the theory of reasoned action and planned behaviour. Studies found that consumers were initially reluctant to share personal information. Positive attitudes influencing online purchase intention include perceived ease-of-use, web quality, and information security, while perceived risk is often seen as a negative factor (Strzelecki & Rizun, 2022). Survey-based studies revealed that consumers are generally aware of the risks associated with online shopping (Strzelecki & Rizun, 2022).

E-commerce, despite its benefits, poses challenges for consumers. According to Ai-Lami and Alnoor drawbacks include the inability to physically test products before purchase, the absence of personal interactions, delayed delivery times, limited cost and product feature comparison and the risk of product damage during transportation. E-commerce presents challenges for consumers, including more restricted customer service availability than physical stores. Additionally, Al-Lami and Alnoor (2021) and Dai et al. (2022) highlight the technical disadvantages like cybersecurity risks, the need for internet connectivity, credit card fraud concerns and ongoing software development requirements. These challenges underscore the complexities and vulnerabilities of the e-commerce landscape.

Individuals with limited internet connection or technical skills are negatively impacted by the digital gap, which exacerbates existing inequities through access to e-commerce. Because of this difference, there is a pressing need for inclusive solutions that take into account the various requirements and preferences of different customer groups. Taking action to address these challenges requires not just enhancing safety and providing better service to customers but also ensuring that everyone has equal access to possibilities for online commerce. Businesses could increase the trust of their customers and create more inclusivity within the e-commerce industry if they dedicated their attention to these areas. It is vital to mitigate the issues created by the digital divide and to create an online economy that is both equal and trustworthy.

In contrast, while the above writers recognise the positives of e-commerce, Alnoor (2021) analyses the technological drawbacks in more detail, such as the digital gap, which worsens inequalities in accessing e-commerce prospects. This problem highlights the need for comprehensive approaches to tackle the varied requirements and choices of customers, a viewpoint with which Al-Lami and Alnoor (2021) concur. The association of the two perspectives underscores a thorough comprehension of the e-commerce terrain, elucidating that while the advantages are noteworthy, they are accompanied by considerable obstacles that must be tackled to faster customer confidence and inclusivity.

2.4 Theoretical framework that underpins the study

This study analyses the trust dynamics and consumer preferences in e-commerce within the 4IR framework. It is anchored in the Expectancy Confirmation Theory (ECT), created by Richard Oliver in the late 1970s and 1980s (Shukla et al., 2023). The aim is to fill the gaps in the existing e-commerce literature, specifically emphasising consumer pleasure, trust, and perceptions about e-commerce. The study emphasises the importance of assessing trust-building strategies in the digital marketplace by analysing consumer trust trends and previous studies of e-commerce.

ECT originates from consumer research and social psychology, initially applied in marketing to understand consumer satisfaction and decision-making processes (Shukla et al., 2023). It emphasises the role of consumer satisfaction in influencing repurchases and loyalty and draws from applied psychology research on life and employment satisfaction. The theory assumes that consumers establish initial expectations, and any deviation affects satisfaction levels, akin to cognitive dissonance theory, where conflicting beliefs lead to psychological discomfort. The theory provides a robust framework for understanding consumer behaviour, particularly in e-commerce. The theory’s emphasis on consumer satisfaction, which is central to consumer trust, aligns closely with the focus of this study on evaluating strategies for consumer trust in e-commerce (Shukla et al., 2023).

The link between ECT and this study lies in the ability of the theory to explain how consumers’ pre-purchase expectations and post-purchase experiences influence their satisfaction and subsequent behaviour. In e-commerce, consumer trust is often built through fulfilling expectations regarding product quality, delivery times and customer service (Shukla et al., 2023). When these expectations are met or exceeded, consumer satisfaction is enhanced, which fosters trust, leading to repeat purchases and customer loyalty.

The study investigates trust dynamics and consumer preferences in e-commerce within the context of the Fourth Industrial Revolution (4IR), which is characterized by the integration of advanced technologies like Artificial Intelligence (AI), Internet of Things (IoT), and big data into daily life. The study predominantly employs Expectancy Confirmation Theory (ECT) as the theoretical framework to explore consumer behaviour. While other theories could be applicable, ECT was specifically chosen because of its strong focus on consumer expectations, experiences, and post-purchase behaviours, which are key to understanding trust in e-commerce environments.

The current study employs ECT to analyse how different strategies in e-commerce can either confirm or disconfirm consumer expectations, thereby impacting trust. For instance, transparent communication, reliable customer service and consistent product quality are all factors that can confirm consumer expectations, leading to increased trust. On the other hand, failure to meet these expectations can lead to dissatisfaction, erode trust and potentially result in loss of customers

ECT is ideal for this study because it offers a theoretical framework to understand how trust is built in e-commerce. It also helps businesses manage consumer expectations to strengthen and sustain trust. By using ECT, this study aims to pinpoint key factors that affect consumer trust in e-commerce and create practical strategies for businesses to improve customer satisfaction and loyalty.

If experiences exceed or meet expectations, it leads to positive confirmation, boosting satisfaction and trust. This trust is crucial for customer loyalty in e-commerce. In the context of the Fourth Industrial Revolution (4IR), consumer expectations are more complex due to technological advancements. ECT is ideal for understanding how digital systems meet or surpass these expectations, especially in post-purchase behaviour, where trust builds through repeated interactions and support. Unlike models like TAM or UTAUT, ECT emphasizes ongoing engagement and trust, making it more applicable for analysing long-term consumer behavior and trust in e-commerce. Its alignment with 4IR highlights how evolving technologies influence consumer satisfaction and trust, making it a comprehensive framework for this study.

The use of Expectancy Confirmation Theory (ECT) is supported by several authors in the context of e-commerce and consumer behaviour. Rosário and Raimundo (2021), Felix and Rembulan (2023), and Al-Lami and Alnoor (2021) highlight the importance of consumer expectations and satisfaction in online shopping environments, aligning with the principles of ECT. Krishnamurthy and Kumar (2015), Sharma, Sharma, and Kapoor (2022), and Hossain et al. (2024) also emphasize that trust in e-commerce is built through the confirmation or disconfirmation of consumers’ expectations, which is the foundation of ECT. Additionally, Badrinarayanan (2024) and Mayayise (2023) emphasise the critical role of trust in the long-term success of e-commerce platforms, reinforcing the relevance of ECT for understanding these dynamics.

2.5 The development of e-commerce

The technique of sending standardised business documents between computers was revolutionised by the advent of electronic data interchange (EDI), which was the impetus for the development of electronic commerce (Tian & Stewart, 2007). EDI was first introduced in the middle of the 1960s to enhance productivity in specific industries, such as retail and transportation (Tian & Stewart, 2007). One could implement EDI by digital processes instead of traditional paper-based operations, removing the need for physical paper. In the middle of the 1970s, the Accredited Standards Committee standardised this method and during the 1970s and 1980s, it gained more and more acceptance from the public (Tian & Stewart, 2007). EDI, which was the first wave of electronic commerce, made it possible for businesses to electronically exchange information, place orders and carry out electronic payment transfers, this led to a noticeable improvement in efficiency (Tian & Stewart, 2007).

Although adopting EDI presented several benefits to customers and organisations, it also presented challenges, including high implementation costs and technical concerns. Given the risks associated with EDI, by the late 1990s, less than 1% of businesses in Europe and the United States had implemented electronic data interchange (Simakov, 2020). The introduction of EDI as a transformative technology is well-supported by historical data, emphasising its role in the early development of e-commerce.

However, the analysis could benefit from a more critical examination of the factors that limited EDI's widespread adoption. The consideration of high implementation costs and technical challenges show that there is a need for a deeper exploration of these barriers in the context of different industries and the way they influenced the evolution of subsequent e-commerce technologies (Simakov, 2020). The introduction of EDI as a transformative technology is well-supported by historical data, emphasising its role in the early development of e-commerce (Simakov, 2020). However, a detailed analysis could result in a more critical examination of the factors limiting EDI's widespread adoption.

The arrival of the second generation of e-commerce, marked by the digital transaction of goods and services online, played a key role in the continued growth of e-commerce (Simakov, 2020). Internet applications were first developed for use in academic and research settings; however, it has since developed into a preeminent commercial platform (Simakov, 2020). The Advanced Research Projects Agency Network (ARPANET) was developed in the 1960s and it is possible to trace the origins of the modern Internet back to that period (Simakov, 2020). With a particular focus on research in high technology sectors, the ARPANET laid the groundwork for the vast, global network that would ultimately develop into the Internet (Simakov, 2020) This marked the beginning of the second wave of e-commerce, which enabled broad online trading of goods and services and made it possible for unique digital transactions and interactions. The shift from a research network to a commercial enterprise was the signal that marked the beginning of this wave.

The development of second-generation e-commerce effectively highlights the transition from academic networks to commercial use, setting the stage for modern e-commerce. However, any critique should extend to the limitations and challenges accompanying this shift. For instance, issues such as internet accessibility, early-stage cybersecurity concerns and the digital divide could be analysed to provide a more nuanced understanding of the early internet's commercialisation and its impact on global e-commerce adoption.

2.6 The future of e-commerce

Mohdhar and Shaalan (2021) emphasise the importance of e-commerce systems' architecture in shaping the omnichannel systems of the future. Advancements in inter-operability and decentralisation are necessary to enhance system relationships and address the last-mile delivery problem. Moreover, Mohdhar and Shaalan (2021) highlight the significant impact of Internet of things (IoT) and Artificial intelligence (AI) technologies on automating e-commerce design and improving customer experiences and supply chain visibility. They stress the importance of seamless inter-operability and decentralised decision-making for sustainable evolution in commercial systems.

Mohdhar and Shaalan (2021) offer a perspective on the future of e-commerce, particularly in the context of technological advancements. They emphasise that inter-operability and decentralisation align well with current trends, but this critique addresses potential challenges these innovations may face. For example, integrating IoT and AI technologies raises concerns about data privacy, cybersecurity and the digital infrastructure required to support such systems. Additionally, while the authors discuss the last-mile delivery problem, more attention could be given to the social and environmental impacts of these future e-commerce trends, particularly in developing regions.

Although there has been a considerable increase in online transactions, Africa's portion in worldwide e-commerce remains below 2%, indicating a notable discrepancy (Igue et al., 2019). This indicates that while the continent can expand, underlying obstacles and systematic issues prevent it from fully engaging in the global e-commerce sector.
Mohdhar and Shaalan (2021) highlight the way the IoT and AI could affect automation and the consumer experience, as well as the importance of decentralisation and inter-operability in e-commerce system designs. Data privacy, cybersecurity and the social and environmental consequences of these technologies are not addressed in their analysis but are in line with current trends. Also, they need to consider the unique challenges that areas like Africa have, as their e-commerce development is relatively slow compared to the rest of the world (Igue et al., 2019).

2.7 The need for e-commerce

E-commerce has been seamlessly integrated into daily lives, with the internet serving as an indispensable tool for various tasks like banking, communication and shopping. The exponential growth of e-commerce sales, surpassing $200 billion in 2010 alone, reflects a significant shift in consumer behaviour towards online shopping, with annual growth rates ranging from 20% to 25% (Laudon & Traver, 2020). Today, consumers increasingly turn to the Internet for product reviews and information, favouring online platforms over traditional phone directories. Therefore, the current study suggests that large and small businesses adapt to this trend to remain competitive, as consumers prefer to search online for products and services.

Laudon and Thaver (2020) emphasise the surge in e-commerce sales which demonstrates the transition to online purchasing, highlighting a fundamental shift in consumer behaviour with regard to interacting with goods and services. Regardless of their size, businesses must adapt to remain competitive throughout this transformation. The link between the aim of this dissertation and the need to understand customer behaviour in the context of this transformation is evident. This knowledge is vital for building trust tactics to establish and sustain consumer confidence in e-commerce platforms.

However, for business adaptation, firms need to adjust to the increasing prevalence of online buying, which shows the significance of digital transformation. Authors Laudon and Traver (2020) suggest that further research should evaluate the extent to which firms in various locations, and this is mostly evident in African countries, adjust to these changes and whether their tactics successfully address customer trust concerns. This research aims to enhance the understanding of how firms may effectively match their operations with customer expectations, thus bolstering trust and fostering sustained engagement in e-commerce (Laudon & Traver, 2020).

While it is evident that companies must evolve to stay competitive, any evaluation should consider how companies in some locations, especially in Africa, handle the issue. Businesses who can satisfy client expectations and establish trust might be influenced by the specific obstacles they encounter in different regions. Businesses may align with the digital revolution and tackle trust challenges particular to various regions, if adaption tactics are evaluated in varied situations.

Environmental, economic and social factors play a major role in e-commerce (Arif, Cheah, Seah, Loh & Jalaludin, 2024). According to Muhammad Arif et al (2024). Sustainability in e-commerce platforms needs an understanding of the different factors. The argument raised by them suggests the need for a balance between operational efficiency and economic performance; this includes environmental and social considerations. If there is a balance between the operational and economic factors which influence e-commerce, then e-commerce becomes sustainable. If there is no balance, challenges may arise in its use which may then lead to issues like cost challenges, security threats, and even technological issues, especially in developing countries (Muhammad Arif et al., 2024). It is crucial to address challenges to maintain sustainability and to ensure effectiveness; ethical business practices must be considered. In addition, the environment must be protected. If these challenges are addressed, then consumer trust may increase, and this may ultimately result in a positive business impact for businesses and their operational activities (Muhammad et al., 2024).

Faccia, Le Roux and Pandey (2023) hold that the development of technologies can be credited to the creation of e-commerce. Arguably, one of the most innovative ideas is the B2B and B2C models. Faccia et al. (2023) further claim that the B2B and B2C models are among the most innovative ideas to take place as they have infiltrated the traditional way of commercial structures by allowing a connection between consumers, manufacturers and sellers. The B2C and B2B models have allowed the evolution of different types of efficient functionalities and processes. However, despite the development of these models, the nature of the world remains the same when it comes to cybercrime, operational actives which are clear and environments that have a number of regulatory policies in effect; these factors also contribute to the limitation of digital growth and which need to be resolve (Faccia et al., 2023).

