

Determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour

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Dissertation accepted in fulfilment of the requirements for the degree **Master of Commerce** in **Marketing Management** at the North-West University

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DECLARATION

I, Mignon Ferreira, declare that this research dissertation, titled:

**“Determining the influence of the COVID-19 pandemic
on consumers’ online shopping behaviour”**

is my own work and that all the sources used or quoted have been acknowledged as well as indicated by means of complete references, and that this dissertation has not previously been submitted by me or any other person for a degree at this or any other university.

Signature:

Date: 25 November 2022

LETTER FROM THE LANGUAGE EDITOR

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Dear Mr / Ms

Re: Language editing of dissertation (Determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour)

I hereby declare that I language edited the above-mentioned dissertation by Ms Mignon Ferreira (student number: 27025489).

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Kind Regards,

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ACKNOWLEDGEMENTS

I would like to express my gratitude to those who encouraged, supported and guided me through this process.

- To **God**, for the endless strength He provided me with. I would like to thank Him for listening, for His guidance, and for His continuous love. I thank you, Lord, for being with me.
- My Parents, **Michael Ferreira** (father) and **Magda de Jongh** (mother), thank you for the opportunity to be able to pursue my dreams. Thank you for believing in me and for the endless support, love and patience that you have shown me. I am beyond proud to be your daughter, to share your blood, and to call you mine. I thank God for the parents He gave me. You mean the world to me and *I love you endlessly*.
- To **Ezette Ferreira** (stepmother), thank you for standing alongside my dad and me throughout this process. Thank you for the person you are to my dad and the support and love you have shown me. I appreciate you.
- To **Fanie de Jongh** (stepfather), thank you for being there throughout this process. Thank you for your motivation and encouragement. It is much appreciated throughout these years.
- My person, **Matthew Prior**, thank you for always lifting up my spirit and for the endless motivation, support and love you show me. You reminded me why I started, and encouraged me to finish what I am passionate about. Thank you for the laughter when I needed it the most. I thank God, because He knew. *I love you so much*.
- My supervisor, **Dr Clarise Mostert**, you are a wonder-woman and one of a kind. Thank you for going above and beyond in your guidance, support, advice and assistance in completing this research study.
- To Prof Verona Leendertz, thank you for your guidance as well as support throughout this process.
- To Mrs Cecile van Zyl, for your professional language editing.
- To Dr Marike Cockeran, for the assistance with the statistical analyses of this study.
- To Mr Leon Du Preez, for his assistance in the technical editing of this research study.
- The rest of my family and friends, thank you for all the messages, encouragement, and motivation through this process. It meant a lot to me, and I appreciate you.
- To all respondents who participated in this research study, I would like to thank you for making it possible and taking the time to contribute towards this research study.

Mignon Ferreira
Vanderbijlpark
2022

ABSTRACT

Keywords: COVID-19, online shopping, online shopping behaviour, e-loyalty, online business

The COVID-19 pandemic unexpectedly disrupted the world. The pandemic caused severe impacts on consumers' and businesses' activities. In order to curb the spread of the virus, governments across the world implemented lockdown rules, regulations and harsh restrictions. Individuals were prevented from leaving their homes or crossing borders and were only permitted to purchase essential items. This caused many businesses to close their doors, severely impacting consumers' daily routines. The disruption of the COVID-19 pandemic caused fear among consumers. In response to the crises and regulations, consumers changed their behaviour by shopping online. This caused an unexpectedly sharp rise in online shopping. Knowledge of consumer behaviour is considered an essential factor for business success. A broader understanding of consumers and their behaviour will enable marketing managers to customise their marketing strategies in such a way as to increase consumer spending by providing consumers with products and services that effectively satisfy their needs and also to increase customer loyalty in the long term.

A descriptive research design with a quantitative research approach was utilised in this study. The target population was individuals 18 and older who engaged in online shopping during the COVID-19 pandemic. A non-probability snowball sampling method was used with a self-administered online questionnaire to collect the data for the research study. The constructs included in the questionnaire to measure consumers' online shopping behaviour during the COVID-19 pandemic were measured against a four-point Likert scale. Thirty-two items from six constructs were included in the online questionnaire. The constructs included pandemic fear (PF), online shopping intentions (OSI), perceived ease of use (PEU), perceived usefulness (PU), privacy and trust (P&T) and e-loyalty (E-L). The link to the online questionnaire was distributed on social media platforms, such as Facebook and Instagram, by posting an advertisement explaining the purpose of the study to respondents. In total, 280 questionnaires were completed and valuable for inclusion in data analysis. Consumers' online shopping behaviour was recorded on a four-point Likert scale which measured 32 items concerning influences of the COVID-19 pandemic.

The collected data was statistically analysed using SPSS version 26 (descriptive statistics, reliability, validity, exploratory factor analysis, correlation analysis) and Mplus statistical software analysis (structural equation modelling). Results of this research study revealed that from the original six constructs included in the questionnaire, some items from the online shopping intentions construct were grouped with items from PF, PEU, PU and E-L, in the exploratory factor

analysis (EFA), based on similar characteristics. Similarly, the items from PEU and PU were grouped in one construct: perceived ease of use and usefulness (PEU&U). This is considered a novel contribution from this research study. As such, this resulted in four constructs from the EFA: PEU&U, PF, P&T and E-L. From the EFA, it was clear that PEU&U had the highest mean value. Easy-to-use and practical online shopping platforms would satisfy consumers' needs in their quest for goods and services during and after the pandemic.

Furthermore, the correlation analysis revealed that the only practically significant relationships exist between PEU&U and PF, PEU&U and P&T, and P&T and E-L. This implies that consumers will perceive online shopping as easy and useful if it helps them to feel less fearful of the pandemic. As this happens, any concerns they might have regarding their privacy and trust when shopping online will also decrease. Lastly, structural equation modelling (SEM) was conducted to determine the effect of PEU&U, PF, and P&T on E-L. From the SEM, it was evident that PEU&U has the most significant effect on E-L. As such, if marketing managers and business owners want to increase consumers' online shopping behaviour after the COVID-19 pandemic, it is crucial to ensure that their PEU&U of online stores is high. Consumers want online stores that are easy to navigate and that provide various products to satisfy their needs.

The results of this study assist marketing managers and business owners in understanding consumers' online shopping behaviour during the COVID-19 epidemic. In addition, the results also contribute to the literature in the field of research. Furthermore, the recommendations can assist online businesses in creating online stores that not only satisfy consumers' needs effectively but also provide insight into the factors that influence consumers' e-loyalty toward the online store.

KEY TERMINOLOGIES USED IN THE STUDY

COVID-19

He *et al.* (2020:719) define COVID-19, also known as the coronavirus disease, as a group of multi-diverse viruses that cause diseases among both humans and animals. (Shereen *et al.*, 2020:91) add that the coronavirus disease (COVID-19) is a virus that is highly contagious and spreads quickly between individuals. Craven *et al.* (2020:2) continue by stating that the current pandemic indirectly impacts businesses due to the rapid spread of COVID-19.

Online shopping

The traditional way of shopping has been offered a powerful replacement, namely online shopping (Mallapragada *et al.*, 2016:21). Musa *et al.* (2016:448) define *online shopping* as the process where individuals make specific purchases over the internet, which may be services or products. Cai and Cude (2016:339) add that online purchasing is a variety of actions that include searching for items to purchase online while dealing with different payment options and interaction between individuals and the online stores.

Online shopping behaviour

Bhatti *et al.* (2021:110) indicate that online shopping behaviour is individuals' unique actions before or during the process of purchasing products and services by making use of the internet. Online shopping behaviour is indicated by those behaviours of individuals that drive them to consider buying products or services online (Sahu, 2020:3).

Electronic loyalty (e-loyalty)

Shafiee and Bazargan (2018:30) state that electronic loyalty (e-loyalty) is the consumer's attitude towards an online business, which results in leading consumers to practise re-purchasing behaviour. Nguyen and Khoa (2019:82) further add that a consumer's e-loyalty involves not only the repeat purchase behaviour of consumers, but also constantly making use of a specific online business and not shuffling between similar online businesses.

Online business

With the development of the internet and the rapid change in the technological environment, traditional businesses transitioned into online businesses by offering their products and services through an online website, channels or online stores (Ijaz & Rhee, 2018:2).

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

As consumers used to know it, typical day-to-day life has been impacted severely by the current COVID-19 virus as harsh rules and regulations on the free movement of individuals due to the severe contagiousness and spreading of the coronavirus (COVID-19) were implemented (Adams-Prassl *et al.*, 2020:2). Furthermore, only businesses offering products and services considered as essential were allowed to operate during the regulations imposed by Government in an attempt to curb the spread of the virus. Grashuis *et al.* (2020:1) add that the pandemic reshaped the way individuals purchase products and services. The pandemic caused many individuals to undertake a new way of doing their shopping, by purchasing a variety of products and services online (Tran, 2021:1).

Sardjono *et al.* (2021:1) assert that the internet in the world of today has become an increasingly used tool by individuals. With the use of the internet, one of the most prominent activities thereof is online shopping. The traditional way of shopping has been given an alternative, namely online shopping, which is becoming highly popular among internet users (Kasuma *et al.*, 2020:32). Furthermore, Lissitsa and Kol (2016:305) continue by stating that the use of online shopping has swiftly increased not only locally, but also internationally.

He *et al.* (2020:719) propound that the COVID-19 virus is a threat that reaches all corners of the world. Buil-Gil *et al.* (2021:47) assert that as the current COVID-19 pandemic struck the world, harsh restrictions were implemented to reduce the spread of the virus, which impacted businesses and individuals in different ways. Individuals' standard working patterns, their way of consuming, the regular social gatherings and interactions of individuals, how businesses do business and interact with consumers, and countries' day-to-day services are examples of how the current restrictions influence businesses and individuals alike.

The United Nations Conference on Trade and Development (UNCTAD, 2020) indicates that the COVID-19 pandemic changed online shopping, as individuals now purchase more online than before the current pandemic. The Organisation for Economic Co-operation and Development (OECD, 2020) continues by indicating that the pandemic crisis expanded online purchasing. Furthermore, it enlarged different dimensions of online shopping through a more extensive range of businesses entering the online platform community, as well as a greater consumer segmentation (via a variety of different age groups now also exploring the segmentation of online shopping). This resulted in an enormous expansion of products and services offered online.

Deloitte (2021) indicates that not only are business conditions permanently changing for business-to-business and business-to-consumers' actions because of the COVID-19 pandemic, but demand for online purchasing has also significantly increased; consumers and businesses minimised the spread of the pandemic by letting individuals stay home and purchase or run the business online. This is evident from the rapid rise in online visits and online traffic from June 2019 (16 billion visits) to June 2020 (close to 22 billion visits) (Clement, 2020b). Kelly (2020) adds that businesses have been forced by the COVID-19 pandemic to take the opportunity to move towards the online business sector.

The following sections focus on the background and research problem of the study. Subsequently, a literature review will provide a theoretical framework, followed by the research objectives and research methodology. Finally, an overview of the contribution of the research study and a preliminary chapter outline of the dissertation concludes the research proposal.

1.2 BACKGROUND AND RESEARCH PROBLEM

According to Clement (2020a), a significant global increase in consumers' online behaviour during the pandemic accounted for 73% higher traffic volumes in different online purchasing categories. Clement (2020c) further states that, globally, individuals spend 15% more of their time focusing on online shopping than before the pandemic.

Bhatti *et al.* (2020:1450) indicate that during the COVID-19 pandemic, over 50% of consumers avoided traditional shopping, as well as all crowded spaces to avoid the further spread of the virus. Furthermore, Bhatti *et al.* (2020:1450) state that online shopping increased during COVID-19 and changed the general way of doing business.

MasterCard (2020) released a statement confirming that South Africans spend over 68% more on online purchases during the current pandemic. As online purchasing behaviour increased during the pandemic, South Africans spend over 50% more on purchasing virtual experiences. Over 70% started learning how to use online banking systems. The most popular items individuals in South Africa purchased online were cellular airtime and data, textiles and groceries (MasterCard, 2020).

Kim (2020:212) indicates that this COVID-19 pandemic has threatened business operations now more than any other business threat, and one of the only ways businesses would survive during these tough times of the COVID-19 pandemic is to transition into online shopping. Kashif and Aziz-Ur-Rehman (2020:326) assert that because of COVID-19, countries made strict rules and regulations during the pandemic to avoid the spread, and these rules and regulations of limiting movement impacted normal life activities such as shopping, events and public gatherings. Kashif

and Aziz-Ur-Rehman (2020:326) further state that individuals worldwide were encouraged, through these limitations, to shop online to reduce the spread of the virus.