As a result of sustainability and technological advancements being key drivers of e-commerce in the modern world and its high success rate, long-term operations, ethical and technological advancements, such as the B2B and B2C models need to be protected as they contribute to the world economic growth (Faccia et al., 2023). To protect the economic growth globally, the integration of both e-commerce platforms can contribute to user trust and to create resilience in the global market.

2.8 Future of consumer behaviour in e-commerce

Eastman et al. (2023) suggest directions for future consumer behaviour in e-commerce. They advocate further investigation into decision-making processes, trust dynamics, social factors and technology adoption. Moreover, they recognise that there is a need to study consumer behaviour’s social and ethical dimensions (Eastman et al. 2023). They commend and recommend dedication to interdisciplinary research and encourage research articles of theoretical and practical value in consumer behaviour.

E-commerce, an important element of the modern business landscape, has undergone remarkable transformations (Natarajan, 2022). Natarajans (2022) study examines the nuances of various e-commerce business models, particularly emphasising the B2C model (Natarajan, 2022). Understanding e-commercial models makes it possible to appreciate the dynamic nature of online commerce and its far-reaching implications for businesses and consumers. Natarajan (2022) defines the B2C e-commerce model as a domain encompassing online retail transactions. This concept primarily focuses on the digital exchange of products and services from businesses to individual customers. B2C e-commerce has garnered immense attention due to its potential to facilitate convenient and flexible transactions for both consumers and sellers.

Given Eastman et al's. (2023) future strategy for comprehending consumer behaviour, the need for a thorough investigation into decision-making processes, trust dynamics, social impacts and technological uptake becomes paramount. Topics such as trust, social factors and technology are pertinent to the decision-making process in e-commerce, where the interplay between customers and digital platforms is complex and diverse. Eastman et al. (2023) advocate for multidisciplinary study which aligns with the dynamic character of e-commerce that functions at the convergence of technology, psychology, and sociology. This viewpoint is essential for creating comprehensive models that precisely represent the complexities of customer behaviour in digital settings.

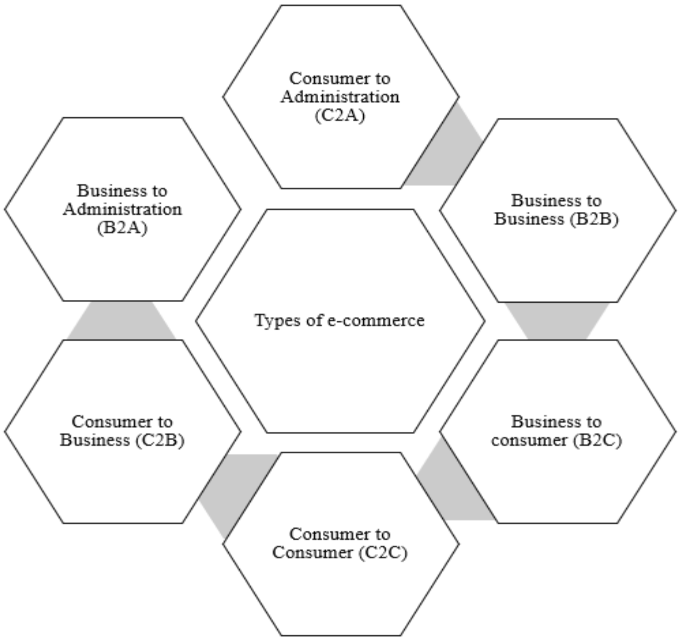
In contrast, Jain et al. (2021) classify e-commerce according to the kind of transactions and the connections between the parties involved. The B2C paradigm, which emphasises direct connections between firms and individual customers, is fundamental in consumer behaviour research. It is motivated by the need to comprehend and satisfy customer preferences, rendering it a central focus for study on trust and decision-making. Jain et al's. (2021) classification offers a systematic diagram for examining diverse e-commerce models crucial for comprehending the diverse dynamics involved in online transactions:

Figure 2.1 shows several types of e-commerce platforms currently available in the market for use by consumers or businesses using online business methods.

2.9 E-commerce platforms for users

Figure 2.1 illustrates the different types of e-commerce platforms available to different users. Anyone who uses these platforms is regarded as a customer.

Figure 2.1: e-commerce platforms for users



Source: Jain et al (2021)

Natarajan (2022) outlines the significance of the B2C model, emphasising its essential role in online retail transactions. The importance of this model resides in its capacity to enable easy and adaptable transactions, crucial factors in encouraging consumers to embrace e-commerce. A comprehensive understanding of the B2C model enables a more profound recognition of the consumer's function within the e-commerce ecosystem. It emphasises the significance of trust in promoting prosperous transactions. The B2C model is an essential framework for studying, establishing and preserving customer trust in online settings (Natarajan, 2022). Eastman et al. (2023) highlight potential areas of consumer behaviour for investigation in the future, with emphasis on decision-making, trust, social influences and the adoption of technology. This multidisciplinary approach is important for the changing nature of e-commerce.

Jain et al. (2021) presents a conceptual framework that elucidates several e-commerce models, focusing on the significance of the B2C model in examining direct customer engagements. Natarajan (2022) emphasises the significance of the B2C model in enabling adaptable transactions and the need to comprehend trust dynamics in e-commerce. These viewpoints jointly improve the understanding of customer behaviour in different e-commerce situations.

2.10 The importance of consumer trust marks in e-commerce

Trust marks is defined as an image, badge or logo which is normally displayed on an e-commerce product or website, according to Thompson et al. (2019). Trust marks indicate that specific e-commerce platforms are verified for use and offer a sense of trustworthiness and the reassurance that the operation behind them comes from a reputable organisation (Thompson et al., 2019).

Within e-commerce, trust is essential in determining customers' actions and choices about their purchases. Thompson et al. (2019) contend that the growing popularity of online marketplaces highlights the demand for solid trust-building procedures, especially when dealing with vendors unfamiliar to the buyer. Trust marks essentially institute trust guarantees posted on retailers' websites and have become necessary to boost customer confidence. The use of these products is linked to increased customer trust, decreased perception of risk and an increase in intended purchases. According to Thompson et al. (2019), the conclusion is consistent with the general idea that trust is essential in encouraging online transactions and generating a favourable experience for consumers.

The incorporation of trust marks into e-commerce platforms solves a fundamental problem and suggests that the perception of risk is held by consumers themselves (Thompson et al., 2019). Trust marks are a visible indicator that signals adherence to security and privacy norms, thus reducing worries connected to fraud and data abuse. These trust marks assist in mitigating the concerns associated with online purchasing by offering guarantees that are both visible and credible. As a result, they encourage customers to continue their purchases (Thompson et al., 2019).

Building upon this idea, the influence of trust marks goes beyond the judgments made immediately about purchases; Nguyen, Nguyen, Nguyen and Tran (2023) stress the assurance that trust marks significantly foster long-term customer trust and loyalty. Consequently, this indicates that spending money on trust marks and displaying them prominently may result in significant advantages for online businesses (Nguyen et al., 2023). These benefits include increased early sales and the development of long-lasting connections with customers. According to Nguyen et al. (2023), it is essential for retailers aiming to establish themselves in competitive and developing areas to include trust marks in their e-commerce strategies The two-fold effect of trust marks highlights the necessity of adding them into retail strategies. Consumer confidence in e-commerce is critical since it directly impacts purchase choices and overall customer happiness (Chen et al., 2024). Moreover, they hold that trust marks play a crucial role in fostering trust, especially in online markets where customers may be unfamiliar with sellers. Trust marks serve as institutional assurances, informing customers that a shop complies with specified security and privacy requirements, lowering the perceived risk associated with online purchases (Chen et al., 2024).

In a similar vein, Lin (2022) submits the dual benefit of trust marks, which increase early sales while fostering long-term customer trust and loyalty. This long-term trust is especially vital for online firms because it may result in repeat purchases and favourable word-of-mouth recommendations, both of which aid in development in competitive marketplaces. The intentional implementation of trust marks into e-commerce platforms is, therefore, more than simply a compliance issue; it is an essential component of a successful retail strategy. This highlights the importance of e-commerce enterprises investing in trust-building strategies, which are expected to offer significant customer confidence and loyalty benefits (Lin, 2022).
Lin (2022) discusses the vital significance of trust marks in diminishing customer risk perception and promoting trust in online commerce. Trust marks are visual symbols that increase client trust and promote transactions, especially with businesses that customers are not acquainted with. The impact of trust marks on sales and customer loyalty is contingent upon their visibility and legitimacy. It would be useful to include possible constraints in the conversation about trust marks, such as consumer doubt about them or differences in their influence across various markets.

In summary, trust marks e-commerce strategy is critical for mitigating the inherent hazards of online purchases. According to the literature, trust marks are vital in decreasing customer risk perception and promoting long-term loyalty. It makes them an essential tool for e-commerce platforms looking to prosper in a competitive and developing industry. The emphasis on trust marks is consistent with the overall goal of this research: to analyse ways to increase customer trust in e-commerce. However, there are still questions around how trustworthy trust marks really are: ‘Can they be copied?’ ‘Are they too good to be true?’

2.11 Principles of building consumer trust

Jain et al. (2021) explains that while trust is important for most traditional businesses, it is even more crucial for e-commerce. This is often referred to as e-trust. This is because online businesses lack the usual signals of trust, like face-to-face interactions and body language. The virtual environment also creates a sense of insecurity and doubt, making people feel it might not be reliable. Since trust can be understood in many ways, it is challenging to measure it accurately. Moreover, the lack of control in virtual environments creates a sense of insecurity and the perception that it cannot be trusted (Jain et al.,2021). Given that the idea of trust may be defined in various ways, there are many challenges associated with measuring it.

The number of interactions between the trustor and the trustee is based on the trustor’s perceptions of the trustee’s competence and the contextual intricacies enveloping their relationship. In the context of this study, trust emerges as the nurturing environment wherein all elements of paramount significance to human existence can thrive and prosper (Jain et al., 2021). This essential facet of trust is not confined to human-to-human interactions alone; instead, it extends its reach to encompass relationships of human to artificial agent (AA) interactions and even extends to interactions between two artificial agents.

The extant literature strongly supports the substantial expansion of e-commerce (Jain et al., 2021). Nevertheless, the presence of e-commerce is contingent upon customer contentment. This study shows that if customers fail to obtain optimal satisfaction from online shopping experiences during the fourth industrial revolution, it might negatively impact their everyday lives. This highlights the need to continuously advance technology and e-commerce platforms to meet changing customer requirements and demands.

The second part of the literature highlights a robust growth trajectory in e-commerce. However, it emphasises that the sustainability of this growth is closely linked to customer satisfaction. According to the current study, if consumers are unhappy with their online buying experiences, it may Influence their overall happiness and day-to-day life. This observation highlights the need for continuously advancing technology and e-commerce platforms to accommodate customers' requirements. To evaluate this claim, it is necessary to compare it with research that may reveal various variables that influence consumer happiness, or the relative relevance of technical improvements compared to other factors, such as customer service or product quality. Jain et al. (2021) emphasise the critical role of trust in e-commerce, underscoring the obstacles presented by the absence of physical signals and control in virtual environments. Although this emphasis on e-trust is significant, further investigation is required to evaluate the degree to which various factors, including technological advancements and customer service quality, influence consumer satisfaction and the overall expansion of e-commerce. Comparing these variables could provide a more exhaustive understanding of the methods needed to maintain and improve consumer satisfaction in the digital era.

Consumers develop initial expectations regarding a product or service before purchasing, drawing from their knowledge and past experiences acquired through mass media, peers and influential literature (Nam, Baker, Ahmad & Goo, 2020). Mass media, including advertising and media reports, shapes consumer perceptions by providing product information. Similarly, personal selling, opinion leaders, peers and influencers impact on consumer expectations (Nam et al., 2020). When consumers have access to accurate product information, they form realistic expectations. However, misleading information can lead to unrealistic expectations, affecting their purchasing decisions (Nam et al., 2020).

Disconfirmation, a core concept in ECT, occurs when a product fails to meet consumers' expectations, prompting unfavourable attitudes and beliefs (Pradana, 2022). The theory suggests that even relatively low-quality products may satisfy consumers if they meet their expectations, underscoring the role of pre-purchase expectations and post-purchase experiences in shaping satisfaction (Oliver, 1981). Moreover, ECT provides insights into post-purchase cognitive consequences and offers guidance to marketers on consumer retention strategies, preventing the high cost of acquiring new customers (Pradana, 2022).

Furthermore, Krishnamurthy and Kumar (2015) contend that individuals adapt to their surroundings, gaining insights from the results of their actions and developing expectations about future outcomes. These expectations, shaped by past experiences, present circumstances and available information sources, profoundly influence decision-making processes and guide behaviour in different situations. Recognising the formation and significance of expectations is crucial for understanding human cognition and conduct across various contexts (Krishnamurthy & Kumar, 2015).

Krishnamurthy and Kumar (2015) believe that individuals can adapt as a result of their past experiences and the environments where they find themselves. Is it said that changing behaviour based on current conditions, past experiences, and the environments, significantly impacts the decision-making of a e-commerce users. Conversely, Shukla et al. (2023) believe that the immediate effect of information plays a more significant role in expectations and consumer decision-making. Comparing these perspectives reveals a broader understanding of how expectations shape consumer behaviour across various contexts.

There is a contrast between the immediate impact of media on the personal influence of consumer expectations and the adaptive, experience-based expectation formation. Krishnamurthy and Kumar (2015) illustrate the complexity of consumer decision-making. This comparison points out the multifaceted nature of expectation formation and its implications for understanding consumer behaviour. Integrating the above perspectives may provide a more comprehensive approach to studying how expectations influence purchasing decisions and the role of various information sources.

Pradana (2022) emphasises the role of media, peers and influencers in shaping consumer expectations, highlighting the importance of accurate information in forming realistic expectations and avoiding disconfirmation. Conversely, Krishnamurthy and Kumar (2015) focus on the adaptive nature of expectations based on evolving experiences and information, providing a broader perspective on how expectations change over time. Integrating these views offers a more nuanced understanding of expectation formation and its impact on consumer behaviour, addressing both immediate and evolving decision-making influences.