Numerous researchers in this field express that the current pandemic changed, as well as influenced individuals' motives and their behaviour towards online shopping. During the COVID-19 pandemic, several studies have been conducted regarding the impact of the pandemic on consumer behaviour: Germany (Koch *et al.*, 2020:1), Vietnam (Tran, 2021:1), the United Kingdom (Buil-Gil *et al.*, 2021:48) and the United States of America (Grashuis *et al.*, 2020:2) were among the countries where this research has been conducted.

However, although research has been conducted to determine the influence of the COVID-19 pandemic on South African consumers' online shopping behaviour, it was determined from the literature that a gap in this research field exists to determine how these influences impacted consumers' future loyalty towards online businesses after the pandemic, with specific reference to e-loyalty.

1.3 LITERATURE OVERVIEW

It is clear that the pandemic had an immense impact on how consumers fight for their survival while attempting to accommodate a new way of life (Adams-Prassl *et al.*, 2020:2). Subsequently, as stated above, the COVID-19 pandemic changed consumers' motives and behaviour, specifically in terms of online shopping (Tran, 2021:1). Consumers' online shopping behaviour during the COVID-19 pandemic was reviewed before comprehending consumers' e-loyalty towards an online business in the long run.

The following section explains online shopping, the influence of the COVID-19 pandemic on consumers' online shopping behaviour, and the factors that influence on consumers' online shopping behaviour, while an overview on consumers' e-loyalty towards online businesses is provided.

1.3.1 Online shopping and the South African context

South Africa had in excess of 38 million active internet users in January 2021 and an excess of 41 million active internet users in January 2022, with over 28 million individuals accounting for mobile device internet users and social media users alone (Galal, 2022; Johnson, 2021). Solis (2021) indicates that online shopping is when items such as clothing, books, groceries, hardware and software, luxury items, insurance, and many more items are bought through the internet and other electronic platforms. Moreover, Sunitha and Gnanadhas (2014:1) explain that an online consumer is an individual who has internet access and who can pay for items through the provided methods.

Teuteberg (2020) propounds that those businesses slowly transitioned into the technological environment by providing consumers with an online shopping option. Watling *et al.* (2019) state that e-commerce platforms were narrowly being transitioned into businesses' digital strategies, leaving businesses far behind in the global technological online industry. Only 2% of retail spending in South Africa was through online shopping in 2019 (Kaiser, 2021).

Watling *et al.* (2019) indicate that even though businesses in South Africa are slowly busy providing online shopping options to consumers, over 50% of South Africans have access to the internet to participate in online purchasing. By engaging with online shopping activities, South Africans are also becoming more technologically advanced in the process.

Thenga (2021) states that, in South Africa, online shopping has become more popular over the last few years, with over 38% of current online users increasing their online purchasing habits. Daniel (2020) indicates that, in 2020, online purchasing in South Africa increased by over 30% in only the first half of the year. Daniel (2020) adds that the South African online store, One Day Only, had a sales increase of over 125%, and Takealot had a revenue increase of over 28% in 2020 alone. Furthermore, Watling *et al.* (2019) indicate that Woolworths' sales grew by over 34% since the release of the Woolworths online shopping application.

1.3.2 The influence of the COVID-19 pandemic on consumers' online shopping behaviour

Stiegler and Bouchard (2020:696) propound that South Africa had the strictest lockdown rules and regulations in the whole of Africa. During these restrictions, non-essential businesses, shops and restaurants remained closed, and individuals' movement was only allowed when they required emergency medical assistance and the purchasing of essential products. Furthermore, there was a restrictive ban on purchasing alcohol and cigarettes, and no social activities, including all sports, were allowed during this same period. McKinsey and Company (2020) further state that individuals feared using public transport and other transportation services, large, crowded spaces (indoor and outdoor), traveling in airplanes, and purchasing items in public areas.

In addition, this led to the COVID-19 pandemic influencing and reshaping the South African shopping industry by widening the online shopping sector (Morel, 2021). A press release from a worldwide company providing a payment solution, MasterCard (2020), indicates that since the current COVID-19 pandemic struck South Africa, online shopping has increased severely. COVID-19 increased South Africans' online shopping behaviour in the following ways: positive growth for online purchases in entertainment and virtual experiences, as well as all food-related items including takeout, household groceries, furniture and appliances. Furthermore, individuals

were encouraged through these restrictions and the opportunities offered by the online world to participate in online learning, especially how to cook and take dance lessons. It appears that some of the most purchased items during the lockdown are mobile data and airtime, as well as clothing items (MasterCard, 2020; McKinsey & Company, 2020). It is consequently clear that the COVID-19 pandemic, and the harsh restrictions implemented to curb the rapid spread of the virus, had a direct impact on the immense growth of online shopping within the South African context.

1.3.3 Understanding the factors influencing consumers' online shopping behaviour

Several factors play a role in consumers' online shopping behaviour. For the purpose of this research study, the focus was specifically on the influence of pandemic fear, online shopping intentions, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty as factors influencing South African consumers' online shopping intent during the COVID-19 pandemic.

1.3.3.1 Pandemic fear

A pandemic is described as a sudden disruption by a disease that spreads worldwide (Robinson, 2020; WHO, 2020). Fritscher (2020) asserts that fear is a human emotion that can trigger or enhance an exact behaviour through specific situations, causing further panic behaviour and anxiety.

The COVID-19 pandemic has influenced many individuals on different levels, with these experiences leaving them in fear. Saleem *et al.* (2020:2) indicate that due to the seriousness of COVID-19, governments implemented harsh lockdown regulations, limiting social gatherings and all movements. This resulted in individuals becoming fearful of the COVID-19 pandemic by containing the virus and spreading it.

The current pandemic has influenced consumer markets and businesses. Kim (2020:214) indicates that COVID-19 directly affected consumers' shopping behaviour. Kashif and Aziz-Ur-Rehman (2020:326) further remark that the COVID-19-imposed restrictions caused individuals to stress more than usual, intentionally pushing them to stay in their place of residence and using online shopping to contain and avoid spreading the virus. This resulted in the growth of online shopping among consumers who might not have engaged in online shopping behaviour before the COVID-19 pandemic.

1.3.3.2 Online shopping intentions

Singh (2014:7) indicates that intentions are the behavioural factors of a consumer and how these intentions motivate consumers to engage in doing something. Avcilar and Özsoy (2015:32)

remark that online shopping intentions can be described as an individual's plan and willingness towards purchasing an item online within a specific set amount of time.

According to Moslehpour *et al.* (2018:3), consumers intend to purchase from online stores when these platforms have an excellent search feature, including different catalogues. Furthermore, consumers' online shopping intentions will increase if they have overall trust in the online store, the pricing of the products and services, and the various payment options. (Bhatti & Rehman, 2020:39) assert that online shopping benefits from the online shopping intentions of individuals by offering a wide variety of items.

1.3.3.3 Perceived ease of use

Kamal *et al.* (2020:2) indicate that there are multiple models developed for individuals willingly accepting new technology, and that the most established model is the technology acceptance model (TAM), which consists of the two primary constructs known as perceived ease of use and perceived usefulness. According to Hamid *et al.* (2016:645), an individual's attitude towards making use of the technology is presumed by the model TAM.

Perceived ease of use asserts that as an individual's trust in the online store increases, the usage of specific technologies is done without any related effort to use the technologies (Hamid *et al.*, 2016:646; Tubaishat, 2018:380). Moslehpour *et al.* (2018:4) add that perceived ease of use can be described as consumers who find technologies, different functions of the internet, and web interfaces easy to use.

Cheema *et al.* (2013:133) indicate that consumers' online shopping intentions are highly affected by the perceived ease of use of the online store. Consumers will therefore favour online shopping if they perceive the online platform as easy to use, when they can easily search for information on the items, and when the payment during the purchasing process is made easy. Indarsin and Ali (2017:996) describe that perceived ease of use is the confidence level a consumer has to make the technology work. Kanchanatane *et al.* (2014:3) indicate that consumers' intentions to shop online are affected directly and indirectly by perceived ease of use.

1.3.3.4 Perceived usefulness

Mutahar *et al.* (2018:186) assert that perceived usefulness is one of the main constructs of the technology acceptance model (TAM); this construct is used in the TAM as it is to some degree affecting individuals' intentions to make use of the internet as well as to adopt technology. Perceived usefulness is the belief that the use of a specific technology is highly beneficial in enhancing the individual's performance (Hamid *et al.*, 2016:646; Tubaishat, 2018:380). Cheema *et al.* (2013:133) posit that a consumer's perception that online shopping will be useful increases

their engagement with online shopping activities. Furthermore, Moslehpour *et al.* (2018:3) note that perceived usefulness positively affects consumers' intentions to make use of online purchasing.

Cho and Sagynov (2015:24) mention that consumers who have little time to do shopping find online shopping useful, as it saves time and is convenient for these consumers. Consumers' online shopping intentions are magnified by the belief that the performance of the online platform enhances their productivity through the perceived usefulness of the online store (Cho & Sagynov, 2015:24).

1.3.3.5 Privacy and trust

The Office of the Australian Information Commissioner (OAIC, 2021) defines privacy as the process of a consumer's ability to control who uses personal information and how this information is handled, while Abdullah and Saleh (2019:599) define trust as the consumer's behaviour of feeling confident and secure towards an action, another individual, or a business operation, specifically in the online environment.

Pappas *et al.* (2013:40) propound that the privacy and trust of consumers are essential factors to understand, because each level of privacy and trust of a consumer towards online shopping might differ. Privacy has an impact on consumers' online shopping intentions and the future usage thereof as consumers have to trust that all personal information must be kept private and that the purchasing process will be completed without the fear of falling victim to some form of fraud (Nemec-Zlatolas *et al.*, 2019:2).

1.3.3.6 E-loyalty

According to Peña-García *et al.* (2018:339), loyalty is a term that exists within the context of traditional shopping; it is a key component for businesses in developing sustainability in the long term as well as gaining competitive advantage when consumers intend to stay loyal towards a business.

With the technology advanced era, the term loyalty was also adapted to e-loyalty, which mainly refers to consumers' positive impression and attitude towards an online business, while practising e-loyalty by being committed to repurchasing products and services online from a specific business (Negash *et al.*, 2021:3). Kosasi (2021:1424) similarly asserts that customers who are e-loyal are of great importance for online businesses, as consumers who feel satisfied with an online business have the enthusiasm to embrace continued purchasing behaviour.

Negash *et al.* (2021:3) furthermore state that consumers who have e-loyalty towards a business will not only revisit the online store, but will also make positive recommendations about the

business to other individuals, and e-loyal customers of the online business will be of great benefit for the business' profitability and economic sustainability in the long run.

1.3.4 Online business and e-loyalty

A business is defined by Hayes (2020) as the operations and engagement of various different activities such as the sales of goods and services, interaction between two or more businesses as well as the interaction between a business and its customers, and the profitability of the business in general. Ward (2020) further states that a business includes all economic activities of ongoing procedure and production of both goods and services to ensure that the overall aim of customer satisfaction is reached, while maintaining a good profitability for future success of the business.

Understanding the basic concept of a business, Pratt (2019) indicates that an online business implies the various different processes of a standard traditional business, but through the use of technology. This includes the electronic purchasing of different products and services provided by the business, providing consumers with online customer services and various online payment options, electronic product control systems, and electronic research information to gain a larger market share (Pratt, 2019). Pilinkiene *et al.* (2013:77) propound that businesses that want to take advantage of the current business environment, both internally and externally, and seek to enlarge their market share, must invest in online business.

Ahmed (2020) states that, in business, customers are of utmost importance and the business has to focus on the customers in such way that they return for future purchases of goods and services. Ripton (2021) asserts that the loyalty of a consumer is the consumer's willingness to continue purchasing products and services from a specific business, while Yin and Xu (2021:2) similarly indicate that the loyalty of a consumer is the behaviour, attitude and positive view towards the business.

Vijay *et al.* (2019:4) indicate that electronic loyalty (e-loyalty) is consumers' attitude towards online businesses as well as the repeated purchasing behaviour of those individuals. Zheng *et al.* (2017:709) similarly assert that e-loyalty not only is the repurchasing or the future purchasing of products and services by consumers, but also presents an online business' long-term success.