2.12 Interactions and experience of users in e-commerce

Consumers make purchasing decisions after thorough consideration of information available. Upon using a product, they develop perceptions regarding its performance (Lucas, Lunardi & Dolci, 2023). Two distinct approaches to analysing consumers' decisions are evident in the literature. The first approach aligns with the rationality theory of consumer behaviour, positing that consumers act logically to maximise their satisfaction or utility function (Lucas et al., 2023). Consumers and organisations adhere to societal norms and seek logical justifications for their actions, exhibiting prudence, purposefulness and internal consistency. Conversely, the second approach emphasises the irrationality of consumer decisions, attributing them to various factors such as uncertainty, risk, limited time and information accessibility (Lucas et al., 2023). They contend that for consumers to have continued intention to purchase, their expectations of the benefits must be met. They are perceived usefulness, enjoyment and perceived promotions. The variables that control the model of continuance intention are age, gender platform and firm brand (Lucas et al., 2023).

Gulfraz, Sufyan, Mustak, Salminen and Srivastava (2022) indicate that consumers tend to make rational decisions regarding products of high interest while displaying a higher degree of impulse and emotionality in the case of frequently purchased items like food. Many consumers acknowledge that their food-buying decisions are impulsive, emotional and sometimes reckless (Gulfraz et al., 2022). Furthermore, various sales techniques, such as limited time offers, discounts, coupons and complimentary services like delivery, often induce immediate, impulsive shopping behaviours among consumers (Gulfraz et al., 2022). Consumers evaluate the performance of a product or service by comparing it to their initial expectations. According to Krishnamurthy and Kumar (2015), this comparison may result in three outcomes, as stated below:

Perceived product performance > expectations = positive disconfirmation

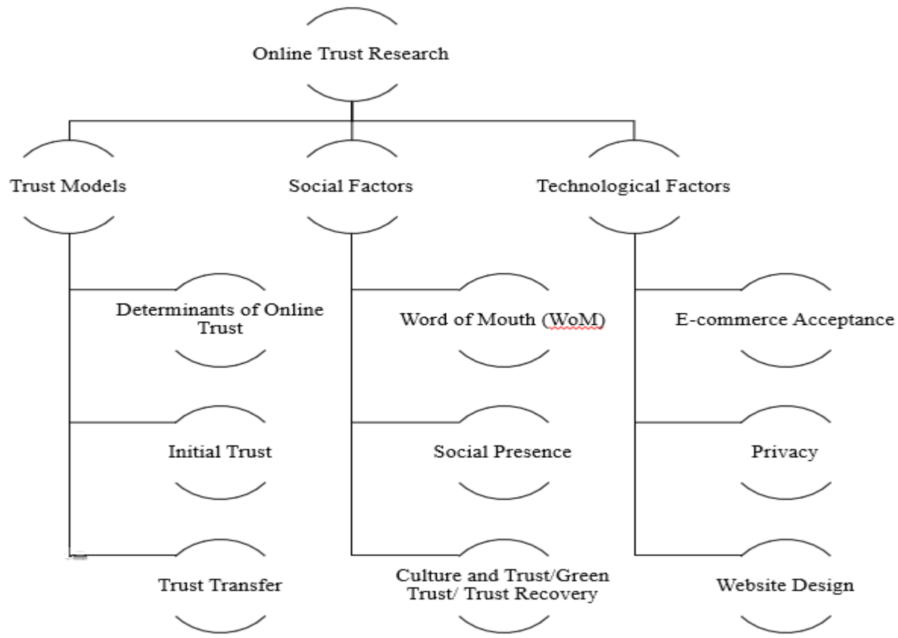
Perceived product performance < expectation = negative disconfirmation

Perceived product performance = expectation = simple confirmation

2.13 Online trust communication model

Figure 2.2 illustrates the factors of online trust extracted from Bauman and Bachmann (2017) . These factors show how trust communication is transferred from one source to another so that customers can accept or use online sources as a transaction method.

Figure 2.2: online trust factors



Source: Bauman and Bachmann (2017)

Bauman and Bachmann (2017) propose an online trust communication model that identifies key factors influencing trust formation in e-commerce. This model was selected for inclusion in this study due to its strong alignment with the research objectives, particularly in understanding how trust is established and maintained in digital transactions. The model emphasises the trustor-trustee relationship, the role of institutional mechanisms, and the impact of risk perception, which are critical factors in consumer trust-building strategies.

While the model of Bauman and Bachmann (2017) is presented in Section 2.14, it is acknowledged that other models exist in the literature. However, the selection of this model was based on its comprehensive approach to online trust, as well as its relevance to the specific themes identified in the reviewed literature. Additionally, the modules emphasis on institutional structures provides a theoretical foundation that complements the study's framework.

The Bauman and Bachmann (2017) survey provides evidence that trust needs to be created, involving the participation of two entities: the trustor and the trustee. Trust arises in situations of risk or uncertainty, suggesting that vulnerability is essential. Moreover, trust is intricately dependent on specific circumstances and may be affected by various individual and external elements when engaging in online purchasing; customers acting as trustors encounter a particular circumstance involving risk, according to authors Gyenge, Máté, Vida, Bilan and Vasa (2021).

In this circumstance, either the consumer or business organisation uses an e-vendor over the Internet and discloses personal information. Users choose a payment method and trust the website to handle the transaction safely, while expecting the seller to handle their purchase honestly and professionally (Gyenge et al., 2021). Online trust refers to a state of confident anticipation in an online setting where there is a risk, with the belief that one's weaknesses will not be taken advantage of (Gyenge et al., 2021).

Yang, Xu and Xing (2022) hold that a trust model offers a comprehensive perspective on the development of online trust, outlining the antecedents of trust within specific contexts. Given the contextual nature of online trust, these models provide a theoretical foundation for understanding the phenomenon.

Similarly, Yang et al. (2022), when referring to technological factors, reflect a cognitive approach to trust, showcasing a company's ability to complete transactions securely, which consumers evaluate rationally. These factors also align with institutional trust, where individuals perceive institutional structures and arrangements as mechanisms to reduce risk in particular situations (Bauman & Bachmann, 2017). Yang et al. (2022) further contend that social factors correspond to an effective approach to trust, encompassing consumers perceptions and emotions regarding the perceived trustworthiness of a website.

2.14 Consumer behaviour and trust in e-commerce

Consumer behaviours in e-commerce is shaped by evolving trust dynamics, technological advancements, and shifting purchasing patterns. Trust is a fundamental component of online shopping, influenced by perceived risk, interdependence between parties, and market orientation (Luo, Forscher, Shaheen, Deakin & Walker, 2023). Unlike traditional retail environments, where trust is built through face-to-face interactions and direct product engagement, e-commerce transactions rely on digital information, website credibility, and security measures. The absence of physical interaction makes trust-building complex, particularly in B2C e-commerce, where consumers often face ambiguity, vulnerability, and dependency on virtual platforms (Higueras-Castillo et al., 2023).

The exponential growth of e-commerce has significantly altered consumer behaviour, shifting the emphasis from product availability to user experience, convenience, and security. Consumers now rely heavily on digital tools for decision-making, including peer reviews, price comparisons, and targeted marketing through artificial intelligence (AI) and data analytics (Rosário & Raimundo, 2021). Companies have adapted by integrating advanced analytics to personalize recommendations, enhance customer engagement, and improve transaction security. However, while technology has helped reduce perceived risks, privacy and data security concerns remain persistent barriers to trust in online shopping (Higueras-Castillo et al., 2023).

Several key factors influence trust in e-commerce, including website quality, technological reliability, and transparent business practices (Higueras-Castillo et al., 2023). Familiarity with online platforms may enhance consumer confidence, but it can also heighten concerns about privacy, fraud, and cybersecurity. The trust model proposed by Luo et al. (2023) categorizes trust into cognitive, affective, and strategic dimensions, demonstrating its multifaceted development over time. While cognitive trust is based on rational assessments of security and business reliability, affective trust stems from emotional comfort with a brand, and strategic trust is built through repeated positive interactions with a platform. This complexity underscores the need for adaptable trust-building strategies that align with both consumer expectations and evolving e-commerce technologies.

Consumer trust is also influenced by broader external factors, including technological infrastructure, regulatory policies, and organizational practices (Hendricks & Mwapwele, 2023). Technological advancements have played a pivotal role in shaping e-commerce adoption, particularly in developing regions where IT infrastructure and digital literacy levels vary. The perceived adaptability of an organization's e-commerce model, the quality of products sold, and the effectiveness of customer support further contribute to trust formation. Moreover, environmental factors, such as legal frameworks and market regulations, impact consumer confidence by establishing enforceable standards for secure transactions and consumer protection.

Trust also plays a crucial role in data-sharing behaviour within e-commerce. Studies suggest that consumer-perceived power influences willingness to disclose personal information online (Degutis et al., 2023). When consumers believe they have control over their data, they are more inclined to engage with e-commerce platforms. Conversely, lack of transparency in data usage, excessive data requests, and security breaches contribute to distrust and reduced engagement. The application of social exchange theory (Blau, 1964) in e-commerce highlights that trust is not just an emotional response but a reciprocal process, where businesses must provide tangible value—such as enhanced personalization and security guarantees—in exchange for consumer data (Hollebeek & Macky, 2019).

The continued success of e-commerce depends on businesses addressing these trust concerns through ethical data practices, transparent communication, and robust security measures. Organizations that prioritize consumer trust through effective technology implementation, legal compliance, and personalized customer experiences are better positioned to foster long-term relationships and sustainable growth in the digital marketplace

2.15 The influence of consumer trust in online shopping

The rise in online shopping was driven by COVID-19 concerns and for its convenience, with most consumers planning to increase online purchases (Bulbulia & Schaefer, 2021). There is a growing trend towards omni-channel shopping, blending online and in-store experiences, according to Bulbulia and Schaefer (2021). Popular online shopping categories in South Africa include electronics, fashion and fresh food as a result of lockdown measures (Bulbulia &

Schaefer, 2021). Consumers prefer specific online stores with efficient checkout, low delivery costs and clear return policies.

However, concerns remain about security, high fees and unreliable delivery times which hinder online shopping adoption, emphasising the need for retailers to address these issues (Bulbulia & Schaefer, 2021). Goga, Paelo and Nyamwena (2019) mention that the growth of e-commerce in Africa has faced obstacles like high internet costs, poor internet quality and unreliable delivery systems. While there has been significant growth in e-commerce in recent years, driven by improvements in internet speeds and mobile penetration, the industry is still in its early stages (Goga et al., 2019). E-commerce has expanded across various product categories, including food, consumer electronics, and clothing. However, despite the increasing number of websites for online shopping, many of them attract minimal e-commerce traffic (Goga et al., 2019).

Given the expanding landscape of e-commerce providers and the partially tapped online shopping market, digital commerce players must grasp the factors influencing consumers' shopping decisions and their choice of provider. Consumers prioritise providers they trust, who offer hassle-free online shopping at competitive prices (Bulbulia & Schaefer, 2021). In addition, factors like efficient checkout processes, affordable delivery options and transparent return policies are paramount. Moreover, consumers favour providers with a responsive customer service, especially for addressing challenges during their online shopping journey. A shift towards pure self-service may alienate some customers, particularly those less comfortable with online shopping (Bulbulia & Schaefer, 2021).

This highlights the significance of a crafted user interface backed by technology and attentive customer support. Companies that excel in these areas tend to satisfy their customers and attract others. Nevertheless, there are concerns about the security of payments and personal data, high shipping costs, complicated return procedures and inconsistent delivery schedules that hinder the widespread adoption of online shopping (Bulbulia & Schaefer, 2021). As users become more familiar with a platform and build trust over time, security concerns typically decrease, with convenience outweighing shipping expenses. Nonetheless, fears persist about payment security, high delivery fees, intricate return processes and erratic delivery times as obstacles to embracing e-commerce shopping (Bulbulia & Schaefer, 2021). Additionally, inadequate product information, like insufficient photos and descriptions, frustrates online shoppers. (Bulbulia & Schaefer, 2021).

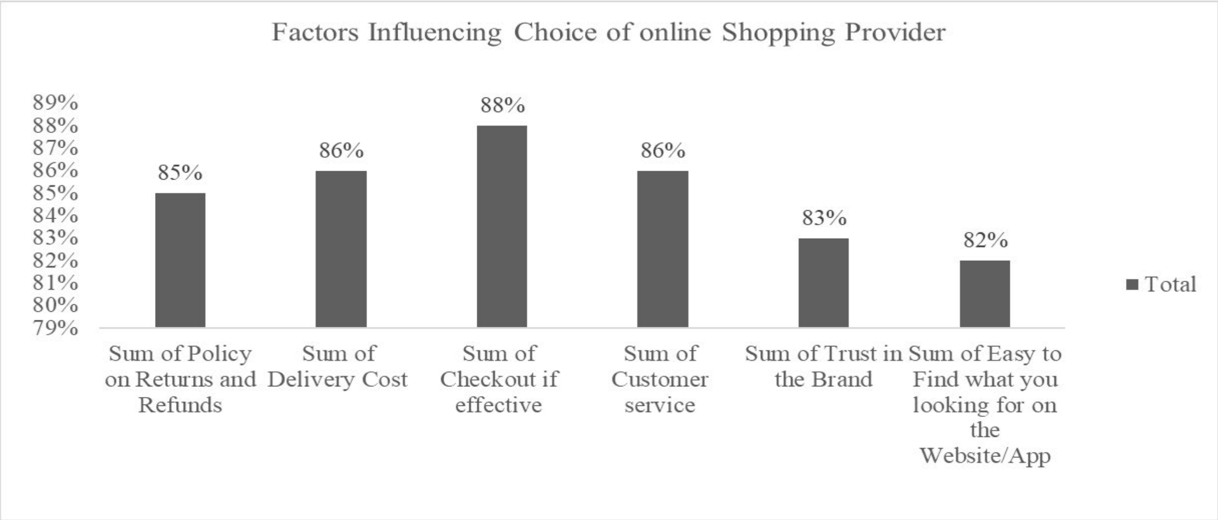
According to the South African Digital Commerce Consumer Report by George and Van Eeden (2020), consumers prioritise effective checkout processes and excellent customer service when choosing online shopping providers. They also seek lower delivery fees, while a willingness to pay extra for same-day delivery exists. Reassurance regarding returns and refunds and ample product information are crucial. Additionally, easy-to-navigate websites with diverse payment options and reliable delivery times significantly unlock the online shopping customer journey resistance (George & van Eeden, 2020). Online shopping involves selling and buying services and products through the internet.