The sudden spread of the COVID-19 pandemic not only affected businesses, but it also led businesses to innovatively provide consumers with solutions to continue shopping, by developing online businesses or increasing online business capacity (Kosasi, 2021:1423). Al-Khayyal *et al.* (2020b:275) assert that, during the COVID-19 pandemic, a large number of consumers turned towards purchasing products and services through online businesses.

Azhar and Bashir (2018:37) emphasise that e-loyalty is an issue in the online business environment, because it is difficult to keep consumers because there are various online businesses offering similar products and services that can easily be compared to one another. Attaining a new online consumer is more expensive and time consuming than serving an e-loyal consumer (Arslan, 2020:12; Sathiyavany & Shivany, 2018:4816). Gaining an e-loyal relationship with online consumers is difficult and time consuming, because there is no physical interaction between the business and the consumer, and therefore online consumers have to be satisfied in such way that they are sustainable for the future of the online business (Ghali, 2021:4; Pramudito *et al.*, 2021:3555).

Therefore, it is clear that considering e-loyalty is an important focus for the future sustainability of an online business. This is done by paying adequate attention to the consumer's voice, consumer trends, and consumer behaviour in online shopping.

1.4 RESEARCH OBJECTIVES

The following section provides an overview of the research objectives of the study.

1.4.1 Primary objective

The primary research objective was to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour.

1.4.2 Theoretical and empirical objectives

In order to achieve the primary objective of the study, there were several theoretical and empirical objectives that needed to be attained.

1.4.2.1 Theoretical objectives

In this study, the theoretical objectives that were formulated to obtain the primary objectives include:

- Conduct a literature review on marketing and consumer behaviour with specific reference to online shopping behaviour, specifically within the South African context.
- Review the literature on the development and growth of online shopping globally and within the South African context.

- Review the literature on pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty as factors influencing consumers' online shopping behaviour during the COVID-19 pandemic.

1.4.2.2 Empirical objectives

The following empirical objectives were formulated in relation to the theoretical objectives of this study:

- Determine consumers' current online shopping behaviour with reference to purchasing online during the COVID-19 pandemic and the types of products purchased online.
- Determine consumers' online shopping behaviour during the COVID-19 pandemic with specific reference to the influence of pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty.
- Determine the relationship between pandemic fear, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty influencing consumers' online shopping behaviour during the COVID-19 pandemic.
- Determine the influence of perceived ease of use and usefulness, privacy and trust and pandemic fear on e-loyalty.

1.5 HYPOTHESES

For this research study, the following six hypotheses were formulated:

H₀1: There is no positive significant relationship between ease of use and usefulness on pandemic fear

H_a1: There is a positive significant relationship between ease of use and usefulness on pandemic fear.

H₀2: There is no positive significant relationship between ease of use and usefulness on privacy and trust.

H_a2: There is a positive significant relationship between perceived ease of use and usefulness on privacy and trust.

H₀3: There is no positive significant relationship between perceived ease of use and usefulness on e-loyalty.

H_a3: There is a positive significant relationship between perceived ease of use and usefulness on e-loyalty.

H₀4: There is no positive significant relationship between pandemic fear on privacy and trust.

H_a4: There is a positive significant relationship between pandemic fear on privacy and trust.

H₀5: There is no positive significant relationship between pandemic fear on e-loyalty.

H_a5: There is a positive significant relationship between pandemic fear on e-loyalty.

H₀6: There is no positive significant relationship between privacy and trust on e-loyalty.

H_a6: There is a positive significant relationship between privacy and trust on e-loyalty.

This section mentioned the six formulated hypotheses for this research study. The following section briefly describes the research methodology used within this research study.

1.6 RESEARCH METHODOLOGY

Three dominant research designs exist: (i) qualitative, (ii) quantitative, and (iii) mixed-method research. A qualitative research design is subjective in nature, and is typically conducted in a natural setting with the aim to gain an in-depth understanding and meaning of the individuals directly involved, in order to address a specific research problem (Aspers & Corte, 2019:142). With a qualitative research design, the researcher is typically the primary instrument in the process of data collection, which can take place through interviews, document analysis or observations. Quantitative research designs use an objective approach to address a research problem. With a quantitative research design, the use of numbers, statistics, structure and control plays a significant role in addressing the research problem, and data collection mainly transpires through inanimate instruments such as scales, tests, surveys or computers (Goertzen, 2017:12). In addition to qualitative and quantitative research designs, mixed-method research involves a blend of the qualitative and quantitative research designs. In order to address the primary objective of this study (to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour), a quantitative research design was followed. A better understanding of South African consumers' intentions to shop online during and after the COVID-19 pandemic was gained and the information can be used to develop business management strategies for online businesses.

1.6.1 Literature investigation

A sample study of the existing literature on the influence of the COVID-19 pandemic with specific reference to pandemic fear, online shopping intentions, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty influencing consumers' online shopping behaviour, was performed. Existing research published across various different platforms by multiple authors was used to collect the secondary data for the study. This was done by making use of the internet, accessing textbooks with information linked to the study, journal articles of comparison, relevant newspaper articles, and other applicable reports, dissertations, mini-dissertations and theses. The academic databases that were used in the collection of the secondary data included, but are not limited to NWU EDS Search, Google Scholar, and Emerald Insight. The database of the National Research Foundation (NRF), NEXUS, was also consulted to review completed and current registered research projects to ensure the originality of this research study.

1.6.2 Empirical investigation

In this section, the empirical investigation introduces the research design, target population, sampling frame, sampling method, sample size, measuring instrument, as well as data collection and analysis.

1.6.2.1 Research design

Ponelis (2015:539) indicates that the research design is done to tie the various data collected and analyses in a research study together, in order to form an overall understanding of the study. The research design consists of three subsections, namely descriptive research, exploratory research and causal research, in order to meet the objectives of the overall study (Burns *et al.*, 2017:72). Descriptive research uses the data collected in a study to review market traits, while exploratory research is used to collect background knowledge on the research problem (Atmowardoyo, 2018:198). Causal research measures the relationship between two or more variables in a research study (Burns *et al.*, 2017:93). In order to determine the most suitable research design, the objectives of the study are considered. The research design undertaken to achieve the purpose of this study was descriptive research, as this research study aimed to identify consumers' specific behavioural influences during the COVID-19 pandemic (McCombes, 2020b).

1.6.2.2 Target population

The target population of a research study is defined as a whole unified set of elements that have data, and are of interest to the specific study being performed (Martínez-Mesa *et al.*, 2016:326). The target population for this study consisted of individuals who engaged in online shopping during the COVID-19 pandemic. For the purpose of this study, the target population was defined as follows:

- Element: Individuals 18 year of age and older who made use of online shopping during the COVID-19 pandemic.
- Extent: Social networking sites: Facebook and Instagram.
- Time period: November 2021 to April 2022.

1.6.2.3 Sampling method

McCombes (2021) describes that it is difficult to collect data from each individual; therefore, a sample from the specific sampling frame is selected employing a specific sampling method. According to Etikan and Bala (2017:215), researchers can use two types of sampling methods, namely probability sampling and non-probability sampling. Sharma, 2017:749 defines *probability sampling* as the equal opportunity of each individual in the target population to be chosen. Furthermore, Sharma (2017:750) adds that four types of probability sampling exist: simple random sampling, systematic sampling, stratified sampling, and cluster sampling. In contrast to this, non-probability sampling is the chance of individuals being selected into a known sample, and is not done randomly (Trochim, 2021). Burns *et al.* (2017:253) indicate four non-probability sampling methods: convenience sampling, purposive sampling, snowball sampling, and quota sampling. Convenience sampling entails a cost-effective way to collect data, usually in areas where the population is in close range, such as busy areas, and the population is easily accessible (Rahi, 2017:3). Purposive sampling, also known as judgement sampling, entails that researchers purposely choose respondents to participate in the research study (Taherdoost, 2016b:23). Snowball sampling (also known as referral sampling) is when respondents are asked to partake in the study, and to provide other individuals similar to them to also participate in the research study (Etikan *et al.*, 2015:1). Quota sampling refers to when the researcher selects the sample of a fixed quota of the population and quotas thereof are set up (Anieting & Mosugu, 2017:34; Lamm & Lamm, 2019:54).

For the purpose of this research study, non-probability snowball sampling was employed as the sampling method. The researcher identified respondents who adhered to the target population criteria within their own personal network. For this research study, the questionnaire was

distributed on two social media sites – Facebook and Instagram – as these two sites are two of the most popular social media sites among South African consumers. The study and the link to the questionnaire were marketed on Facebook and Instagram through an advertisement. The researcher created the advertisement and invited consumers who are 18 years and older, and made use of online shopping during the COVID-19 pandemic, to complete the online survey. This was advertised on the researcher's personal Facebook and Instagram profiles. Through the posts made on Facebook and Instagram, respectively, the researcher explained what the questionnaire was about and what the value of the respondents' contribution holds for not only the research field, but also for online businesses. Respondents were also asked to share the advertisement on their own personal accounts to gather data from the target population.

1.6.2.4 Sample size

The sample size entails the number of respondents used within the research study. To select the sample size, the population and the sample frame have to be considered (Zamboni, 2018). If the aim of the research study is to solve a specific problem, a sample ranging from three hundred (300) to five hundred (500) units might be deemed acceptable and sufficient (Shukla, 2014:58).

Standardised scales, which have previously been validated by other research studies, were used for this research study. A sample size of three hundred (300) respondents was chosen; this sample size is in range with other similar studies that focus on the COVID-19 pandemic and consumers, such as Hashem (2020:63) (sample size of 500), Koch *et al.* (2020:6) (sample size of 450), and Veeragandham *et al.* (2020:76) (sample size of 230). The link for the survey was posted on social media and 280 usable questionnaires from individuals 18 years and older who made use of online shopping during the COVID-19 pandemic was gained (McCombes, 2020a).

1.6.2.5 Measurement instrument

For this study, the primary data was collected through an online structured self-administered survey. The purpose of the survey was to explore the influence of the COVID-19 pandemic on the online shopping behaviour of South African consumers.

The online survey consisted of a preamble, and two additional sections: Section A (Consumers' online shopping behaviour) and Section B (Determining the influence of COVID-19 on consumers' online shopping behaviour); each of the constructs is indicated below under the detailed Section A and Section B.

The purpose of the research study and the research problem that the researcher aimed to solve were explained in the preamble of the online survey. Furthermore, this part of the online survey

also informed the respondents about how their responses and participation in the research study add value to the field of research. Respondents were also informed that their participation is entirely voluntary, and that anonymity is ensured. The preamble concluded by asking the respondent to indicate whether they consent to the information being provided, and the use of their responses in the presentation of the results of the research study, before completing the online survey.

Section A: Consumers' online shopping behaviour

Section A obtained certain online shopping behaviour information from the respondents to determine whether the respondent did engage in online shopping during the COVID-19 pandemic, and if so, the types of products they purchased from online stores during the pandemic. The questions included in the consumer online shopping behaviour section of the survey (Section A) were combined and adapted from questions included in a research study by Tran (2021:4).

Section B: Exploring the influence of COVID-19 on consumers' online shopping behaviour

Section B explored the influence of the COVID-19 pandemic on respondents' online shopping intent with specific reference to pandemic fear, online shopping intentions, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty. The items used from the validated scales were adapted to accommodate the influence of the COVID-19 pandemic without losing the original intention.

The scale included measuring the influence of pandemic fear on South African consumers' online shopping behaviour, and was adapted from the scale developed and validated by Tran (2021:7) and Saleem *et al.* (2020:14). For online shopping intention, the items included were adapted from a scale validated through research conducted by Holmqvist and Lunardo (2015:119) to measure individuals' online shopping behaviour during the COVID-19 pandemic in South Africa. The perceived ease of use and perceived usefulness scales were adapted from the scales that were used in research conducted by Avcilar & Özsoy (2015:33). The scales included to measure privacy and trust were adapted from the scale developed and validated by Tran (2021:7). Lastly, the scale to measure the e-loyalty of consumers' online shopping behaviour was adapted from Ghali (2021:7).