While convenient, timesaving, and cost-effective, customers cannot judge products physical quality and appearance. Negative reviews often indicate that products did not meet expectations, leading to dissatisfaction and potentially switching behaviour. The pandemic resulted in many websites being unprepared for the sudden increase in orders, resulting in service failures like delivery delays, system issues and poor product quality (Mazhar et al., 2022).

The disconfirmation construct represents the difference between customers expectations and what they receive. Customer satisfaction is proportional to repurchase intention, evaluated as Disconfirmation = Performance – Expectations (Mazhar et al., 2022). Variance in expectations can lead to positive or negative disconfirmation. Customers form expectations based both on their own experience and on reviews; unmet expectations may result in dissatisfaction with the website (Mazhar et al., 2022).

Figure 2.3 represents the factors influencing shopping behaviour; it was extracted from the Deloitte digital report. The table below indicates that consumers are most influenced when checkout is effective, suggesting that customers are only satisfied when the procedure is processed successfully.

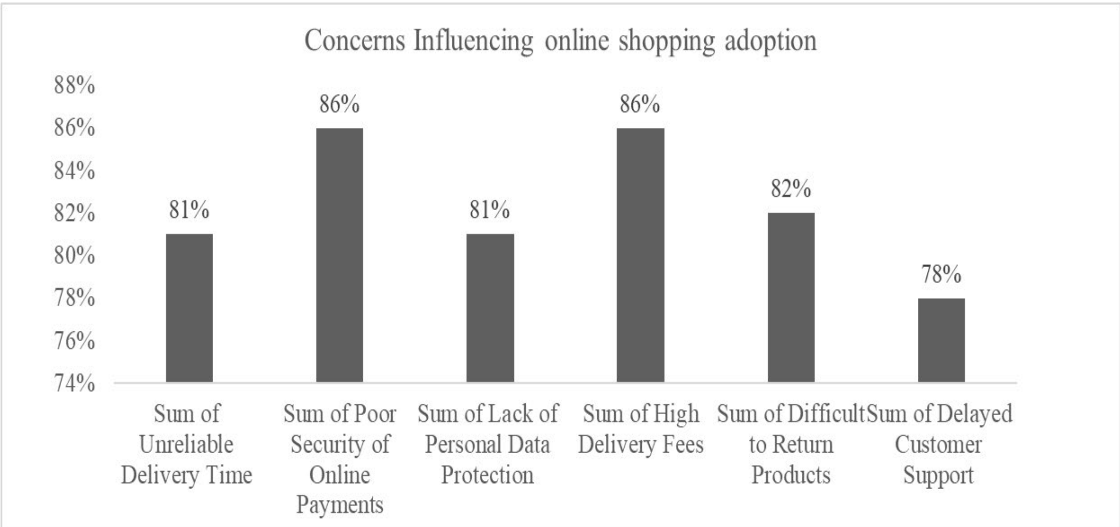
Figure 2.3: factors influencing choice of online shopping providers



Source: George and van Eeden (2020)

Figure 2.4 illustrates, by percentage rate, the concerns which influence shopping adoption to make purchases in e commerce:

Figure 2.4: concerns influencing online shopping adoption



Source: George and van Eden (2020)

According to George and Van Eden (2020), the factors impeding the adoption of online shopping include poor payment security and personal data protection, high delivery fees, unreliable delivery times, challenges in product returns and delayed customer support. Given the evidence from the South African digital commerce report by George and Van Eden (2020), there are two factors that share the same percentage but present the highest concern during online shopping: poor security payments and high delivery fees. In the same report by George and Van Eden (2020), it is notable that effective checkout could be the major influencing factor in online shopping. Further evidence is that delivery cost and customer service at its best could influence the choice of online shopping in South Africa, thus building consumer trust (George & Van Eden., 2020).

Privacy concerns among electronic shoppers are increasingly noticeable, with consumers prioritising protecting their personal information during online transactions. According to a study by Zareef and Tejay (2017), security and privacy are crucial factors dissuading consumers from online purchases. Electronic payment methods such as debit cards, credit cards, electronic wallets and online banking are becoming more frequent, but concerns persist regarding the security of shared data during these transactions. Despite the convenience of technology, common threats such as spam, cookies and clickstream tracking continue to affect online customers experiences, influencing their attitudes toward online shopping (Zareef & Tejay, 2017).

Cybersecurity experts warn about the escalating abuse of payment networks and the theft of client data due to the expanding trend of online shopping (Zareef and Tejay, 2017). Credit cards, debit cards and PayPal are widely used payment methods for online shopping. Electronic payment methods may be generally classified into credit card and money payment systems (Zareef & Tejay, 2017).

2.16 Strategies for building consumer trust

Building consumer trust in e-commerce is essential for fostering long-term customer relationships and ensuring business sustainability. Research highlights several key strategies that contribute to trust formation, including website credibility, secure payment systems, transparency, and customer engagement (Felix & Rembulan, 2023; Stouthuysen, 2020; Hossain et al., 2024). The integration of these elements helps mitigate perceived risks and enhances consumer confidence in online transactions.

A critical strategy in establishing trust is ensuring website security and credibility. Consumers are more likely to engage with e-commerce platforms that implement stringent security measures, such as SSL encryption, two-factor authentication, and fraud detection systems (Rodrigues et al., 2022; Hossain et al., 2024). Studies show that businesses with clear security protocols experience lower cart abandonment rates and higher customer retention (Felix & Rembulan, 2023). Additionally, displaying trust signals, such as certifications, trust badges, and verified reviews, reassures consumers about the legitimacy of an online platform (Chen et al., 2024). However, while trust marks are widely used, their effectiveness depends on consumer awareness and the credibility of the certifying entity (Nguyen et al., 2023; Lin, 2022).

Transparency in Business Practices is another fundamental factor in trust-building. Consumers appreciate clear pricing, return policies, and product descriptions, which reduce uncertainty and prevent misleading expectations (George & van Eeden, 2020; Hossain et al., 2024). Studies indicate that companies that maintain honest communication and avoid hidden fees foster greater consumer confidence (Rodrigues et al., 2022). Moreover, customer reviews and ratings play a crucial role in shaping trust perceptions, as buyers tend to rely on peer feedback when making purchasing decisions (Thompson et al., 2019; Katz, 2022). Ensuring authenticity in user-generated content by implementing fraud detection mechanisms for fake reviews further strengthens credibility (Felix & Rembulan, 2023).

A personalized approach to customer service and engagement significantly impacts consumer trust. Consumers prefer e-commerce platforms that offer responsive customer support, chatbot assistance, and seamless return processes (Badrinarayanan, 2024; Stouthuysen, 2020). Research suggests that businesses implementing AI-powered chatbots and live chat support improve consumer satisfaction and reduce frustration caused by delayed responses (Mahdikhani & Yazdani, 2020; Choi et al., 2022). Furthermore, a study by Katz (2022) emphasizes the importance of human interaction in trust-building, stating that while automation enhances efficiency, the availability of human customer support reassures consumers when resolving complex issues.

Beyond individual trust-building strategies, social proof and community-building play an integral role in reinforcing consumer confidence. Influencer marketing, social media engagement, and brand advocacy programs have emerged as powerful tools for increasing trust in e-commerce (Hossain et al., 2024; Stouthuysen, 2020). Consumers are more inclined to trust brands endorsed by familiar figures or peer networks (Felix & Rembulan, 2023). Additionally, businesses leveraging loyalty programs, referral incentives, and interactive social media content create a sense of community, further strengthening long-term consumer relationships (Nguyen et al., 2023).

In conclusion, businesses must adopt a multi-faceted approach to building consumer trust in e-commerce. Security measures, transparency, customer engagement, and social proof collectively enhance trust perceptions and influence purchase decisions. While technological advancements continue to evolve, ethical business practices and consumer-centric strategies remain central to fostering sustainable trust in the digital marketplace. Future research should further explore how emerging technologies, such as blockchain for secure transactions and AI-driven fraud detection, can enhance trust-building efforts in e-commerce (Rodrigues et al., 2022; Katz, 2022).

2.17 Emerging trends to improve customer satisfaction

Artificial intelligence (AI) and Machine Learning (ML) are revolutionising e-commerce by facilitating personalised shopping experiences tailored to individual consumer preferences, behaviours and purchase histories (Srivastava & Kumari, 2024). Through sophisticated AI algorithms, e-commerce platforms can deliver targeted product recommendations, enhance consumer engagement and optimise advertising strategies for greater efficiency and profitability. Additionally, AI-powered chatbots offer immediate and personalised customer support, while AI-driven intelligent product suggestions complement customers’ purchases, driving sales and improving overall shopping experiences (Srivastava & Kumari, 2024).

Srivastava and Kumari (2024) investigated the influence that AL and ML have had on e-commerce, highlighting their different technological role in improving customisation and customer service. They contend that these technologies enable more accurate targeting and enhance the purchasing experience. On the other hand, the fast speed of technical innovation raises issues regarding the viability of these solutions in the long run. The contrast between the effectiveness of AI-driven suggestions and possible problems such as algorithmic bias or over-reliance on technology paints a complex picture of the advantages and limitations of these recommendations (Srivastava & Kumari, 2024). Integrating AI and ML technologies into e-commerce facilitates more profound insights into consumer behaviour, improves advertising targeting, enhances customer assistance and refines search result relevance according to Choi, Kim, and Lee (2022). These advancements signify a proactive shift towards personalised and efficient digital commerce, empowering businesses to thrive in the competitive online marketplace (Choi et al., 2022)**.**

The integration of AI and ML in e-commerce platforms is recognised for its ability to tailor shopping experiences and enhance operational efficiency. Choi et al (2022) highlight the advantages of AI and ML, including personalised product recommendations, improved customer support through chatbots and targeted advertising. These advancements are crucial for increasing consumer engagement and driving sales. The authors effectively demonstrate how AI and ML contribute to a more customised and efficient online shopping environment, reflecting a strategic shift towards leveraging technology for competitive advantage.

In literature which supports the trends and development of e-commerce, authors such as Orzol and Szopik-Depczyńska (2023) acknowledge that e-commerce is developing day-by-day. In addition to this evidence, it indicates that the global online retail sales are expected to reach $7.3 trillion in 2025. E-commerce sales increased by at least 25% during the Covid-19 pandemic and 73% of global consumers believe that online shopping will take priority in the future (Orzoł & Szopik-Depczyńska, 2023).

Chatbots systems which have AI-driven conversations, virtual assistants, dialog systems and all types of other technological factors are incorporated to deal with e-commerce (Orzoł & Szopik-Depczyńska, 2023). However, the findings consistently suggest that with chatbots there are many benefits that enhance the lives of users in e-commerce and their experience of their purchasing decisions; chatbots contribute to making consumers' shopping experiences easier, the provision of 24 hours a day and 7 days a week satisfies consumers as it is a platform that supports queries all day and all night (Orzoł & Szopik-Depczyńska, 2023). Further evidence by Orzoł and Szopik-Depczyńska (2023) indicates that automated reminders tend to reduce the number of cart abandonments, as customers are reminded about the items left in their carts. Furthermore, using chatbots also reduce companies' expenses as it leads to labour cuts.

However, while the benefits are well-articulated, the current review also acknowledges critical limitations. The potential issues, such as algorithmic bias and over-reliance on technology, pose significant risks that could impact the long-term effectiveness of these systems. Algorithmic bias might lead to skewed recommendations or reinforce existing inequalities, while over-reliance on automated systems may diminish the role of human judgment in decision-making. Addressing these concerns is essential for maintaining trust and ensuring the sustainability of AI-driven e-commerce solutions. The discussion presents a balanced view by recognising both the transformative potential and the inherent challenges of AI and ML in digital commerce. Further argument noted is that while AI is beneficial, people may lose their jobs due to e-commerce platforms taking over.

2.18 Chapter summary

Chapter two presents the major findings of each research objective aligned with available literature. The first research objective is to determine the different e-commerce platforms, where the different platforms like B2C. B2C, B2B and C2C play a major role in consumer trust. The second research objective highlights the major findings; its role is to establish consumer behaviour using the different e-commerce platforms. It was important to establish consumer behaviour for users of e-commerce so that the identification of trust factors is established. This clarifies why some customers are still reluctant to use e-commerce and prefer brick and mortar. The third research objective is to evaluate strategies to facilitate the use of e-commerce; strategies have been found in literature to assist e-commerce users going forward.

The following chapter discusses the research designs and methods adopted to address the research aims and objectives.

2.19 The alignment of literature with research objectives and questions

Table 2.1 displays the synergy between the research objectives with the relevant literature

Research Question/Objective	**Relevant Authors ~~Literature~~**	**Relevance**
RQ1: What are the various types of e-commerce platforms available for public use, and how do they differ in terms of features and functionalities? RO1: To identify the various types of e-commerce platforms available for public use, and how do they differ in terms of features and functionalities	Faccia, Le Roux and Pandey (2023) Hossain et al. (2024) Jain, Malviya, and Arya (2021) Krishnamurthy and Kumar (2015) Laudon and Traver (2020) Liao et al. (2023) Muhammad Arif et al. (2024) Rosário and Raimundo (2021)	Faccia et al. (2023) examine the role of technological advancements in e-commerce growth and the challenges associated with regulatory policies. Hossain et al. (2024) discuss platform usability trends and digital consumer engagement. Jain et al. (2021) classify e-commerce types, focusing on B2B, B2C, C2C, and C2B models. Krishnamurthy and Kumar (2015) emphasise platform differentiation in business transactions. Laudon and Traver (2020) provide an overview of evolving e-commerce models. Liao et al. (2023) highlight live-streaming commerce as an emerging trend. Muhammad Arif et al. (2024) stress the role of awareness and sustainability in platform adoption. Rosário and Raimundo (2021) explore consumer trust in digital commerce.

RQ2: How do consumers behave when using e-commerce platforms, and what factors influence their purchasing decisions? RO2: To understand what strategies e-commerce platforms can employ to effectively build and maintain consumer trust, considering both brand and consumer perspectives?	Gyenge, Máté, Vida, Bilan and Vasa (2021) Hendricks and Mwapwele (2023) Luo, Forscher, Shaheen, Deakin and Walker (2023) Yang, Xu and Xing (2022) Al-Lami and Alnoor (2021) Degutis et al. (2023) Eastman et al. (2023) Felix and Rembulan (2023) George and van Eeden (2020) Gulfraz et al. (2022) Higueras-Castillo et al. (2023) Lucas et al. (2023) Mazhar et al. (2022) Natarajan (2022) Srivastava and Kumari (2024) Wang et al. (2023)	Gyenge et al. (2021) highlight the consumer's role as a trustor in e-commerce transactions. Hendricks and Mwapwele (2023) identify technological, consumer, organizational, and environmental factors affecting e-commerce adoption. Luo et al. (2023) examine the evolution of trust in e-commerce, emphasizing risk perception. Yang et al. (2022) proposes a trust model outlining the antecedents of trust in online contexts. Al-Lami and Alnoor (2021) discuss the impact of convenience and accessibility on online consumer behaviour. Degutis et al. (2023) analyses consumer trust and willingness to share data. Eastman et al. (2023) highlight the role of personalization and engagement in shaping trust. Felix and Rembulan (2023) examine the impact of security concerns on purchasing decisions. George and van Eeden (2020) identify consumer preferences in digital commerce in South Africa. Gulfraz et al. (2022) explore pricing and perceived risk as trust factors. Higueras-Castillo et al. (2023) emphasize the role of transparency in customer retention. Lucas et al. (2023) investigate cultural differences in e-commerce trust. Mazhar et al. (2022) analyse the significance of online reviews in consumer trust. Natarajan (2022) discusses psychological drivers in digital purchasing behaviour. Srivastava and Kumari (2024) explore the link between social proof and trust. Wang et al. (2023) examine the role of perceived security in online shopping decisions.

RQ3: What strategies can e-commerce platforms employ to effectively build and maintain consumer trust, considering both brand and consumer perspectives? RO3: To investigate what strategies can e-commerce platforms employ to effectively build and maintain consumer trust, considering both brand and consumer perspectives?	Bauman and Bachmann (2017) Bulbulia and Schaefer (2021) Chen, Shu, Ravishankar, Li, Agarwal and Cranor (2024) Lin (2022) Rodrigues et al. (2022) Zareef and Tejay (2017) Aisyah, Madyan, and Prihantono (2020) Badrinarayanan (2024) Felix and Rembulan (2023) Handoyo (2024) Katz (2022) Mayayise (2023) Rosário and Raimundo (2021) Srivastava and Kumari (2024) Stouthuysen (2020) Thompson, Tuzovic, and Braun (2019)	Bauman and Bachmann (2017) argue that trust in online commerce depends on institutional mechanisms, reducing risk through security structures, payment methods, and brand credibility. Bulbulia and Schaefer (2021) analyse consumer trust post-COVID-19, emphasizing checkout efficiency and delivery policies. Chen et al. (2024) explore the impact of trust marks as institutional assurances for reducing risk perception. Lin (2022) argues that trust marks foster both early sales and long-term customer loyalty. Rodrigues et al. (2022) focus on fraud prevention strategies, including machine-learning fraud detection. Zareef and Tejay (2017) highlight consumer privacy and security concerns in online payment methods. Aisyah et al. (2020) highlight brand reputation as a key factor in trust-building. Badrinarayanan (2024) emphasizes digital transparency in post-pandemic e-commerce. Felix and Rembulan (2023) analyse security measures to boost consumer confidence. Handoyo (2024) discusses the role of customer service in retaining online trust. Katz (2022) examines website credibility and its influence on consumer perceptions. Mayayise (2023) explores trust models integrating behavioural and technological aspects. Rosário and Raimundo (2021) provide insights into long-term trust sustainability strategies. Srivastava and Kumari (2024) emphasize the role of AI in personalized trust-building. Stouthuysen (2020) discusses institutional trust in e-commerce security frameworks. Thompson et al. (2019) analyse trust marks and their impact on consumer confidence.

Objective 1 aims to identify different types of e-commerce offered for public use. This objective matches with RQ1 and RO1 in Table 2.1, where the focus is on identifying the different types of e-commerce platforms (B2B, B2C, C2C, C2B, social commerce, mobile commerce). The relevant literature cited in the table (Krishnamurthy & Kumar, 2015; Rosário & Raimundo, 2021) discusses these types and how they evolve with technology, which aligns with the objective's aim to analyse and categorise these platforms.

The objective corresponds to RQ2 and RO2 in the table, which focus on understanding consumer behaviours influenced by convenience, pricing, perceived risk and personalisation factors. The existing literature, for example, Eastman et al. (2023); Higueras-Castillo, Liébana-Cabanillas and Villarejo-Ramos. (2023); Lucas, Lunardi and Dolci (2023); Mazhar et al. (2022); Natarajan (2022) supports this objective and discusses various consumer behaviours and the influence they have on decision-making processes; this includes regional and cultural differences.

This objective aligns with RQ3 and RO3 in the table, focusing on the strategies for building consumer trust (e.g., transparency, security measures and effective communication). A great number of studies, Badrinarayanan (2024); Katz (2022); Stouthuysen (2020) examine these strategies and their effectiveness, directly relating to the goal of investigating these methods to foster trust among e-commerce users.

Chapter three research methodology

3.1 Introduction

This chapter explains the research methods and designs used to answer the research questions and objectives. It describes the research purpose, objectives and important questions, establishing a strong foundation for the research project. Moreover, the chapter provides a detailed explanation of the methods mentioned in chapter one. It probes into the chosen research approach/paradigm, the complexities of the research design, the specific identification of the target population being examined, the intricacies of the sampling strategies used and the careful reasoning behind determining the sample size. Next, the chapter describes the selection criteria, including the criteria for including and excluding participants in this research. A comprehensive explanation of the procedures used to gather data is provided, highlighting the importance of quality control measures and describing the methodical approach to data analysis, which adheres to stringent academic standards.

3.2 Research paradigm

A research paradigm refers to a comprehensive framework of ideas, techniques and standards that govern the process of scientific investigation within a particular field (Kuhn, 1970). Kuhn's (1970) work, "The Structure of Scientific Revolutions," outlines how paradigms guide scientific inquiry and shape the methodologies and theoretical frameworks that researchers employ. Paradigms influence the way researchers analyse data, develop hypotheses and carry out studies. According to Kuhn (1970), scientific progress happens via paradigm shifts, through which an existing paradigm is replaced by a new one due to the accumulation of anomalies that the original framework could not account for. These shifts signify profound changes in the core assumptions and procedures of a scientific subject (Kuhn,1970).

According to Pilarska (2021), constructivism is a psychological or philosophical perspective which builds on the prior experiences of individuals. Furthermore, the constructivist approach is based on what has been learnt and understood through earlier experiences and individuals construct their own understanding based on their prior knowledge, beliefs and any new knowledge they acquire. A constructivist approach is usually applied in work such as grounded theory, ethnography, phenomenology and even case studies (Pilarska, 2021). This study applies a constructivist approach to analyse strategies for building consumer trust in e-commerce. By adopting a constructivist perspective, the research aims to understand the diverse realities inherent in this phenomenon. Using qualitative and secondary data collection methods, the study seeks to generate theory from the perspectives and experiences of participants, allowing for a rich and nuanced understanding of consumer trust in e-commerce. This approach acknowledges the subjective nature of trust and seeks to uncover the complex interplay of factors that influence consumers' perceptions and behaviours in online shopping environments.

3.3 Research design

Agrawal et al., (2024) analyse how systematic reviews can be enhanced by utilising the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist and a web-based application for better quality assessment. According to Agrawal et al (2024), the checklist was introduced to address the reporting of *meta-analyses* that was less than optimum. In 2009, this was rebranded as the Preferred Reporting Items for Systematic Reviews and Meta-Analyses, or PRISMA for short. Agrawal et al, (2024) explain that the primary reason for changing the original name of the organisation from Quality of Reporting in Observational Studies in Meta-Analyses (QUOROM) to PRISMA was the need to include both systematic and meta-analyses (Agrawal et al., 2024).

A systematic review is a well-structured and transparent investigation of a particular topic that employs a set of methodical and defined procedures to identify, select, and critically assess relevant research. It also involves the collection and analysis of data from the studies that are included in the review. In contrast, "meta-analysis" refers to the application of statistical techniques within a systematic review to combine and synthesize the results of the included studies, providing a more comprehensive understanding of the research findings (Agrawal et al., 2024).

In addition, the use of PRISMA brings about an increase in the level of correctness and transparency in a study of academic literature. The secondary data sources for this study consist of an extensive review of the existing literature within the domains of e-commerce and consumer industry research, specifically focusing on the PRISMA statement. The study employs a comprehensive framework, namely a 15-Point checklist of criteria for conducting effective systematic analysis, as a critical component of the research method (Adeyinka-Ojo, 2021).

To ensure that systematic reviews are valuable to users, authors must provide a transparent, complete and accurate account of their objectives, methodology and findings. The PRISMA 2020 statement offers updated guidelines for reporting systematic reviews, incorporating advances in techniques for identifying, selecting, appraising and synthesising studies (Page et al., 2021). The PRISMA 2020 includes a 27-item checklist, a detailed expanded checklist, an abstract checklist and revised flow diagrams for both original and updated reviews. The PRISMA 2020 statement is anticipated to benefit a wide range of users, including authors, editors, peer reviewers, guideline developers, policy makers, healthcare providers, patients and other stakeholders (Page et al., 2021).

The secondary data sources for this study consist of an extensive review of the existing literature within the domains of e-commerce and consumer industry research, specifically focusing on the PRISMA statement. The study employs a comprehensive framework, namely a 15-Point checklist of criteria for conducting effective systematic analysis, as a critical component of the research method (Adeyinka-Ojo, 2021).

This study uses a qualitative approach, with PRISMA checklists designed for advanced reviews; it also employs the PRISMA flow diagram as a key tool in the research methodology (Adeyinka-Ojo, 2021). This framework ensures:

1. Transparency: Ensures clear documentation of the review process, enhancing the understanding and trustworthiness of the research.
2. Reproducibility: Facilitates replication by providing detailed methodological descriptions, essential for verifying results.
3. Comprehensive Reporting: Guarantees that all relevant review areas are thoroughly covered, providing a complete picture of the evidence.

3.4 Data collection

This study followed a desktop approach. As a result, no primary data was collected as a source of information. The data collected for this study was secondary information. According to Saunders et al (2023) secondary data can be qualitative, quantitative or mixed. Data which is collected can be done. Secondary data is readily available, and this saves time and the utilisation of resources (Saunders et al., 2023). Furthermore, secondary data has less ethical considerations. Less ethical considerations is associated to secondary to data existing already which reduces obtaining informed consent from participants (Saunders et al., 2023). Despite secondary data having its advantages, a rigorous approach must be undertaken to ensure that data is critically evaluated for its relevance, credibility and potential limitations. (Saunders et al., 2023). Data collection is a critical phase in research which significantly enhances result quality by minimising potential errors. Consequently, investing substantial time and effort in collecting data, alongside a well-designed study, is essential to ensure accurate findings, as inadequate and incorrect data undermine the reliability of the results (Taherdoost, 2021).

Secondary data was collected which allowed ~~as allows~~ for in-depth exploration of perceptions, motivations and experiences of consumer. The use of secondary data was instrumental in gaining an understanding of the subject matter which is useful when exploring new or less understood ideas in e-commerce and consumer behaviour. Secondary data has also allowed for contextual insights by using journal articles from real world scaring and the factors influencing consumer behaviour and business strategies. It authorized to explore existing knowledge conducted by experts and it is the most suitable for the research objectives as it aimed to explore perceptions, motivations or experiences rather than quantifying relationships. The use of secondary data was more practical ~~and ethical~~ during the data collection as it saved time, considering -budget constraints.

The data collection in this study consists of data from peer reviewed articles from accredited journals. The information used in the literature is derives from journal articles like those of the Journal of Business Research or Decision Support Systems, where studies in the field have already been conducted. In addition, industry reports are reviewed to assess the trends and behaviours of consumers. Different search engines such as Web of Science, Google Scholar and PubMed have been consulted.