For this study, the scale was adapted and changed to a four-point Likert scale, prompting respondents to indicate their level of agreement with the statements in this section, ranging from one (1) *strongly disagree* to four (4) *strongly agree*. The four-point Likert scale avoids a concrete median and differentiates between the consumers' agreement or disagreement with a statement

posted in the online survey. A Likert scale measures the attitude towards a specific item (Joshi *et al.*, 2015:397). Furthermore, McLeod (2019) states that a Likert scale measures an attitude by its strength and level of agreement towards a statement. Bhandari (2020) adds that Likert scales operationalise consumers' perceptions of specific items or topics.

A number of individuals who met the criteria and have extensive knowledge regarding consumer behaviour were asked to complete the online survey in order to test whether the sections are clear prior to final distribution. It was also used to debrief that the items are understandable and that the target population could complete the relevant survey in the timeframe provided. Furthermore, this also ensured the reliability of the scales included in the survey. The data from the study was reviewed and analysed before the survey was finalised and distributed to the target population for data collection. The data from the individuals who reviewed the online survey was not included in the final data of this research study.

1.6.2.6 Data collection

For this research study, non-probability snowball sampling was employed. Etikan *et al.* (2015:1) indicate that non-probability snowball sampling is a suitable data collection method because the participants with an extensive social network are highly beneficial to the research study. Furthermore, Etikan *et al.* (2015:1) indicate that the snowball sampling method includes the researcher being highly involved in the process.

The online survey was distributed on social networking platforms, more specifically Facebook and Instagram. The researcher made use of an advertisement with an active link to the online survey to inform respondents about the research study, and to request them to complete the survey. The respondents were asked to share the link on their own social media profiles. This was done without any direct contact with any of the respondents, or without identifying respondents.

1.6.2.7 Data analysis

Quantitative data analysis has the predominant aim of interpreting a large number of data, in order to draw certain conclusions (Goertzen, 2017:12; Tustin, 2005:102). The data analysis for this research study consisted of the collection, organising and interpretation of the data. This was done to determine any existing patterns and trends regarding the influence of the COVID-19 pandemic on the online shopping intentions of South African consumers (Valcheva, 2020). The Statistical Consultation Services of the North-West University's Potchefstroom Campus were consulted in the process of data analysis to ensure the quality, accuracy and reliability of the interpreted data. Descriptive analysis (frequencies, percentages, means and standard deviation), inferential statistics (factor analysis, Spearman's rank order correlation analysis) and

reliability of the scales included (Cronbach's alpha) were included in the statistical methods for data analysis. Table 1-1 below provides a summary of the statistical data analyses that were conducted to address the empirical objectives set out for this research study.

Table 1-1: The statistical procedure to address the empirical objectives of the research study

Empirical objective	Statistical procedure	Purpose of analysis
Determine consumers' current online shopping behaviour with reference to purchasing online during the COVID-19 pandemic and the types of products purchased online.	<ul style="list-style-type: none"> Descriptive statistics 	Descriptive statistics indicate the research study's basic features while concluding the sample as well as the measures in a summary (Mishra <i>et al.</i> , 2019:67).
Determine consumers' online shopping behaviour during the COVID-19 pandemic with specific reference to the influence of pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty.	<ul style="list-style-type: none"> Reliability and validity analysis Exploratory factor analysis 	<p>Reliability analysis is indicated by BMI (2021) as the calculation of data collected and the relationship measurement between items, if any; while validity analysis is defined as the intended measurements' realness and accuracy of the undertaking analysis or study being performed (Middleton, 2020).</p> <p>Exploratory factor analysis (EFA) determines the number of both factors and items that associate with a particular factor (Mooi <i>et al.</i>, 2017:266).</p>
Determine the relationship between pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty influencing consumers' online shopping behaviour during the COVID-19 pandemic.	<ul style="list-style-type: none"> Correlation analysis (Spearman's rank order correlation) Hypothesis testing 	<p>Franzese and Iuliano (2019) propound that the measurement of quantities, variables and the relationship strength thereof is done by performing a correlation analysis. Spearman's rank order correlation is used to measure the strength of the relationship between two variables of ordinal data (Laerd Statistics, 2018).</p> <p>With hypothesis testing, associations of differences indicated explicitly in the hypotheses developed are tested to determine whether the characteristics of a specific population, included in the hypotheses, are true (Majaski,</p>

Empirical objective	Statistical procedure	Purpose of analysis
		2020; Malhotra, 2010:493; McDaniel & Gates, 2013:472).
Determine the influence of perceived ease of use and usefulness, privacy and trust, and pandemic fear on e-loyalty.	<ul style="list-style-type: none"> Structural equation modelling (SEM) 	The SEM examines whether if there is any type of relationship between variables (Phakiti <i>et al.</i> , 2018:459).

1.7 CONTRIBUTION OF THE STUDY

The research study determined the influence of the COVID-19 pandemic on South African consumers' online shopping behaviour and contributed towards the limited research currently based on the COVID-19 pandemic and online shopping within the South African context.

The results of this research study contributed not only to the theory and literature in the field of research, but even more so to consumers' behaviour towards online shopping during the COVID-19 pandemic and their e-loyalty towards online businesses. The recommendations that were made by the researcher can assist businesses in developing their online stores in such a way that the consumer is aware of and truly experiences the benefits of online shopping. During the COVID-9 pandemic and the strict regulations implemented, businesses were impacted negatively, and for some, it is a tiring process of recovering from the financial impact thereof. Therefore, for the businesses that did not offer online shopping to their consumers before the COVID-19 pandemic, the results of this study assisted business owners to develop an online business model that would satisfy consumers' wants and needs, and add value to their lives by enabling them to acquire products and services offered through the online store. Businesses could also use the results of this study to more effectively ensure that consumers stay loyal over a longer period in time.

1.8 ETHICAL CONSIDERATIONS

The researcher aimed to promote the study's validity; it is, therefore, imperative to pay attention to ethical considerations (Enago Academy, 2019). Because the researcher had an ethical responsibility towards the respondents who participated in the research study and the field of research, this research study was conducted in line with all required ethical considerations. The researcher also ensured that the required actions to ensure respondents' anonymity and to protect them were taken. Both the researcher and the online survey informed respondents that their participation in the research study was entirely voluntary and that they could withdraw from participating whenever they felt uncomfortable with any of the questions asked in the online

survey, through the informed consent section. Furthermore, respondents' identities were kept confidential. The Protection of Personal Information (POPI) Act 4 of 2013 advocates the processing of personal information in a lawful manner, and therefore the researcher ensured that no direct contact with any respondent took place, or that any information gathered through the online survey could have compromised the privacy of any respondent or their personal information. The researcher submitted an application for ethics clearance to the North-West University's Faculty of Economic and Management Sciences (F-EMS) research ethics committee (EMS-REC), which was successfully obtained. The research project only commenced once ethics approval and the requisite ethics clearance number were obtained from the EMS-REC.

1.9 OUTLINE OF THE CHAPTERS

Chapter 1: Introduction and background to the study

In Chapter 1, a comprehensive introduction, background information, a literature overview as well as the research objectives and research methodology were provided. Furthermore, the study's contribution and ethical considerations were stated.

Chapter 2: Online shopping behaviour and the COVID-19 pandemic

In Chapter 2, a literature review on the broad concept of marketing and consumer behaviour, as well as on shopping with specific reference to the development and growth of online shopping globally and within the South African context, was discussed. The chapter reviewed the literature on the influence of the COVID-19 pandemic on consumers' online shopping behaviour, more specifically within the South African context. The chapter also provided a comprehensive discussion and overview of the literature on the pandemic fear, online shopping intentions, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty as factors influencing consumers' online shopping behaviour during the COVID-19 pandemic.

Chapter 3: Research design and methodology

This chapter consisted of the study's research design and methodology. The study's research design, the selected target population, sampling method and sample size were discussed. Furthermore, the data collection method and analysis and all aspects of the online survey were explained in full. The chapter also included a broad discussion on the statistical data analysis methods used to present the results of the research study.

Chapter 4: Results of the study

In Chapter 4, the main results of the study were presented. This was based on the data collected through the specific methodological approaches discussed in the research proposal. The data was mainly presented in figures and tables to showcase the results adequately. The chapter also encapsulated the similarities concerning previous research studies, and any novel results from the research were highlighted. A summary of the key results of the research concluded Chapter 4.

Chapter 5: Conclusion and recommendations

In Chapter 5, the research study was concluded. The results included in Chapter 4 of the study were used to formulate conclusions regarding the influence of the COVID-19 pandemic on South African consumers' online shopping behaviour. The evidence of the confirmation of the problem statement formulated guided the researcher's recommendations regarding the results and future research. The limitations of the research study were also discussed in Chapter 5.

CHAPTER 2

ONLINE SHOPPING BEHAVIOUR AND THE COVID-19 PANDEMIC

Chapter 2 will address the theoretical objectives as set out in section 1.4.2.1 in Chapter 1. The theoretical objectives include:

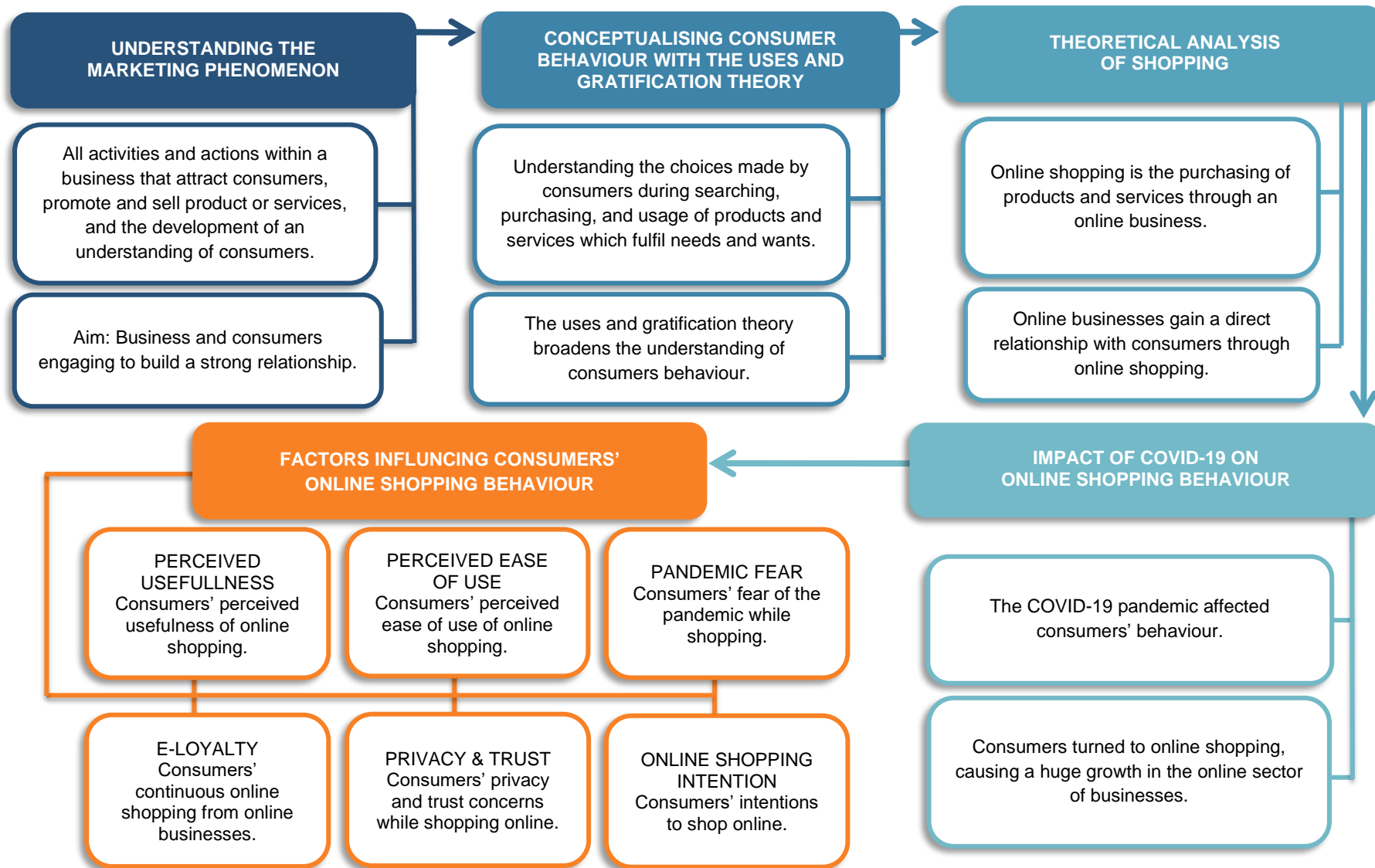
- To conduct a literature review on marketing and consumer behaviour with specific reference to online shopping behaviour, specifically within the South African context.
- To review the literature on the development and growth of online shopping globally and within the South African context.
- To review the literature on pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty as factors influencing consumers' online shopping behaviour during the COVID-19 pandemic.