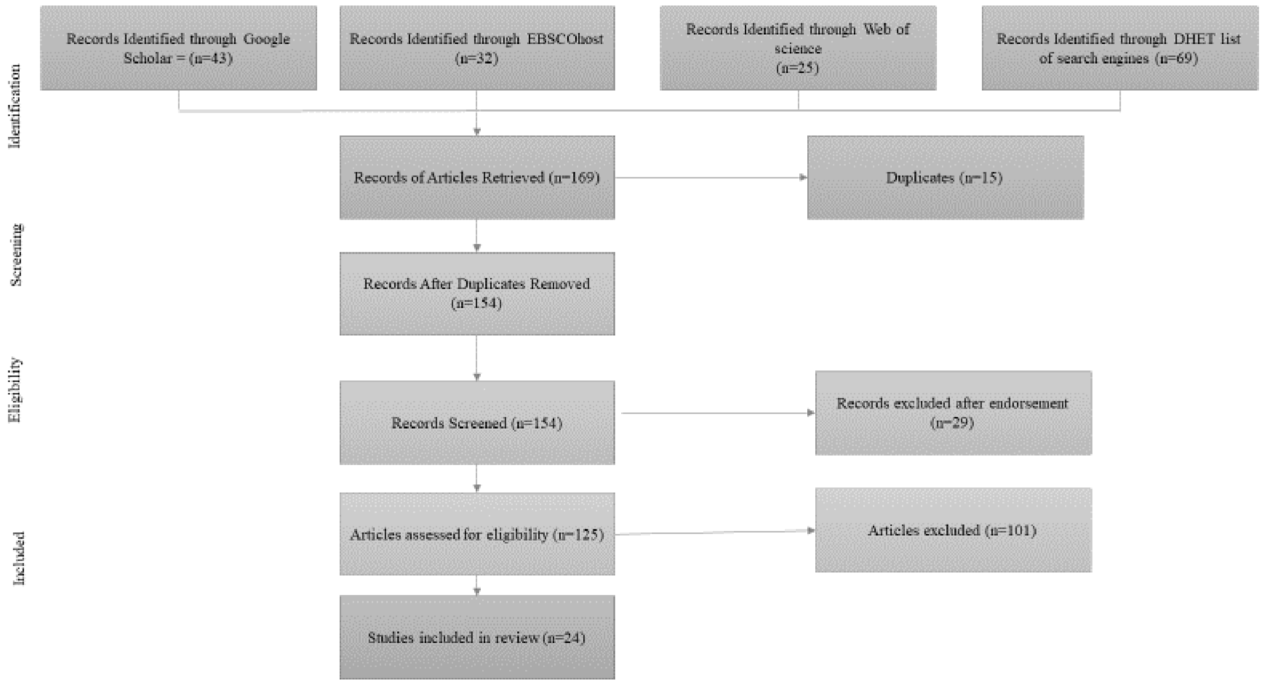
Industry reports were reviewed to assess the latest trends and behaviours of consumers, providing valuable insights into the evolving e-commerce landscape. In addition, databases such as Web of Science, and PubMed were consulted based on specific criteria to ensure a comprehensive and credible data collection process. Data was collected systematically using predefined keywords such as "e-commerce trends," "consumer behaviour," "trust in online shopping," and "AI in retail". Advanced search filters were applied to refine the results based on publication date (2015–2024), peer-reviewed status, and English language. The relevance to the research topic was a key criterion, leading to the selection of Web of Science for its extensive collection of peer-reviewed articles focused on business and technology.

Accessibility was another important factor, making Google Scholar a suitable choice due to its open-access resources and broad disciplinary coverage. The credibility of sources was also considered, with PubMed being selected for its rigorous peer-review standards and specialization in health-related consumer behaviour. Additionally, the coverage of recent publications was prioritised to capture the latest developments, and search functionality was a criterion that influenced the choice of these databases for their advanced filtering and keyword options. This systematic approach ensured that the data collected was both reliable and directly relevant to the research objectives.

The procedure entails a comprehensive examination of pre-existing scholarly materials, encompassing literature, textbooks, articles, reports and other published sources. The primary objective is to address the research topic effectively through a systematic analysis of the existing body of knowledge in the chosen field of inquiry. In addition, the study uses online databases such as Google Scholar, Web of Science and EBSCOhost. The selected databases offer accredited materials, articles and information, contributing valuable data crucial for this research. While other databases were considered, accessibility issues prevented their inclusion, limiting the researcher's ability to gather data from additional sources.

Figure 3.1 illustrates the PRISMA flowchart analysis which was adopted in this study to provide appropriate literature.

Figure 3.1: PRISMA flowchart



Source: Page et al (2021)

The data search identification process employs a strategic filtering approach, incorporating specific keywords, subject headings, topical areas and demographic parameters (Page et al., 2021) These filters have been systematically applied across a range of search engines to confine the scope to publications relevant to e-commerce and consumer behaviour. The elements used to Keywords such as "e-commerce trends," "consumer behaviour," "trust in online shopping," "AI in retail," and "data privacy" were used to narrow down the search results to studies which answered the research objectives of this study. Articles published between 2015-2024 were included to ensure the information was current and reflective of the latest trends and developments. The search was limited to articles published in English to maintain consistency and ease of analysis. This methodology facilitated the identification of a diverse set of articles from various academic databases. The search process yielded a total of 43 articles from Google Scholar, 32 articles from EBSCOhost, 25 articles from Web of Science, and 69 articles from other databases, such as the University of KwaZulu-Natal repository, and PubMed.

The screening of articles, guided by the PRISMA flowchart, involves a systematic application of the predefined search constraints, including keywords, subject headings, and demographic regions, as established during the initial identification stage (Page et al., 2021). From the initial pool of 169 articles identified through targeted searches, each article was meticulously reviewed for relevance to the research objectives. This screening process entailed several steps: First, the titles and abstracts of all 169 articles were examined to determine their alignment with the focus of the study (e-commerce and consumer behaviour). Articles that did not meet the criteria were excluded from further consideration.

Second, the full texts of the remaining articles were obtained and scrutinised for methodological rigour, relevance to the study's research questions and the inclusion of empirical data. During this phase, studies lacking sufficient methodological transparency or not directly addressing the themes of consumer behaviour and trust-building in e-commerce were excluded.

Third, 15 duplicate articles across databases were identified and removed to ensure a unique set of studies. The articles that passed this screening process were then assessed for their contribution to the literature, particularly regarding their theoretical and practical insights into e-commerce and consumer behaviours. This thorough screening ensured that only the most pertinent and high-quality articles have been included in the final analysis.
During the article evaluation process, each article was meticulously assessed against the research questions and objectives. This evaluation focused on identifying any overlaps and commonalities between the content of the articles and the specific aims of the research. After applying the initial search limitations and conducting a detailed screening, 169 papers were deemed potentially relevant for inclusion in the investigation.

These duplicates were initially included to ensure a comprehensive review but were later flagged during the quality assessment stage and subsequently removed. Following their identification, these duplicates were systematically removed from the final dataset, as per the exclusion criteria outlined in the PRISMA methodology. This step was crucial to maintain the integrity and uniqueness of the remaining body of literature, ensuring that the final pool of articles truly reflected a wide range of insights pertinent to e-commerce and consumer behaviours.

Following a comprehensive screening procedure, 15 duplicate articles were identified and subsequently removed from the initial pool of 169 articles. This rigorous process ensured that each piece of literature was unique and relevant to the research objectives. As a result, a total of 154 articles remained, which were then subject to further in-depth analysis, aligning closely with the study's focus on e-commerce and consumer behaviours. This careful curation of literature was essential to maintain the quality and relevance of the articles used for the investigation.

To assess the eligibility of the articles for inclusion in this research, a detailed evaluation of the full-text articles was conducted. A total of 125 full-text articles were reviewed after applying specific exclusion criteria to the initial pool of 154 screened articles, resulting in the exclusion of 29 items. The criteria for determining eligibility include several essential requirements: the articles had to be published in English, fall within a specific publication year range relevant to the timeframe of the study, provide a clear and comprehensive description of key terms related to the research subject and include pertinent demographic information. This rigorous assessment process ensured that the selected articles were highly relevant to the study's focus on e-commerce and consumer behaviour.

Of the 125 papers that underwent the eligibility assessment, 101 articles were excluded because of redundancy or because they did not sufficiently address the research questions. This rigorous evaluation process ensured that only the most pertinent and high-quality studies were retained. Consequently, the final stage of the review involved a thorough examination of 24 articles, which were approved based on the provisions of the PRISMA flow diagram. The final selection represents a carefully curated set of studies that meet the criteria for a rigorous and systematic literature review, ensuring a focused and relevant analysis of the research objectives.

3.5 Data quality control

Assessing data quality involves gauging factors like completeness, accuracy, consistency, dependability and correctness. This process helps organisations identify data errors and determine whether their IT systems' data is suitable for its intended use, gauging data quality levels. As businesses integrate data processing with operations and rely more on data analytics for decision-making, the importance of data quality in enterprise systems has grown. Managing data quality is a vital part of overall data management. Efforts to enhance data quality often align with data governance initiatives that aim to ensure uniform and structured data utilisation across an organisation. (Stedman & Vaughan, 2022).

The research has systematically applied data quality control procedures utilising the PRISMA approach, as previously described. This approach begins by formulating specific research questions to distinguish between relevant and irrelevant data. Afterwards, a thorough analysis of various information sources, such as journal articles, reports and publications, was conducted to answer the research questions and ensure the precision and pertinence of the collected data. The study further assessed the reliability of the data sources by scrutinising the material for author names, dates, places and keywords to ensure legitimacy. The study used rigorous data quality control measures to guarantee that no papers with missing information, which might potentially affect the data analysis of the study, were included.

In the context of this study, the chosen referencing convention adheres to the guidelines prescribed by the American Psychological Association (APA) style. The APA style is widely recognised and serves as a universally accepted format for the citation of sources and the structuring of academic documents. Notably, it is most frequently applied in the domains of psychology, social sciences and education, aligning seamlessly with the systematic focus of this research (Johnson & Lee, 2019). APA style provides meticulous and comprehensive guidelines for the citation of diverse source types, facilitating a structured and standardised approach to the presentation of references (Johnson & Lee, 2019). The adherence to a standardised format plays a pivotal role in ensuring the accuracy and clarity of citations, thus bolstering the overall credibility of the scholarly discourse encapsulated within this dissertation.

3.6 Data analysis

To understand data analysis in research, it is important first to clarify what “data” means. According to several authors’ definitions, data is information, such as measurements or statistics, that forms the basis for reasoning, discussion or calculation. It may be numbers, characters, images or other forms of recorded information that, by itself, may have no inherent meaning (Alem, 2020).

Data analysis involves transforming raw data into meaningful information, either qualitatively or quantitatively. It aims to summarise data, identify relationships and differences between variables, and to forecast outcomes (Alem, 2020). Overall data analysis is essential in research as it ensures that collected data is systematically examined and interpreted to provide meaningful insights, supporting, or refuting the initial hypotheses or objectives of the study (Salmona & Kaczynski, 2024).

This study employs a methodical analytical technique by using the PRISMA Method. The data analysis follows a systematic analysis to assist the study to comprehend the elements of a phenomenon that participants discuss often or in detail, as well as the way those components of a phenomenon may be related. Data was collected for this study by first defining the objectives. Once the objectives had been established, the process of data collection took place, this included the gathering of data such as industry reports, published journal articles, websites and news articles. These sources had to be trustworthy and relevant to the objectives of this study. To ensure relevance, keywords related to the study were used in the search engines like University of KwaZulu- Natal repository and Google Scholar. Thereafter, the data was organised and separated from most relevant to non-relevant articles; this information was stored on One Drive for safekeeping. The next step was to review and evaluate the different sources on their credibility; this was done by reviewing the author credibility, publication date and relativeness. Once the evaluation and reviewing of sources were completed, a framework, the PRIMSA analysis, was used to structure the findings of this study

3.7 Ethical considerations

This study was conducted using a desktop computer, resulting in no physical or telecommunications with participants nor face-to-face interviews. Ethical clearance was obtained from the ethics committee of the University of KwaZulu Natal before conducting the research. There was no breach of confidentiality or privacy, harm to any individuals or animals during this study. Names of researchers or customers were respected when referred to; there was no research misconduct, and the use of published work has been paraphrased and referenced.

3.8 Chapter summary

The research methodology, approaches, and designs of this study are discussed in chapter three. This study follows a constructivist approach as it aims to build strategies for e-commerce users to gain structure and certainty when using any of the platforms. It employs desktop research using secondary information as a method to collect data. The research design of this study has used the PRISMA method, ensuring the data is of high quality and non-repetitive information and brings different ideas and strategies into perspective.

The following chapter presents and discusses the results.

Chapter four findings and discussion

4.1 Introduction

This chapter presents the analysis and interpretation of the 24 articles reviewed in the study. The findings are structured based on the objectives of this study. ~~the study's objectives~~, highlighting key themes related to consumer trust in e-commerce. The presentation follows a systematic approach, ensuring consistency and coherence in data interpretation. The following discussion is based on the objectives that were used in this study:

RO1: To identify the various types of e-commerce platforms available for public use, and how they differ in terms of features and functionalities

RO2: To understand strategies that e-commerce platforms can employ to effectively build and maintain consumer trust, considering both brand and consumer perspectives

RO3: To investigate strategies that e-commerce platforms employ to effectively build and maintain consumer trust, considering both brand and consumer perspectives

The themes discussed throughout chapter four emergence from secondary data sources such as existing literature, industry reports case studies and consumer feedback and reviews. The themes discussed below emerged through a systemic analysis and content categorisation of secondary data. Through data collection, a review of relevant peer reviewed articles was conducted, and this process involved organisation data from a variety of sources. Thereafter a thematic analysis was followed where data was analysed for recurring patterns, concepts or issues. After identification the common patterns and issues it was categorized into broader themes. the identified themes were then synthesized across multiple data sources which helped to clarify if the overall theme fitted into the discussion of e-commerce if they contribute to the research objectives. Lastly the themes were then connected back to the research questions. This was done by aligning the emerging themes with the study's aims, the findings where then validated and tied to the research objectives ensuring that the themes directly contributed to answering the research questions.

4.2 Objective 1: different types of e-commerce platforms offered for public usage

Objective 1 aims to identify different types of e-commerce platforms offered for public use. These platforms are distinguished by the extensive product ranges they provide and the ease with which they can be used by users. Therefore, they generate a high level of engagement and transaction volumes. The findings of Krishnamurthy and Kumar (2015); Hossain et al. (2024); Rodrigues et al. (2022), who emphasise the significance of perceived value and convenience, are consistent with this perspective. Based on the systematic review, the study identifies several types of e-commerce platforms available for public use as shown in Table 4.2 Table 4.2 provides a foundational overview of the difference e-commerce platforms, their operational focus and practical examples. It serves as a conceptual framework for understanding the diverse nature of e-commerce modules which is important as it contextualizes the study findings and themes. The value added from Table 4.2, it clarifies the context by outlining the key distinctions among e-commerce platforms which may help readers to grasp the specific aspects being addressed in this study, it links to practical examples as this making the discussion more related and it guides the systemic analyses by providing a taxonomy that aligns with the identified themes. The relevance of the themes in line with Table 4.2, explores specific challenges or opportunities, it understands the market dynamics and it helps to organising the findings of this study.