2.1 INTRODUCTION

The influence of the COVID-19 pandemic on consumers' online shopping behaviour is a somewhat new and complex subject in the field of marketing research. This chapter, Chapter 2, aims to achieve the theoretical objectives set out in Chapter 1 (§1.4.2.1).

The COVID-19 pandemic has had a significant impact on daily life as consumers formerly knew it, since strict laws and limits on people's freedom of movement were put into place (Adams-Prassl *et al.*, 2020:2). Many people adopted online shopping as a result of the pandemic, choosing to buy a variety of goods and services online, to satisfy their needs (Tran, 2021:1). The COVID-19 pandemic changed online buying, since people now make more online purchases than they did before the pandemic, and this significant increase in online shopping has resulted in 73% higher traffic volumes in online shopping sites (Clement, 2020a) UNCTAD, 2020). It is evident that the COVID-19 pandemic altered consumers' behaviour regarding online shopping. However, before one can address the empirical objective of this study (*to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour*), it is important to gain insight into the literature on consumer behaviour and online shopping from a marketing perspective. Figure 2-1 illustrates the literature discussed in this chapter.

Figure 2-1: Literature discussed in Chapter 2



Source: (Avcilar & Özsoy, 2015:33; Czinkota *et al.*, 2021:9; Ghali, 2021a:10; Gopinath, 2021:542; Gu *et al.*, 2021:2263; Holmqvist & Lunardo, 2015:33; Irshad & Ahmad, 2019:92; Saleem *et al.*, 2020:14; Schiffman & Wisenblit, 2020:32; Showrav *et al.*, 2021:1; Silpa *et al.*, 2016:96; Tran, 2021:7)

2.2 UNDERSTANDING THE MARKETING PHENOMENON

To gain a better understanding of consumers' online shopping behaviour during the COVID-19 pandemic, it is important to understand the concept of marketing. Baines *et al.* (2017:5) indicate that the term marketing must first be defined in order to understand what marketing has to offer to a business and to the consumer.

2.2.1 Marketing

Taherdoost and Jalaliyoon (2014:336) express that within a business, marketing is essential. Marketing aims to not only maintain relationships with consumers, but also to create consumer value (Armstrong *et al.*, 2015:xii). The American Marketing Association (AMA, 2017) defines marketing as the creation, communication, delivering and the transaction of products or services, which consumers see as valuable, through various marketing activities, institutions and processes. Kotler *et al.* (2021:25) define marketing as a process of the business and consumers engaging to build strong relationships while purposefully creating and exchanging value with each party. Furthermore, Baker (2014:4) indicates that the business' way of thinking about how to interact with consumers can be described as marketing. Czinkota *et al.* (2021:9) assert that marketing involves the long-term valuable trade between the business and the main target market, which includes consumers and stakeholders, in order for the business to make a profit and play a part in socioeconomic issues.

The relationship between the consumers' activity of purchasing and receiving what was purchased is seen as value, and this value can be influenced by the marketing of a business (Blythe, 2014:5). Iacobucci (2021:2) states that marketing is acknowledged as (i) developing and gaining a market for profitability, (ii) it helps to build the business' reputation and brand equity, (iii) it enables the business to engage with consumers while learning from the relationship that exists between the business and its consumers, and (iv) it creates competitive advantage.

According to Hanssens and Pauwels (2016:173), marketing has three unique characteristics: attitude, behaviour and finance. It is important to recognise that the marketing industry is dynamic and constantly changing (Bala & Verma, 2018:323). Within marketing, it is essential to develop new marketing techniques to track consumers' changing demands, as their needs and wants change for products and services (Baker, 2014:4). Marketing holds many benefits for both the consumer and the business. These benefits include, but are not limited to:

- Marketing positively promotes and delivers wants and needs while providing a wide variety of products and services,

- It brings forwards new offerings, and
- Marketing seeks to satisfy consumers for long-term relationships (Baines *et al.*, 2017:36).

Marketing was transformed by the internet and other digital technologies, and the development of digital technologies has had a remarkable impact on marketing for online stores (Alekseeva *et al.*, 2019:13; Limba *et al.*, 2018:619). Due to advancing technologies, marketing adapted towards a digital era that is fast changing, advancing and trending, and allows for a direct connection with consumers (Ivanov, 2019:1; Vynogradova *et al.*, 2020:89).

2.2.2 Marketing in the digital era

Marketing in the digital era mainly makes use of the internet as a platform (Chaffey & Ellis-Chadwick, 2019:335). The growth of the internet affected marketing by becoming an important element (Dilham *et al.*, 2018:682). However, Chaffey and Ellis-Chadwick (2019:5) stress that marketing in the digital era is not new and is far over 25 years old. According to Ferrell *et al.* (2021:4), changes in the digitalisation of marketing include (i) online ordering and purchasing of products and services, (ii) digitalisation of products and services, (iii) allowing consumers to review products and services online, (iv) online streaming, and (v) online sharing services.

Businesses in the digital era should not solely rely on traditional marketing, but rather place a focus on marketing tactics and methods through the use of the internet (Pollák & Markovič, 2021:3). This is because consumers have altered the way they choose to interact both online and offline (Opreana & Vinerean, 2015:29). Mandal and Joshi (2017:5428) highlight that the continued rapid growth of the internet is leading businesses to realise the significance of taking their businesses online. According to Chaffey and Ellis-Chadwick (2019:14), the digital era of marketing with the use of the internet enables a business to find out what the consumers' needs and wants are, while adding additional channels (such as online shopping) for consumers to access numerous information and make purchases. Furthermore, the internet enables a business to reach consumer satisfaction, which is a key element of success within the digital era of marketing (Chaffey & Ellis-Chadwick, 2019:14). The internet allows businesses to save costs and adapt to consumers' needs, while consumers are no longer bound to the traditionalism of a business and its marketing, due to the accessibility of online options (Chitra & Shobana, 2017:111; Pascalau & Urziceanu, 2021:4).

Sturiené (2020:5) emphasises that numerous researchers define marketing in the digital era differently (both the term and the concepts thereof), and specifically draws attention to the fact that there is no universally agreed-upon term for marketing in the digital era. According to Bhosale *et al.* (2020:79), "internet marketing", "web marketing", "online marketing", and "digital marketing"

are all frequently used terms that are used as substitutes of each other. In addition, Yasmin *et al.* (2015:70) also note that “internet marketing”, “electronic marketing” (e-marketing), and “digital marketing” are three terms that are all similar in nature. Furthermore, Taherdoost and Jalaliyoon (2014:337-338) also propound that “digital marketing”, “online marketing”, and “internet marketing” are interchangeable and synonymous within research studies. Bostanshirin (2014:783) similarly indicates that the term “online marketing” can be substituted with “internet marketing”, whereas, Sturienė (2020:6) indicates that “digital marketing” and “e-marketing” are viewed as similar terms.

It is important to clearly understand the concept of each term (digital marketing, e-marketing, web marketing, online marketing, internet market) to be able to identify similar characteristics. This will enable researchers to formulate one universal term relating to “internet marketing”, “electronic marketing” (e-marketing), and “digital marketing”, based on similarities. The following table (Table 2-1) lists the variation of terms and the concepts that exist within the context of marketing in the digital era.

Table 2-1: Variations of the terms and the concepts that exist within the context of marketing in the digital era

Term	Concept	Author
Digital marketing	Digital marketing is “an adaptive, technology-enabled process by which firms collaborate with customers and partners to jointly create, communicate, deliver, and sustain value for all stakeholders.”	Kannan (2017:23)
	“Digital marketing is defined as the application of digital media, data and technology integrated with traditional communications to achieve marketing objectives.”	Chaffey and Ellis-Chadwick (2019:9)
	“Digital marketing is the marketing of products or services using digital technologies, mainly on the Internet, but also including mobile phones, display advertising, and any other digital medium.”	Desai (2019:196)
	“Digital marketing is a subgroup of marketing which uses digital technology to place and trade goods.”	Bhosale <i>et al.</i> (2020:79)
E-marketing	“E-marketing is the new, modern, and suitable tool for attracting customers and compare effects of modern marketing and with traditional marketing.”	Salehi <i>et al.</i> (2012:383)
	“E-Marketing or electronic marketing refers to the application of marketing principles and techniques via electronic media and more specifically the Internet.”	Taherdoost and Jalaliyoon (2014:337)
	“e-Marketing refers to the application of marketing principles and techniques via electronic media and more specifically the Internet.”	Iddris and Ibrahim (2015:161)
	“E-marketing is the use of information technology for the marketing activity, and the processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large. More simply defined, e-marketing is the result of information technology applied to traditional marketing.”	Frost and Strauss (2016:7)

Term	Concept	Author
Web marketing	“Web marketing is based on the creation of value from relationships among network members.”	Choi and Gao (2014:4104)
Internet marketing	“Internet marketing is the marketing of products or services over the Internet.”	Kalia <i>et al.</i> (2015:128)
	“Internet marketing is the advertising and marketing efforts that use the internet and email to drive direct sales via electronic commerce.”	Isa and Wong (2015:386)
	“Internet Marketing is a form of business from companies to market their products and services and build relationships with customers through internet media.”	Dilham <i>et al.</i> (2018:682)
	“Internet marketing is digital, meaning that it is electronic information that is transmitted on a computer or similar device, though naturally it can tie in with traditional offline advertising and sales too.”	Jones <i>et al.</i> (2021:4)
Online marketing	“Online marketing consists of measures and activities to promote products and services and build relationships with customers over the Internet.”	Bostanshirin (2014:784)
	“Online Marketing is the Art and Science of selling products and services over digital networks, such as the internet and cellular phone networks.”	Chitra and Shobana (2017:106)
	“Online marketing refers to marketing via the internet using company websites, online advertising and promotions, email marketing, online video, and blogs.”	Kotler <i>et al.</i> (2021:499)

Table 2-1 indicates the variations of terms and their concepts within the context of marketing in the digital era, which are used interchangeably.

From the overview of the concepts used within the context of marketing in the digital era provided in Table 2-1. it is evident that some terminology might sound similar. Despite this, Sturienė (2020:5) indicates that a clear distinction does exist between terms and that not all terminology can be used for substitutes. Grubor and Jakša (2018:266) state that digital marketing and internet marketing are not synonyms, but rather that “digital marketing” is used as an umbrella term. Minculete and Olar (2018:64) similarly expresses that digital marketing is a main concept within marketing and that internet marketing is a subsystem thereof. Sturienė (2020:6) stresses that digital marketing and e-marketing can be the same, because both of these terms can be used within the digital context of online and offline, with or without the use of the internet; whereas, online marketing and internet marketing can be considered the same because these terms have limitations and require the use of the internet.

Therefore, based on the aforementioned, within this research study, internet marketing can be defined as the marketing activities of businesses that use digital measures and activities to sell products and services, and build relationships with consumers.

Pollák and Markovič (2021:3) assert that internet marketing is the integration of both traditional marketing and digital technologies. According to Todor (2016:52), within internet marketing and traditional marketing, the basic concept of marketing is somewhat similar, but a distinction can be made based upon the usage of digital technology. However, Durmaz and Efendioglu (2016:36) indicate that traditional marketing and internet marketing are different from each other, as the aim of internet marketing is to fulfil needs and reach consumers as soon as possible. Internet marketing allows for cost efficiency and savings above that of traditional marketing (Malesev & Cherry, 2021:76). Pascalau and Urziceanu (2021:2) propound that traditional marketing requires third parties to be active, it is more expensive and can take a longer time to implement, whereas internet marketing can be solely run internally, saves costs, and has a fast online display.

According to Todor (2016:56), internet marketing is not only growing, but individuals spend more time online. Internet marketing within a business allows for a marketplace to exist where products and services can be purchased (Chitra & Shobana, 2017:106; Mollel & Rwabishugi, 2021:66). Additionally, it also allows for a relationship to be built between the consumer and the business through the use of the internet (Dilham *et al.*, 2018:682). The functions of internet marketing do not only involve online marketing dynamics, but also the possibility to place specific focus on consumers, to gain new consumers, and to develop an interactive relationship with current and potential new consumers (Limba *et al.*, 2018:620). The internet plays an important role in the presence of an online business and an understanding of consumers' behaviour of using the internet, which is highly beneficial for businesses (Chitra & Shobana, 2017:111).

This section, section 2.2, explained the marketing phenomenon with a focus on the digital era. More specifically, the focus has been placed on internet marketing. The following section, section 2.3, will provide an overview of consumer behaviour, and the uses and gratification theory that plays a significant role in consumer behaviour.

2.3 CONCEPTUALISING CONSUMER BEHAVIOUR WITHIN THE USES AND GRATIFICATION THEORY

Consumers are individuals who purchase goods and services for their own personal usage or their household needs and usages (Jisana, 2014:34). Similarly, a consumer can also be described as an individual who determined a need or want, and then purchases and makes use of the product or service they identified that will satisfy their need or want (Solomon *et al.*, 2013:2).

Purchasing decisions are made every day by consumers (Kotler *et al.*, 2021:152). Based on the definition of a consumer, consumer behaviour is explained as the understanding of choices made by consumers during searching, purchasing and using of products and services that satisfy needs and wants (Schiffman & Wisenblit, 2020:32). Consumer behaviour not only just involves purchasing, using and consuming of products and services, but also entails consumers' ideas and experiences that fulfil their preferences (Cant, 2020:107). The understanding of consumer behaviour aims to gain knowledge on how individuals make decisions and why individuals purchase the products and services they do (Horner & Swarbrooke, 2016:7). Consumer behavioural studies assist marketers to understand how unusual occurrences influence changes in consumer behaviour (Loxton *et al.*, 2020:2).

Within consumer behavioural research, various different factors and sub-factors emerge. Svajdova (2021:34) indicates that consumer behaviour is influenced by social factors, economic factors, political and legal factors, technological factors, and natural factors. However, personal influences (such as information, motivations, beliefs, characteristics, personality and lifestyle) and social influences (such as culture play) play an active role as influential factors of consumers' behaviour (Fahy & Jobber, 2015:145). Furthermore, Jisana (2014:36) adds that consumer behaviour can be influenced by psychological factors (such as motivations, learning, perceptions, beliefs and attitudes). Whereas, Victor *et al.* (2018:11) indicate that consumers behaviour is influenced by shopping experience, privacy concerns, price awareness and personal security. In addition to this, Tham *et al.* (2019:258) assert that product, convenience and return policy, and perceived risk are factors that influence consumers' behaviour.

From the aforementioned, it is evident that consumer behaviour is shaped and influenced by various unique factors. This is also confirmed by Fahy and Jobber (2015:157). Kotler *et al.* (2021:153) assert that behavioural influences, motivations and beliefs lie deep inside consumers. Solomon *et al.* (2013:32) highlight that although consumers are predictable and make routine decisions, their behaviour changes over time.

Within businesses and the future existence thereof, consumers are an essential focal point for business success and sustainability (Cant, 2020:106). The availability of data in the digital era creates an opportunity to better understand consumers and their specific shopping behaviour (Kingsnorth, 2016:24). It is therefore imperative for businesses to invest in understanding the factors that influence consumers' decisions, as awareness of these elements will enable marketers to determine marketing strategies based on consumers' decisions and behaviour (Cant, 2020:106; Szmigin & Piacentini, 2018:3).

2.3.1 Uses and gratification (U&G) theory and consumer behaviour

The uses and gratification (U&G) theory is a theoretical framework that tends to unfold the reasons and influences behind the usage of a specific medium (Menon, 2022a:3). This theory first came to light in the pre-digital era (1940s), when the reason behind why individuals choose a specific media form wanted to be investigated (Viney, 2019). However, Menon (2022a:3) highlights that although the U&G theory was derived before the digital era, it is a highly robust theory and can adapt to the changes within advancing technologies, meaning that both old and new media techniques can be used with this theory. The U&G theory aims to understand why consumers make use of certain media, and to explain how the use of that media fulfils their individual needs (Huang & Zhou, 2018:104; Kaur *et al.*, 2020:2; Ray *et al.*, 2019:223). Furthermore, the U&G theory also provides clarity on individuals' continued usage of a specific medium (Chen *et al.*, 2016:179; Ibáñez-Sánchez *et al.*, 2022:563; Wang *et al.*, 2021:1316). Mejía-Trejo (2021:2) asserts that the U&G theory can assist with understanding individuals' clear intentions when using a specific medium. This theory supports the individual's usage of media for their own benefits, which are subjected to their own necessities (Masouras & Papademetriou, 2018:33). Essentially the U&G theory helps to determine the role of consumers behaviour and its motives within media (Tran, 2021:1-2).

The U&G theory is based upon certain assumptions: (i) the use of media is goal-oriented and consumers are active on the media, (ii) consumers hold the creativity in connecting the need gratification and the specific media choice, (iii) the media compete against other types of sources for the need satisfaction of consumers, (iv) consumers have a specific perception of their media usage and their intentions in the use thereof, and (v) only consumers can assess media content by their value judgements (Katz *et al.*, 1974:510-511; Mejía-Trejo, 2021:2; Wang *et al.*, 2021:1316). Furthermore, important principles of the U&G theory are the activity, selectivity and motivational selection of media among consumers (Menon, 2022a:3).

It is important to note that the U&G theory can be applied to nearly all types of media (Ma *et al.*, 2019:621). Kaur *et al.* (2020:2) assert that research studies using the U&G theory after the digital era mostly relate to some form of internet media. The application of U&G theories in the past ten years (2012 to 2022) has been reviewed and the different types of media as well as their research focuses are presented in Table 2-2.

Table 2-2: Media type used within the U&G theory

Media-specific type	Research focus	Author
Social media (Instagram)	Investigating the satisfaction of photo sharing on social media.	Menon (2022b:2)

Media-specific type	Research focus	Author
Online educational applications	Exploring the intentions towards the usage of different educational apps during the COVID-19 pandemic.	Menon (2022a:2)
Augmented reality	Analysing the playability of augmented reality on social media.	Ibáñez-Sánchez <i>et al.</i> (2022:563)
Online shopping	The purchasing intentions of online consumer behaviour during the COVID-19 pandemic.	Mejía-Trejo (2021:2)
Online shopping	Purchasing decisions based upon social media advertising.	Rajan <i>et al.</i> (2021:11)
Online shopping	Examines the effectiveness of e-commerce platforms during the COVID-19 pandemic.	Tran (2021:1-2)
Social media (WhatsApp)	Examining the motives towards information-sharing behaviour within the context of the COVID-19 pandemic.	Islam <i>et al.</i> (2020:2)
Social media (Twitter)	Examining the Twitter usage impact on the public during the COVID-19 pandemic.	Haman (2020:1)
Online streaming services	Understanding online streaming motives during the COVID-19 pandemic.	Camilleri and Falzon (2020:217)
Online shopping	Determining the online shopping intentions of virtual goods.	Kaur <i>et al.</i> (2020:2)
Smart speaker advertising	Investigating smart speaker motivations.	Lee and Cho (2020:1153)
Online food delivery applications	Determining the motives of using food delivery applications.	Ray <i>et al.</i> (2019:222)
Online shopping	Determining online shopping intentions within the context of social media.	Irshad and Ahmad (2019:92)
Mobile shopping	Motives behind the usages of web personalisation within mobile shopping.	Huang and Zhou (2018:104)
Social media (Facebook, Instagram, Twitter and Snapchat)	Examining how the usages of social media sites influence social capital.	Phua <i>et al.</i> (2017:115)
Online group buying websites	Understanding continues usage behaviour of online group-buying websites.	Chen <i>et al.</i> (2016:182)
Social media (Instagram and Snapchat)	Investigating image-based platforms on reducing loneliness among users.	Pittman and Reich (2016:156)
Mobile applications	Examining the limitations of online to offline mobile applications.	Chen <i>et al.</i> (2015:5)
Social media (LinkedIn)	Exploring the motives to use social media.	Florenthal (2015:19)
Online shopping	Understanding usage intentions to shop online.	Lim and Ting (2012:48)

From Table 2-2 it is evident that a variety of technology-adoption contexts specifically making use of the internet have been used within the U&G theory (Tran, 2021:2). Furthermore, it is also clear that the U&G theory is a popular theory used in order to understand consumers' behaviour specifically in online shopping (Irshad & Ahmad, 2019:92). Similarly, the U&G theory widely investigates the usage of the internet, particularly within the context of online shopping (Huang & Zhou, 2018:104).

Tran (2021:2) highlights that the U&G theory greatly assists in capturing consumers' acceptance as well as effects of using online shopping. Irshad and Ahmad (2019:92) indicate that understanding consumers' online shopping intentions can be of great benefit as it can lead to estimating consumer behaviour as well as consumers' shopping motives. Ultimately, the U&G theory can assist marketers to understand the factors that influence consumers' online shopping behaviour, and bring to light the importance of consumers online repurchase and revisit intentions towards online stores (Chen *et al.*, 2016:194; Lim & Ting, 2012:49).

With the fast-growing and rapidly-changing technologies, newer media within U&G theories can lead to changes in consumers' behaviour (Islam *et al.*, 2020:2; Menon, 2022a:3). Understanding consumers' behaviour towards online shopping through the internet has great significance in terms of online businesses (Lim & Ting, 2012:49). Therefore, it is becoming more important to business owners, marketing divisions and website developers of online businesses to place a focus on fulfilling consumers' needs through understanding their online shopping behaviour (Lee & Cho, 2020:1151; Lim & Ting, 2012:49).

Therefore, based upon the information above, it can be said that within this research study, the U&G theory provides a theoretical grounding and further understanding of consumers' online shopping behaviour during the COVID-19 pandemic.

2.4 THEORETICAL ANALYSIS OF 'SHOPPING'

Shopping is important as consumers need necessities (Aryani *et al.*, 2021:81). Consumers who are satisfied with the business and its quality of goods and services on a constant basis, return to that business, upon which consumers then tend to be loyal toward the business (Aryani *et al.*, 2021:81). This section explains the concept of shopping with specific reference to online shopping, globally and within the South African context.

2.4.1 Understanding the term 'shopping'

Shopping is the process of looking around, searching for information, deciding on the best possible option, and the action of purchasing products and services by exchanging money for

said products or services (Rose & Dhandayudham, 2014:83). When consumers undertake the process of purchasing goods or services, a fundamental issue arises: *Which mode of shopping would mostly satisfy their wants and needs?* (Sarkar & Das, 2017:424).

Two types of general shopping modes exist: (i) traditional shopping, and (i) online shopping (Reddy & Jayalaxmi, 2014:38; Sarkar & Das, 2017:424). According to Kushwah and Singh (2019:2), traditional shopping and online shopping have many similarities. However, Shanthi and Desti (2015:14) indicate that the most important difference between traditional shopping and online shopping is the level of interaction between the business and its consumers. Wholesome competition exists between traditional shopping and online shopping as the digital era allows consumers to choose which shopping mode would be of interest to fulfil their wants and needs (Sarkar & Das, 2017:424). Traditional shopping requires the consumer's physical presence at a store (Aryani *et al.*, 2021:81). Therefore, traditional shopping can be described as the instance where a consumer visits a physical store at which a purchase can be made (Cheema & Akram, 2021:237). Traditional shopping therefore enables consumers to choose products or services while physically seeing the items' features and appeal (Reddy & Jayalaxmi, 2014:39). In contrast to this, online shopping is the process of purchasing products and services by making use of the internet as a platform (Silpa *et al.*, 2016:96). The internet allows consumers not only to shop online, but also to seek information on certain products and services (Lissitsa & Kol, 2016:305). Considering the fact that online shopping acts as a one-stop shop for consumers to purchase products and services, it is becoming increasingly popular (Abd Aziz & Abd Wahid, 2018:1176; Srivastava & Thaichon, 2022:1).

2.4.2 Online shopping

The rapid growth of the internet facilitates the increase in the number of online stores (Kushwah & Singh, 2019:2). Business activities are impacted by the internet in such way that businesses within every sector are incapable of resisting the adoption of the digital era (Al-Shaibani, 2021:909). According to Cheema and Akram (2021:237), the internet has become an important platform for doing business, and it is essential for businesses to capitalise on this opportunity. Due to the growth of the internet and more businesses realising the importance of utilising the internet for business purposes, the online shopping industry has become a growing and thriving industry (Silpa *et al.*, 2016:96). Online shopping is described as the process where consumers are purchasing products and services from an online store (Gopinath, 2021:542). The term 'online shopping' further also encapsulates consumers' intentions to participate in online shopping (Baubonienė & Gulevičiūtė, 2015:75-76).