Table 4.2: types of e-commerce platforms available for usage

Type of E- commerce platform	**Description**	**Examples**
Business-to-business	Transactions take place between businesses where companies supply goods and services to other companies.	Aramex; SAP
Consumer-to-consumer	Consumers buy and sell goods and services directly to each other.	Gumtree; OLX
Business-to-consumer	Goods and services are sold directly from businesses to consumers.	Takealot
Consumer-to-business	Goods and services are offered to businesses by consumers.	Freelancer
Mobile Commerce	Transactions take place via mobile devices, which include apps and websites.	Pick n Pay Mobile App; Mr D Food
Social Commerce	E-commerce transactions that take place via social media platforms.	Facebook Marketplace

Source: Own (2024)

The following themes for objective one emerged through a systemic review of existing Peer-reviewed journal articles on each type of e-commerce platforms. The patterns of behaviour and operational challenges specific to each platform because evident through content analysis of secondary data. The themes identified in this study are highly relevant to the research questions and objectives, as they provide insight into the functioning of different e-commerce platforms and the challenges they face. Each theme not only adds value by helping to differentiate between platform types but also contributes to a broader understanding of e-commerce dynamics.

4.2.1 Theme 1: business-to-business platforms

B2B platforms are characterised by large transaction volumes but less individual involvement (Rosário & Raimundo, 2021). These platforms are primarily concerned with business relationships and bulk transactions. These are noted for their user convenience and extensive product ranges, making them the most popular type of e-commerce platform. The user-friendly interfaces and ability to cater to individual consumer preferences have contributed to their widespread adoption and high transaction volumes (Alnoor, 2021). However, while B2C platforms continue to dominate, the challenge remains in keeping up with rapid technological advancements and shifting consumer expectations (Liao et al., 2023).

Platforms for (B2B) transactions are emerging models that enable customers to sell their goods or services to companies, hence facilitating novel interactions and impacting enterprise operations (Krishnamurthy & Kumar, 2015). These platforms focus on bulk transactions with lower individual engagement than B2C platforms. The literature notes that B2B platforms focus on efficiency and reliability over user experience, catering primarily to business clients who value streamlined processes and cost savings (Al-Lami & Alnoor, 2021). This distinction of focus may limit the adaptability of B2B platforms in adopting consumer-facing innovations that are more prevalent in B2C models.

4.2.2 Theme 2: consumer-to-consumer platforms

C2C platforms cater to specific specialised markets and allow for varying degrees of user participation. In their study, Srivastava and Kumari (2024) analyse the distinctive user experiences and market sectors that C2C platforms cater to. These platforms serve niche markets with variable user engagement, as they rely heavily on user-generated content and peer-to-peer transactions (Srivastava & Kumari, 2024). C2C platforms often face challenges related to trust and quality assurance, which are less of a concern in B2B or B2C contexts. The evolution of C2C platforms, especially with the rise of digital marketplaces, has introduced new dynamics in terms of consumer trust and platform governance.

4.2.3 Theme 3: business-to-consumer platforms

B2C platforms directly facilitate transactions between businesses and consumers. B2C platforms offer a variety of goods and services and prioritise user experience and convenience (Natarajan, 2022). This ensures that the needs of everyday consumers are catered for. Marketing strategies, such as personalised recommendations and targeted advertising are used to develop customer engagement and to increase sales. Unlike C2C or B2B models, B2C platforms generally have higher user engagement due to the direct interaction between consumers and businesses (Faccia et al., 2023)

Challenges faced by B2C platforms include maintaining customer trust and ensuring product quality. This is particularly significant in the face of competition from emerging C2C platforms and online marketplaces. The speedy advancement of mobile commerce has urged B2C platforms to implement mobile-friendly designs and features to cater for consumers, particularly consumers who prefer shopping via their smartphones. As the world of technology continues to evolve and reshape the retail landscape, B2C platforms also need to deal with challenges, such as data privacy and security due to consumers being anxious about their personal information. Understanding these aspects is imperative for businesses aiming to succeed in the competitive B2C environment.

4.2.4 Theme 4: consumer-to-business platforms

C2B platforms allow consumers to offer goods and services directly to businesses. This reverses the traditional transaction flow. C2B platforms highlight flexibility and personalisation, which allows businesses to gain insight into consumer skills. Unlike B2C and B2B platforms, C2B provides consumers with opportunities to negotiate pricing, scope and terms, thus empowering consumers (Krishnamurthy & Kumar, 2015). However, C2B platforms face distinctive challenges in relation to maintaining consumer interest and ensuring quality control. To address this, as technology and the digital world develop, businesses are using customer feedback and reviews more frequently to assist in shaping their products and marketing plans (Alyoubi, 2015).

The growth of C2B platforms show that businesses and consumers are working more closely together. Consumers assist in shaping businesses' offerings. This brings about new ideas, however, it also means that businesses require competent systems to manage consumer input and maintain high quality.

4.2.5 Theme 5: social and mobile commerce platforms

Emerging platforms, like social and mobile commerce, represent the latest evolution in e-commerce, integrating social media dynamics and mobile technology to enhance user engagement and convenience (Rosário & Raimundo, 2021). These platforms have grown in popularity because they offer personalised shopping experiences and leverage social proof through user interactions and reviews.

While these categorisations provide a clear overview of e-commerce platform types; the rapid pace of technological change necessitates continuous updates to these frameworks. The current literature may not fully account for hybrid models or the growing influence of AI and machine learning on platform dynamics and consumer behaviour. Additionally, regional and cultural factors influencing the adoption and adaptation of these platforms are underexplored, necessitating more localised research to better understand the global e-commerce landscape (Mazhar et al., 2022)

4.3 Objective 2: the behaviour of consumers using e-commerce platforms

Objective 2 focuses on how consumers behave when using e-commerce platforms, and what factors influence their purchasing decisions. Table 4.3 presents key consumer behaviours associated with trust in e-commerce.

Table 4.3.1 consumer behaviour and decision-making as shown in the table below:

Behaviour	**Key Drivers**	**Supporting Authors**
Shopping cart abandonment	Concerns about security, unexpected costs, or poor user experience.	Bulbulia and Schaefer (2021), Goga et al. (2019)
Security concerns	Influence of data breaches, trust seals, and payment security.	Hendricks and Mwapwele (2023), Higueras-Castillo et al. (2023)
Customer service quality	The role of responsiveness, return policies, and issue resolution.	George and van Eeden (2020), Luo et al. (2023)
Impact of the pandemic	Changes in consumer preferences due to COVID-19.	Sheth (2020), Pantano et al. (2021)

Consumer trust in e-commerce is shaped by various factors, including security concerns, perceived value, and convenience. The ability of an e-commerce platform to establish trust determines consumer engagement and purchasing behaviour. The table 4.3.2 outlines the key factors which influence consumer trust.

Table 4.3.2: factors influencing consumer trust in e-commerce as shown in the table below:

Factor	**Description**	**Supporting Authors**
Perceived value	The extent to which consumers feel they receive value for money.	Eastman et al. (2023), Luo et al. (2023)
Convenience	Ease of access, usability, and efficiency of platforms.	Bulbulia and Schaefer (2021), George and van Eeden (2020)
Security concerns	Worries about data privacy, fraud, and payment security.	Higueras-Castillo et al. (2023), Hendricks and Mwapwele (2023)
Personalisation	Customization of shopping experiences based on user preferences.	Hollebeek and Macky (2019), Rosário and Raimundo (2021)
Customer experience	Overall satisfaction with customer service and platform design.	Gulfraz et al. (2022), Degutis et al. (2023)

The following themes for objective two emerged from a combination of secondary data sources, including academic literature, industry reports, case studies, and consumer feedback. Academic research on e-commerce trends, consumer behaviour, and online shopping provided the theoretical foundation for themes like perceived value and cart abandonment, while industry reports offered insights into consumer preferences, security concerns, and service quality. Case studies from platforms like Takealot and Amazon provided practical examples of how these themes manifest in real-world scenarios, and consumer feedback highlighted concerns such as high shipping costs and security risks. The themes were identified through systematic content analysis, where key concepts were recognized through thematic analysis of the data, revealing recurring patterns such as the importance of convenience and security. These themes were then synthesized and linked to the research questions, providing a comprehensive understanding of the factors that influence consumer behaviour and the operational success of e-commerce platforms

4.3.1 Theme 1 - consumer behaviour and decision-making

Shopping cart abandonment is a common challenge in e-commerce, often attributed to high shipping costs, unexpected fees, complex checkout procedures, and poor user experience (Bulbulia & Schaefer, 2021; Goga et al., 2019). Addressing these difficulties through transparent pricing, streamlined checkout processes, and multiple payment options could improve conversion rates and reduce abandonment.

Security concerns significantly influence consumer behaviour. Worries about data privacy, fraud, and payment security impact whether consumers proceed with online transactions (Hendricks & Mwapwele, 2023; Higueras-Castillo et al., 2023). Trust seals, encryption, and fraud protection can enhance consumer confidence and reduce security-related hesitation.

High-quality customer service is crucial in fostering trust and loyalty among consumers. Responsiveness, effective return policies, and issue resolution play a vital role in shaping consumer behavior (George & van Eeden, 2020; Luo et al., 2023). Platforms with efficient customer support ensure a seamless shopping experience, improving consumer retention.

The COVID-19 pandemic significantly altered consumer behaviour, shifting preferences toward online shopping due to lockdown restrictions (Sheth, 2020; Pantano et al., 2021). Many consumers who were initially hesitant to shop online adopted e-commerce during this period, and businesses had to adjust by improving digital experiences to meet the growing demand.

4.3.2 Theme 2 - factors influencing consumer trust in e-commerce

Perceived value plays a key role in consumer trust. Consumers assess whether they receive good value for money based on pricing, product quality, and additional benefits (Eastman et al., 2023; Luo et al., 2023). Competitive pricing, quality assurance, and promotional offers can enhance perceived value and strengthen trust.

Ease of access, usability, and efficiency influence how much consumers trust an e-commerce platform (Bulbulia & Schaefer, 2021; George & van Eeden, 2020). Platforms that provide a hassle-free shopping experience, clear navigation, and efficient delivery services are more likely to retain customers.

Security concerns directly impact consumer trust in e-commerce. Data breaches, fraud risks, and payment security issues deter consumers from making purchases (Higueras-Castillo et al., 2023; Hendricks & Mwapwele, 2023). Businesses that prioritize strong cybersecurity measures, such as secure payment gateways and encryption, can build long-term trust with consumers.

Customization of shopping experiences based on user preferences enhances consumer engagement and trust (Hollebeek & Macky, 2019; Rosário & Raimundo, 2021). Personalized recommendations, targeted promotions, and tailored customer interactions create a more satisfying shopping journey.

A positive customer experience, surrounding platform design, ease of navigation, and efficient customer support, is essential in fostering consumer trust (Gulfraz et al., 2022; Degutis et al., 2023). Businesses that prioritize user-friendly interfaces and high-quality service enhance customer satisfaction and encourage repeat purchases.

4.4 Objective 3: strategies for enhancing consumer trust

E-commerce platforms adopt various strategies to enhance consumer trust. These strategies involve transparent pricing, improved security measures, and AI-driven personalization. The table below highlights the key trust-building strategies

Table 4.3.1 strategies for building consumer crust as shown in the table below:

Strategy	**Implementation Method**	**Supporting Authors**
Transparent pricing	Clear cost structures with no hidden fees.	George and van Eeden (2020), Bulbulia and Schaefer (2021)
Trust marks and certifications	Use of security seals and third-party verification.	Thompson et al. (2019), Nguyen et al. (2023)
Improved customer support	24/7 assistance, chatbots, and quick issue resolution.	Hollebeek and Macky (2019), Luo et al. (2023)
AI-powered personalization	Customizing user experiences based on browsing history.	Rosário and Raimundo (2021), Higueras-Castillo et al. (2023)
Secure payment systems	Multi-factor authentication and encryption for transactions.	Hendricks and Mwapwele (2023), Degutis et al. (2023)

Source: Own (2024)

The following themes for objective three emerged through a combination of consumer behaviour research, technological developments, and the evolution of e-commerce platforms. The growing complexity of online transactions—fuelled by digital technologies and shifting consumer expectations—created new areas for investigation. As e-commerce grew from a niche market into a global industry, scholars turned their attention to the elements that help foster trust, leading to an expansion of research themes to address transparency, service quality, security, usability, privacy, and cultural variability. The rapid pace of digital innovation, such as the introduction of AI, blockchain, and new payment systems, also pushed the boundaries of traditional e-commerce research. Thus, these themes are a response to both the evolving technological landscape and the changing needs and behaviours of consumer

Transparent pricing is essential for consumer trust in e-commerce. Clear cost structures with no hidden fees ensure that consumers feel confident in their purchasing decisions (George & van Eeden, 2020; Bulbulia & Schaefer, 2021). Platforms that openly display itemized costs, including taxes and shipping fees, minimize the likelihood of shopping cart abandonment due to unexpected charges.

Trust marks and third-party certifications serve as critical trust-building tools in e-commerce. Websites displaying security seals, third-party verifications, or industry accreditations provide consumers with reassurance regarding data protection and transaction security (Thompson et al., 2019; Nguyen et al., 2023). The presence of these certifications increases credibility and consumer confidence in completing online transactions.

High-quality customer support is a crucial factor in consumer trust and loyalty. Providing 24/7 assistance, chatbots, and rapid issue resolution ensures that consumers feel supported throughout their shopping experience (Hollebeek & Macky, 2019; Luo et al., 2023). E-commerce platforms that invest in responsive and efficient customer service—whether through AI-driven chatbots or well-trained human representatives—can significantly enhance consumer satisfaction and trust.

AI-powered personalization enhances the online shopping experience by tailoring recommendations and content based on consumer browsing and purchase history (Rosário & Raimundo, 2021; Higueras-Castillo et al., 2023). By providing relevant product suggestions and customized promotions, e-commerce platforms can increase engagement and consumer trust. However, transparency in data usage and ethical personalization practices are necessary to ensure consumers feel secure in how their information is utilized.

Secure payment systems are fundamental in building consumer trust. Implementing multi-factor authentication, encryption, and fraud detection mechanisms reassures consumers that their financial data is protected (Hendricks & Mwapwele, 2023; Degutis et al., 2023). Offering a variety of secure payment options, such as digital wallets and buy-now-pay-later services, further enhances convenience and security. E-commerce platforms must also clearly communicate their security measures to ensure consumers are aware of the protections in place.

By implementing these strategies, e-commerce businesses can foster greater consumer trust and create a more reliable and secure online shopping environment.

4.5 Summary

The research objectives are directly addressed in this chapter, which also provides insight into the dynamics of e-commerce platforms, consumer behaviour and trust-building strategies. The data collected has been analysed in detail. The results demonstrate the substantial influence of consumer perceptions and trust-building strategies on purchase intentions, as well as the diversity of e-commerce platforms that meet the diverse requirements of consumers. The chapter also emphasises the necessity of customising e-commerce strategies to address regional-specific challenges and cultural distinctions, thereby underlining the necessity of a personalised approach in establishing consumer trust.

The analysis reaffirms the critical role of convenience, perceived value and high-quality customer service in fostering consumer engagement and loyalty. This is endorsed by extant literature. The study also identifies prospective research directions, suggesting areas for further exploration to deepen the understanding of e-commerce dynamics and to address emergent challenges in the digital marketplace. This summary provides a comprehensive overview of the study’s contributions to the field of e-commerce by encapsulating the main findings and discussions.

Chapter five concludes the study and provides recommendations for further research.

Chapter five conclusion and recommendations of the study

5.1 Introduction

In this chapter, the findings obtained from the data analysis are transformed into suggestions applicable to the objectives, and that fulfil the primary aim of the study. Using cutting-edge technology to better grasp customer behaviour and using smart trust-building techniques, the road plan emphasises the diversity of e-commerce platforms.

This chapter provides suggestions in a methodical manner, all of which are categorised into pertinent subheadings, with each proposal being linked to the related research aim. This technique guarantees that the suggestions are clearly contextualised within the larger framework of the research, thus giving a plan that is both logical and comprehensive for tackling the difficulties that have been identified in the realm of e-commerce.

5.2 Conclusion of the study

The following are the key findings of the study:

Research Objective 1 analyses the different types of e-commerce platforms offered for public use.

According to the findings, B2C platforms are the most frequently used in the e-commerce scene. This dominance is driven by the preferences of consumers for ease and perceived value. The research, however, draws attention to the difficulties that relate to trusting online transactions. These difficulties include concerns about security and privacy, as well as the impersonal aspect of online shopping. It has been discovered that trust-building techniques, like honest communication, secure payment alternatives and high-quality customer service, are essential in developing long-term loyalty and increasing consumer confidence.

Research objective 2 analyses consumer behaviour using e-commerce platforms

When it comes to fulfilling the objectives of the research, the study demonstrates that it is necessary for the success of e-commerce platforms to have a comprehensive awareness of customer behaviour, in addition to the strategic application of trust-building measures. The findings of the study are consistent with previous research, highlighting the significance of openness, security and customisation in the process of building customer trust and participation.

Research Objective 3 analyses trust building strategies for consumer trust in e-commerce
The study further elucidates the influence that advanced technologies, such as AL and ML, have on the development of the e-commerce experience through their provision of greater customer service and tailored suggestions. On the other hand, it warns against placing an excessive amount of dependence on technology and emphasises the need to adopt a balanced strategy that considers possible difficulties and constraints.

The findings of the study, taken as a whole, provide a significant contribution to the expanding body of knowledge about e-commerce, offering insightful information to academics, regulators and companies. The research suggestions provide actionable techniques for strengthening customer trust, enhancing e-commerce platforms and driving development in the digital economy. The research highlights the importance of ongoing innovation, ethical standards and consumer-centric tactics in the process of constructing an e-commerce ecosystem that is both sustainable and trustworthy.

5.3 Recommendations of this study

The recommendations that stemmed from the study are as follows:

The primary aim of this study was to find diverse e-commerce models. Companies need, therefore, to go beyond the mostly B2C paradigm and include a wider spectrum of platforms, including C2B, C2C and B2B. This would allow them to address the first research objective. The survey reveals that B2C platforms are used extensively since they are convenient and straightforward. On the other hand, businesses could adapt to specific markets that thrive on peer-to-peer interactions by investing in creating C2C platforms. This helps to build community-driven commerce and enables more tailored customer experiences. Through this variety, various customer categories would be guaranteed acceptable service, broadening the market base and promoting inclusion.

The research emphasises the digital gap as a major obstacle in online commerce, as individuals without a suitable internet connection or adequate digital literacy suffer. E-commerce platforms should give increased accessibility top priority in order to solve this issue, particularly for populations without basic services. This might involve the creation of platforms fit for mobile devices, user-friendly interfaces catering to various degrees of digital literacy and help available in many languages. Furthermore, working with local governments and non-governmental organisations (NGOs) to improve internet infrastructures in rural areas could help close the digital divide and aid all clients to engage in the digital economy.

E-commerce platforms must use synthetic intellect and machine gaining knowledge to furnish purchasers with unique shopping experiences. In line with the second study aim, understanding consumer behaviour is crucial. The research findings reveal that factors, for example, perceived benefit, perceived safety and comfort, notably influence customer conduct, all of which could be enhanced through technology. Platforms can deliver customised item tips, optimise pricing techniques and individualise marketing initiatives by examining information collected from users. For example, analytics empowered by means artificial intelligence can identify developments and preferences, enabling platforms to offer items applicable to the users' needs. This builds the probability of individuals making a purchase and improving purchaser happiness. Moreover, the utilisation of synthetic intelligence allows platforms to continually enhance their capabilities and supply worthwhile experiences that stimulate return visits and loyalty in the long run.

The incorporation of real-time feedback systems into e-commerce platforms is recommended in order to better comprehend and address the requirements of customers. These might include chatbots driven by artificial intelligence that provide quick service to customers and collect feedback from users while they are interacting with them. Platforms are able to swiftly alter their products and enhance service quality by gaining an understanding of real-time consumer concerns and preferences. This allows platforms to address issues before consumers leave negative reviews or abandon their shopping carts. By taking this initiative, not only would the client experience be enhanced, but long-term loyalty would be fostered.

It is essential that platforms emphasise both data security and openness in order to fulfil the third study aim, which is to investigate trust-building tactics. The research underscores the crucial role that clear communication plays in the process of gaining customer confidence, particularly with respect to pricing, return policies and data privacy standards. In order to guarantee that these components are not only clearly presented but also readily understood by customers, e-commerce platforms should make the necessary adjustments. Consumers may be reassured about the safety of their personal information by, for example, simplifying the language used in privacy policies and offering guidance on data protection that is simple to follow.

The foundation of trust in online commerce involves efficient customer service. According to the study, companies need to provide user-friendly and fast service if they want to gain their consumers' confidence. This can only happen if e-commerce platforms invest in robust customer service systems. These systems should incorporate chatbots powered by artificial intelligence for providing rapid help, in addition to human support for more complicated difficulties. Further strengthening customer confidence and encouraging recurring business may be accomplished by improving post-purchase services. This can be accomplished by providing prolonged return windows and return procedures that are hassle-free.

5.4 Practical/ managerial implications

The study findings have significant ramifications for e-commerce platforms and their strategies. E-commerce systems should prioritise providing a smooth and gratifying customer experience. This would entail improving the interfaces of websites and apps, minimising loading times, and ensuring that the purchasing experience is both easy and efficient. Platforms that demonstrate exceptional performance in these areas are more likely to retain clients and foster repeat purchases. The research affirms that the primary factors in attracting and maintaining customers are convenience and user-friendliness.

Trust is a fundamental element of thriving e-commerce. The report highlights the importance of platforms being transparent in their operations, offering excellent customer support and guaranteeing safe transactions. Consumer confidence is enhanced by transparent pricing, detailed product descriptions and clear return procedures. Additionally, swiftly addressing complaints and resolving difficulties through proactive customer service further contributes to building trust. Robust payment choices, including cutting-edge encryption technology and fraud detection methods, are essential for safeguarding customer data and cultivating confidence.

C2C and C2B platforms offer the possibility of focusing on specific market segments that are often neglected by bigger B2C and B2B platforms. These platforms may use consumer-driven information to customise their offers to individual audiences, delivering distinctive goods and services that cater to the specific requirements of these markets. The report proposes that C2C and C2B platforms should persist in innovating and formulating strategies that specifically target these specialised markets, thus cultivating a devoted client following and setting themselves apart from rivals.

The research emphasises the need to customise e-commerce tactics to address challenges specific to different regions. Distinct locations may have specific obstacles, such as differing degrees of internet accessibility, payment systems and customer confidence in online purchases. E-commerce platforms should be cognisant of these geographical disparities and adapt their strategies appropriately. Platforms in locations with limited credit card use may emphasise mobile payment options or cash-on-delivery services to accommodate the preferences of local consumers.

As technology develops e-commerce platforms should include the most current technological innovations if they are to be competitive. This covers the use of augmented reality for virtual trials, artificial intelligence for custom recommendations and blockchain research for secure transactions. According to the studies, companies that use these technologies are more likely to enhance the purchasing experience and build consumer trust.

Improving conversion rates depends on solving the issue of cart abandonment. The survey confirms that the major reasons consumers leave their shopping carts are unexpected costs, complex checkout processes and security concerns. To lower rates of desertion, e-commerce sites should give top priority to simplifying the checkout process, guaranteeing pricing transparency and providing a range of payment options. Platforms may also use retargeting strategies and follow-up emails on consumers who have shopped online but did not complete the purchase with items still pending and remain open. The study confirms that major reasons consumers stop their shopping carts are unanticipated costs, complicated checkout processes and security concerns. To lower rates of desertion, e-commerce sites should give top priority to simplifying the checkout process, guaranteeing pricing transparency, and providing a range of payment options. Platforms could also use retargeting strategies and follow-up emails contact consumers again who ignored their online shopping carts without making a purchase.

E-commerce platforms, customer behaviour and trust-building tactics are all topics that have been extensively researched, and the conclusions of this dissertation are relative with those findings. The prevalence of B2B and the crucial part that perceived value and convenience that take place when consumers have to make a decision, and it correlates between the study finding and the literature. The significance of these areas in affecting customer behaviour has been firmly established, and the data now available reaffirms their relevance in the framework of the e-commerce environment of today. With rapid advancements in technology and shifts in consumer expectations, these factors continue to drive purchasing decisions, shape brand loyalty, and influence the overall online shopping experience.

In a similar manner, the extant supporting evidence that affirms the value of transparency, great customer service, and safe payment alternatives in the process of establishing e-commerce consumer trustworthy relationships. The findings of these researchers have shown the need to use these areas to cultivate trust and loyalty among customers. The most recent data demonstrates that for e-commerce platforms to be successful in a very competitive market, they need to emphasise these factors.

However, the research also provides new insights, especially in the context of growing e-commerce models such as C2B platforms. These new observations are particularly informative. Present data offers empirical proof of the expanding importance of consumer-to-business platforms and the unique possibilities they provide for consumer-driven innovation. While prior studies, like emphasise the promise of C2B platforms, the present data proves their growing influence. This suggest that further study should continue to investigate the development of B2B platforms and the influence that these platforms have on the ecosystem of e-commerce.

In addition, the research sheds light on the persistent problems of security concerns and cart abandonment, both of which have been widely studied in the existing body of literature. No matter how much progress has been made in terms of technology and platform design, the data demonstrates that these problems continue to be substantial obstacles to online purchasing.

Considering this, it is imperative that ongoing efforts be made to improve security measures and optimise user experience to break down these barriers to online purchasing.

5.5 Limitation of the study and directions for future research

This study was conducted over the period from 2022 to 2024. While the timeframe itself is not considered a limitation, the data collection method was. This research relied on desktop qualitative methods, which precluded participation from individuals and did not include interviews or surveys or questionnaires because no primary data was collected. Future research could address this limitation by incorporating face-to-face interviews or surveys to gain a more comprehensive understanding of current trends in consumer trust in e-commerce.

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Appendix A: Ethics approval

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

Mr Shayur Dhaja (218025990)
School Of Man Info Tech &Gov
Westville

Dear Mr Shayur Dhaja,

Original application number: 00021112
Project title: Evaluating strategies of consumer trust in e-Commerce

Exemption from Ethics Review

In response to your application received on 14 May 2023 , your school has indicated that the protocol has been granted **EXEMPTION FROM ETHICS REVIEW.**

Any alteration/s to the exempted research protocol, e.g., Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through an amendment/modification prior to its implementation. The original exemption number must be cited.

For any changes that could result in potential risk, an ethics application including the proposed amendments must be submitted to the relevant UKZN Research Ethics Committee. The original exemption number must be cited.

In case you have further queries, please quote the above reference number.

PLEASE NOTE:
Research data should be securely stored in the discipline/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours sincerely,

[redacted] ---------------------------- 29/05/2023
[redacted]amede
Academic Leader Research
School Of Man Info Tech &Gov

UKZN Research Ethics Office
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Website: http://research.ukzn.ac.za/Research-Ethics/

Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

INSPIRING GREATNESS

Appendix B: Turnitin report

FINAL TURNITIN v1.pdf

ORIGINALITY REPORT

10%	7%	5%	2%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	digitalcommons.usf.edu Internet Source	<1 %
2	Tobias Wulfert. "Selected Perspectives on Platforms in E-Commerce Ecosystems", Springer Science and Business Media LLC, 2024 Publication	<1 %
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6	Saarah Hendricks, Samwel Dick Mwapwele. "A systematic literature review on the factors influencing e-commerce adoption in developing countries", Data and Information Management, 2023 Publication	<1 %
7	repository.up.ac.za	

Appendix C: Proof of language editing

S E Matthis (B A Hons)

70 Knightsbridge Village, Eileen St, Johannesburg 2191

Email:[redacted]

Cell: [redacted]

20 November 2024

TO WHOM IT MAY CONCERN

This serves to confirm that I have proofread and language edited the following dissertation:

Evaluating strategies for consumer trust in e-commerce

by

Shayur Dhaja

[redacted]

S E Matthis

20 November 2024