Online shopping boasts a number of benefits for consumers, compared to traditional shopping at physical stores (Abd Aziz & Abd Wahid, 2018:1177; Cho & Sagynov, 2015:52; Daroch *et al.*, 2021:40; Davis, 2019; Goga *et al.*, 2019:2; Rahman *et al.*, 2018b:20; Tarhini *et al.*, 2018:68). The benefits of online shopping for consumers are indicated in section 2.4.2.1.

2.4.2.1 Advantages of online shopping

As mentioned above, online shopping boasts numerous benefits for consumers. The advantages of online shopping include:

- Online shopping provides consumers with numerous options and comparisons that would be of interest to them in satisfying their wants and needs (Daroch *et al.*, 2021:40).
- Online shopping makes it easy for consumers to purchase products and services while comparing various different options and prices in the comfort of their own setting by using a computer or mobile devices to do so (Abd Aziz & Abd Wahid, 2018:1177).
- Consumers note the importance of online shopping as it is time saving and convenient (Tarhini *et al.*, 2018:68).
- For busy and working consumers, online shopping increases due to the convenience, enjoyment, speed and time saving thereof (Daroch *et al.*, 2021:40).
- Online shopping allows all age groups to purchase products and services (Cho & Sagynov, 2015:52).
- The time flexibility of online shopping allows online shopping to happen at any time during the day (Davis, 2019).
- Online shopping offers a variety of possibilities, as it allows businesses to expand not only the activities and online scope, but also to gain a larger market share of consumers (Goga *et al.*, 2019:2).

Although it is evident that online shopping is beneficial to consumers for a number of reasons, it is also important to consider that certain challenges are also implied by online shopping (Hanus, 2016:12; Harris *et al.*, 2017:422-423; Poojary, 2019:1608; Rahman *et al.*, 2018b:12). The challenges of online shopping are explained in section 2.4.2.2 below.

2.4.2.2 Disadvantages of online shopping

Disadvantages of online shopping involve:

- Online shopping creates uncertainty among consumers as they are unsure about the security that online business stores provide and the risk involved in shopping online (Poojary, 2019:1608).
- Consumers have certain privacy concerns, costs bound to deliveries and concerns of not being able to make personal evaluations before purchasing a product online (Harris *et al.*, 2017:422).
- Consumers who shop online do not have the ability to touch and analyse physical items by their feel, size and value before a purchase (Hanus, 2016:12; Rahman *et al.*, 2018b:12).
- Online shopping reduces instant satisfaction, as products and services cannot be used immediately after purchase (Rahman *et al.*, 2018b:12).
- Online shopping reduces consumers' interactivity among physical interaction and communication (Hanus, 2016:12).
- Online shopping not only implies a lack of social interactions, but also increases stress among consumers when waiting for items to arrive (Harris *et al.*, 2017:422-423).

From the above, it is clear that online shopping is controversial as both advantages and disadvantages exist when shopping online. However, understanding both the advantages and disadvantages can be highly beneficial for online businesses to understand the factors that influence and motivate consumers to shop online (Harris *et al.*, 2017:434). With regard to the advantages of providing an online shopping function for businesses, online shopping enables businesses to reduce marketing costs, which leads to a somewhat reduction in prices of products and services between businesses, to remain at a competitive advantage position (Al-Shaibani, 2021:909). Furthermore, online shopping also allows businesses to focus on consumer customisation, experiences, and reducing prices (Goga *et al.*, 2019:2). A major driver of online shopping for businesses is providing continuous investment and building high levels of privacy as well as security for consumers (Al-Debei *et al.*, 2015:723-724).

It is evident that consumers shifted towards online shopping as technology advanced. This is also due to the easy access to online stores that is provided to all global marketplaces with the assistance of the internet (Aryani *et al.*, 2021:82). Çiçek and Muzaffaer (2021:17) indicate that global online shopping takes place daily. Furthermore, online shopping is a gateway for

globalisation, because products and services across the world can be purchased by any individuals from anywhere (Akhlaq & Ahmed, 2014:153).

2.4.3 Global online shopping

Akhlaq and Ahmed (2014:153) indicate that online shopping is done by consumers all around the world. At the beginning of 2022, there were over 5 billion global, active internet users, which accounts for more than 60% of the world's population (Johnson, 2022a). As of February 2022, the top five global countries with the most internet users were, China (with more than 1 billion users), India (650 million users), the United States of America (with more than 300 million users), Indonesia (with more than 200 million users), and Brazil (160 million internet users) (Johnson, 2022c). In addition to this, Nigeria was the first African country on the global scale of internet users, with more than 105 million individuals considered active internet users (Johnson, 2022c). Furthermore, in Africa specifically, Morocco, Egypt, Seychelles, South Africa and Tunisia had a large share of internet users in the beginning of 2022 (Johnson, 2022d).

Global online shopping is becoming a necessity and a very profitable channel for businesses (Keenan, 2022). From 2019 to 2020, the number of online businesses increased with over 30%, and in 2020, 2 billion consumers purchased at least one item through online shopping (Barber, 2022). Online shopping sales are predicted to grow from over 4 trillion US dollars in 2021 to 5 trillion US dollar in 2022 (Chevalier, 2022). Globally, online businesses are rapidly growing daily and there are an estimated 12 million online businesses (Gennaro, 2022). In China, 70% of consumers shop online on a weekly basis, while in the United Kingdom, only 36% of consumers engage in online shopping activities on a weekly basis (Metapack, 2019).

As online shopping increases globally, emerging and developing countries are still behind those well-developed, first-world countries (Al-Mulali *et al.*, 2015:9717). Despite this, China leads the sales of e-commerce platforms worldwide, with over 50% of the world sales (Keenan, 2022). According to the revenue of these platforms, Amazon (USA), JD.com (China), Alibaba (China), Suning.com (China), and Meituan (China) are the world's largest online shopping platforms (Mileva, 2022b). Furthermore, globally, the Home Depot (USA), Walmart (USA), Prosus (Netherlands), and Reliance (India) are also some of the largest online shopping platforms (Oberlo, 2022). According to Goldman (2021), within the African market, there is still enormous opportunity for growth, if Africa wants to compete on a global scale. The largest online shopping platforms in Africa are Jumia (Nigeria), Takealot.com (South Africa), and Konga (Nigeria) (Saleh, 2022).

Globally, online shopping improves as more consumers have internet access, and businesses adapt more platforms for consumers to be able to shop online (Kushwah & Singh, 2019:2; Sarkar

& Das, 2017:424). Pithadia (2016:1-2) indicates that one of the most frequently used internet activities is online shopping. According to Keenan (2022), localising languages, order now and pay at a later stage, online wholesaling, and interactive shopping experiences are trends in global online shopping.

Furthermore, as the popularity of online shopping continues to grow, global online shopping trends form, which businesses should place a focus on (Mileva, 2022a). The global trends for the year 2022/2023 are:

- Place the focus on existing consumers to create continuous return and loyalty among them (Anjani, 2022).
- Bettering consumers' online shopping experiences (Stübane, 2022).
- Offering a wider variety of payment options that consumers can choose from (Lee, 2022).
- Personalisation in marketing of online shopping as consumers seek uniqueness (Lee, 2022).
- Accessing online shopping platforms through the use of mobile devices on mobile-friendly platforms (Barber, 2022).
- Consistent consumer support services provided across all types of platforms (Mileva, 2022a).
- Embrace social media platforms as online shopping platforms and marketplaces (Andre, 2022).

2.4.4 South African online shopping

Just as the case is globally, online shopping has also made a strong appearance within the South African context over the past few years (Malapane, 2019:1). At the beginning of 2022, South Africa had over 40 million active internet users, and an excess of 28 million active social media users (Johnson, 2022b). Kemp (2022) indicates that 68% of South Africa's population made use of the internet. Furthermore, South Africa had a significant increase in active mobile device users with more than 100 million users owning a mobile device.

Online business and their opportunity for growth in South Africa cannot afford to fail (Fin24, 2022). South Africa's online sales grew by 66% and extended over 50% (with more than 30 billion rand) of what was forecasted in 2020 (Daniel, 2021). The International Trade Administration (ITA, 2021) indicates that South African consumers use mostly online shopping platforms based in South Africa, but also purchase from global online shopping platforms. South Africa's top online businesses are Takealot.com, Superbalist, Woolworths, Amazon (South Africa), and the Mr. Price

group (eCommerceDB, 2021). South Africans mostly prefer to purchase fashion items such as clothing and footwear, education and events, electronics and media, and food from the online businesses (Davis, 2019; eCommerceDB, 2021). Furthermore, South African consumers tend to engage in online shopping activities more frequently during the holiday season, Black Friday and Cyber Mondays (Davis, 2019). Online shopping in South Africa continues to grow, and businesses should keep in mind that (i) consumers still remain the number one priority in online shopping, (ii) an online presence is highly important, (iii) for future reference data can be collected from consumers when they do online shopping, and (iv) providing a wide variety of safe payment options can be beneficial (Fin24, 2022).

Consumers tend to have different online shopping behaviours and satisfactions when it comes to purchasing products and services from an online business during different periods of time (Baubonienė & Gulevičiūtė, 2015:76). This section (§2.4) discussed shopping with specific reference to online shopping within both the global and South African contexts. With a better understanding of what online shopping is, the following section, section 2.5, explains consumers' online shopping behaviour during the COVID-19 pandemic both globally and within South Africa.

2.5 IMPACT OF COVID-19 ON ONLINE SHOPPING BEHAVIOUR

As an influence of the COVID-19 pandemic, consumers' online shopping behaviour drastically increased (OECD, 2020; UNCTAD, 2020). This section explains the concept of the COVID-19 pandemic on consumers' behaviour with specific reference to their online shopping behaviour globally and within South Africa.

2.5.1 The effect of the COVID-19 pandemic on consumer behaviour

According to the World Health Organization (WHO, 2021), COVID-19 is a new type of coronavirus disease that rapidly spreads, affecting individuals by causing numerous types of symptoms when individuals are infected, ranging from mild recovery to severe hospitalisation once contracting the virus. McCarthy (2020) propounds that in the beginning of 2020, COVID-19 was announced by the World Health Organisation as a pandemic. A pandemic is described as a disease that spreads rapidly among individuals all over the world (Patil & Patil, 2020:3074). The COVID-19 pandemic is a health crisis that affected individuals around the world, and significantly impacted the economies of countries worldwide (Neger & Uddin, 2020:91). Furthermore, with the onset of the COVID-19 pandemic, individuals' normal way of living was also unexpectedly changed (Al-Hattami, 2021:2).

Lockdown regulations, restrictions, isolation and quarantine were but some of the measures put in place to curb the spread of the COVID-19 pandemic. Many countries across the world uniquely

carried out their own rules and regulations when it came to reducing the spread of the COVID-19 pandemic (Mason *et al.*, 2020:300; Naeem, 2020:377; Patil & Patil, 2020:3074-3075; Sayyida *et al.*, 2021:80; Sirkeci, 2020:1). As a world reality, restrictions such as curfews were implemented with the aim of cornering the COVID-19 pandemic to keep individuals safe (Financial Times, 2022). Svajdova (2021:35) indicates that during the peak of the COVID-19 pandemic, governing bodies of countries went as far as closing some public services, non-essential businesses, restaurants and schools. Dumanska *et al.* (2021:386) stress that those restrictions were placed upon the operation of businesses such as shopping malls, leisure and entertainment, as these activities could lead to the rapid spread of the virus among individuals. Furthermore, the COVID-19 narrowed not only the trend of shopping, but also caused businesses to temporary lock-up future plans and gatherings (Sharma & Jhamb, 2020:1).

The COVID-19 pandemic had a significant impact on the loss of lives, employment, the necessities of life, the economy and society. It is an undeniable fact that the COVID-19 pandemic to this day has a remaining effect on individuals, physically, emotionally, and in the way they conduct their everyday lives (Das *et al.*, 2022:629; Fihartini *et al.*, 2021:17).

According to Showrav *et al.* (2021:1), global marketing, as well as consumer behaviour, are influenced by the COVID-19 pandemic, as individuals' behaviour changed due to the COVID-19 pandemic as a result of the measures put in place to prevent the spread of the virus (Alhaimer, 2022:26). This was specifically with regard to aspects such as consumers' area of work, education, communication, travel, entertainment, shopping, and general wellbeing (Kohli *et al.*, 2020:2). As a result, consumers started to explore newer technologies to fulfil different functions in their everyday lives (Dumanska *et al.*, 2021:386). The restrictions and lockdown regulations of the COVID-19 pandemic led consumers to move towards delivery of essential products or services, cashless payment options and online shopping (Eger *et al.*, 2021:1). Furthermore, consumers had to adapt to making use of digital technologies as they were pushed to continue working through the online environment, attending virtual conferences and meetings to keep businesses going (Kim, 2020:212).

As explained earlier in the chapter, consumer behaviour is defined as how the consumer meets and satisfies their needs through the selecting process, purchasing and making use of the products or services (Kumari, 2022:1). Consumers' behaviour changed from traditional ways of doing activities towards performing activities through the use of online business platforms as a result of the COVID-19 pandemic (Moon *et al.*, 2021:2). The technology advanced digital era allowed a chance for businesses to survive during the COVID-19 pandemic (Al-Hattami, 2021:2). The COVID-19 pandemic affected consumers' shopping motives to an extent where their shopping behaviour was completely transformed (Gu *et al.*, 2021:2264). This caused a

tremendous growth in consumers' online shopping (Dannenberg *et al.*, 2020:543; Gu *et al.*, 2021:2263; Khan *et al.*, 2020:114).

It is clear that the COVID-19 pandemic had a significant impact on the online shopping behaviour of consumers. In the following section, an overview is provided of the global stance of online shopping during the pandemic.

2.5.2 Global online shopping behaviour during the COVID-19 pandemic

Globally, the COVID-19 pandemic suspended the production of products and service, as well as supply chains, and restricted the movement of said products and services across national and international borders (Verma & Naveen, 2021:27-28). The COVID-19 pandemic enhanced the structural changes to the digitalisation of businesses across the world (Ali, 2020:270). The global trend of businesses deciding to develop online businesses during the COVID-19 pandemic suddenly emerged (Gu *et al.*, 2021:2263; Shopify, 2022). The practice of online shopping rapidly increased as consumers were forced to stay at home during the pandemic (Ali, 2020:270). As a result, businesses that offered online shopping opportunities dynamically developed due to the COVID-19 pandemic, as consumers felt much safer shopping online rather than visiting physical stores (Adamczyk, 2021:2).

According to Kim (2020:214), many consumers across all age groups purchased a product or service online for the first time during the COVID-19 pandemic. Many different types of product categories have grown significantly due to the COVID-19 pandemic. Furthermore, it is also evident that consumers' intent to continue with online shopping to acquire products and services that satisfy their wants and needs, also continues to increase (Charm *et al.*, 2020).

When analysing the types of products and services bought online during the COVID-19 pandemic, household items and over-the-counter medicine were the most popular products in countries such as Korea, India, Italy, the United Kingdom and in the United States of America (Arora *et al.*, 2020:10). Nguyen *et al.* (2020:438) indicate that, in Vietnam, specifically, the online sales of books increased significantly. In the United States of America, there was an overall significant increase in online retailing of groceries, with more than 6 billion US dollars spent on purchasing groceries online between 2020 and 2021 (Grashuis *et al.*, 2020:1). Furthermore, grocery deliveries during the pandemic also increased in countries such as Brazil, India, Italy, Korea, Spain and the United Kingdom (Arora *et al.*, 2020:11).

2.5.3 South African online shopping behaviour during the COVID-19 pandemic

As a result of the outbreak of the COVID-19 pandemic, the South African government implemented numerous different restrictions and regulations. This included very strict hygiene regulations, social distancing and lockdowns (Abe & Mugobo, 2021:85). During this time, many physical stores in South Africa had to close due to the restrictions; however, online businesses could still receive orders on essential products and services (Agaku *et al.*, 2021:2). Despite the restrictions put in place by the South African government, South Africa's potential for the development and growth of online shopping enabled numerous businesses to explore online shopping as an additional avenue to continue with business during the pandemic (Heyns & Kilbourn, 2022:2).

Considering the online shopping trends of South African consumers during the COVID-19 pandemic, their interest in researching and discovering new products online increased, while online purchases of electronics, home items, and fashion apparel also increased with more than 5% (Smidt & Maigurira, 2020). Furthermore, South African consumers adopted remote learning for both adults and children, deliveries of groceries and restaurants, online gaming, online streaming, and online fitness as new online activities since the COVID-19 pandemic (McKinsey & Company, 2020). However, as consumers' intent and the growth of online shopping increased during the COVID-19 pandemic, there is still a lack of surety as to whether consumers would remain loyal to their online shopping behaviour and intentions after the pandemic (Smidt & Maigurira, 2020:2). Heyns and Kilbourn (2022:2) indicate that it is of utmost importance for businesses to understand consumers' behaviours in order to meet both existing and potential consumers' needs during the growth of online shopping. Although it is clear that there was an increase in online shopping activities among South African consumers during the pandemic, business owners and marketing managers might still be uncertain about the specific factors that influence consumers' online shopping behaviour (Heyns & Kilbourn, 2022:2).

Several research studies have been conducted previously that determine consumers' online shopping behaviour (Bhatti *et al.*, 2021:109; Dharmesti *et al.*, 2019:157; Rahman *et al.*, 2018a:1; Rose & Dhandayudham, 2014:83), but very few of these studies included the factors that influence consumers' online shopping behaviour with specific reference to the COVID-19 pandemic. In addition to this, there is also a lack of studies focusing on the relationship between the factors that influence consumers' online shopping behaviour and their loyalty towards the online store.

2.6 FACTORS INFLUENCING CONSUMERS' ONLINE SHOPPING BEHAVIOUR

Numerous factors influence consumers' online shopping behaviour. Xiaoyang (2021:1701) indicates that factors such as the price, quality and attractiveness of products and services, online reviews, safety and security, and trust are factors that influence online shopping behaviour. Similarly, Changchit *et al.* (2019:10) indicate that perceived uncertainty and attitude towards online shopping are factors influencing online shopping behaviour. Kumar *et al.* (2017:223) remark that factors such as perceived benefits, perceived risk and consumer innovativeness influence online shopping behaviour. Furthermore, Nunkoo *et al.* (2013:3) indicate that perceived ease of use, perceived usefulness and intentions to use online shopping sites have a significant influence on consumers' online shopping behaviour.

This research study places a specific focus on factors such as pandemic fear, online shopping intentions, perceived ease of use and perceived usefulness (from the technology acceptance model), privacy and trust, and e-loyalty in determining consumers' online shopping behaviour during the COVID-19 pandemic. In the following subsections, these six factors are explained.

2.6.1 Pandemic fear

As previously explained, a pandemic can be defined as a worldwide outbreak of a virus that is a health threat for all humans, as it is contagious and spreads easily and rapidly among the world population (Grennan, 2019:910). The world has had different pandemics through the decades, and the current pandemic crisis that occurred in the beginning of 2020 is called the COVID-19 pandemic (Koch *et al.*, 2020:1). The COVID-19 pandemic impacted the natural order of life as we know it across the world due to the virus being highly contagious (Huang & Kao, 2021:964). The COVID-19 pandemic caused disruption throughout the world through the closure of borders, bans on entering and exiting a country, and limiting human movements in different counties (Zheng *et al.*, 2021:1). Furthermore, the pandemic also had an enormous impact on the economies, as well as financial markets, worldwide (Koch *et al.*, 2020:1).

Fear is an important human emotion that can be categorised with other human emotions such as joy, acceptance, anger, sadness and expectance (Jordan *et al.*, 2018:147). The human emotion of fear is an emotion that is adoptive in order to manage the concern of a potential threat (He & Harris, 2020:178). Fear can influence consumers' online shopping behaviour when the consumer has an emotion towards a possible situation then fear develops and influences the consumer to rather shop online for products and services (Jordan *et al.*, 2018:147).

With the COVID-19 pandemic outbreak in the beginning of 2020, consumers' fear emotion increased significantly (Mertens *et al.*, 2020:1). Consumers' shopping behaviour changed as they

felt afraid of the COVID-19 pandemic, and as a result of this, they shopped more online than in traditional stores. This was because they felt safer when doing online shopping (Shin, 2021:234). Pandemic fear within the context of online shopping can therefore be defined as the consumers' fear, which influences their purchasing behaviour of products and services from a business' online store (Tran, 2021:2).

Therefore, in this research study, pandemic fear can be defined as consumers' fear of the COVID-19 pandemic that led them to rather shop online in an attempt to stay safe from the virus.

2.6.2 Online shopping intentions

Consumers' intentions can be described as the behaviour of consumers to engage in performing a specific shopping action (Singh & Singh, 2014:7). To forecast the consumers' behaviour, the determination of consumers' intentions is considered an important attribute (Ariffin *et al.*, 2018:311). Shopping intentions can be defined as the degree of the behavioural intentions of consumers' clear beliefs in formulating a plan to perform a future purchase (Ofori & Appiah-Nimo, 2019:6). Therefore, a positive intention to shop online will lead to a positive engagement with a business (Jordan *et al.*, 2018:148). Consumers' shopping intentions are an essential factor for the online sector (Rezaei & Amin, 2013:93).

Consumers' online shopping intentions are a popular topic in the marketing research field, especially in literature of e-marketing (Jordan *et al.*, 2018:148). Online shopping intentions can be defined as the consumer's intention and willingness that are guided by their emotion of behaviour, to make an online purchase at a specific moment in time, or in the future (Jordan *et al.*, 2018:148). Consumers' online shopping intention can therefore be explained as their willingness to participate in purchasing products or services through an online business (Ariffin *et al.*, 2018:311).

When online shopping is seen as beneficial, the consumers' intent to shop online will increase (Kibandi & Reuben, 2019:120). The fact that online shopping is less time consuming than traditional shopping has an influence on the increase in consumers' intentions to shop online (Rafique *et al.*, 2014:93). Furthermore, consumers' willingness to shop online is more favourable when the online business provides beneficial functions such as a catalogue of the products and services they provide, a well-developed payment system, a search function, and when the online business ensures that consumers can trust them (Moslehpour *et al.*, 2018:3).

Rafique *et al.* (2014:93) indicate that online shopping intentions are influenced by the variables of perceived ease of use, perceived usefulness and trust. Neger and Uddin (2020:93) propound that the intentions of consumers to shop online is influenced by validity, the appearance as well

as layout, and the security of the online business. Usman and Kumar (2021:409) similarly noted that consumers' intentions are influenced by perceived privacy, security and trust.

The following section will elaborate on perceived ease of use and perceived usefulness (from the TAM model) as factors influencing consumers' online shopping behaviour.

2.6.3 Technology acceptance model (TAM)

Consumers' behaviour regarding any form of new technology can be unfolded by the technology acceptance model (TAM) (Marangunić & Granić, 2015:81). Over the years, the TAM has become a favourable model to use within research studies, as it meets all the criteria of the theoretical aspects, it is relevant to project individuals' acceptance of new technology, and the validity of the model is supported by data (Rauniar *et al.*, 2014:8). Consumers' acceptance of technology has been explained by TAM through numerous contexts such as mobile commerce, web commerce, e-learning, online services, healthcare and software components (Huang *et al.*, 2019:958; Shukla & Sharma, 2018:186). It is important to know that TAM has two independent variables: firstly, perceived ease of use, and secondly, perceived usefulness (Marangunić & Granić, 2015:81).

2.6.3.1 Perceived ease of use

Perceived ease of use can be defined as the belief of an individual that using a technology or new system would be done without requiring any effort from those individuals, and when technology is seen as easy to use, individuals' sense of effectiveness should be more significant (Galib *et al.*, 2018:76). Perceived ease of use can also be described as the degree to which consumers perceive technology, accessing the internet, as well as websites as easy to use (Moslehpour *et al.*, 2018:4). Perceived ease of use can be found in numerous different research studies involving technology with specific reference to online shopping behaviour (Cho & Sagynov, 2015:26; Ha, 2020:2030-2031; Nunkoo *et al.*, 2013:3; Rafique *et al.*, 2014:95). Perceived ease of use has been included in research studies based on consumer behaviour to determine whether consumers' point of view towards using online shopping through the internet is influenced by the effectiveness and ease when making use of technology (Ariffin *et al.*, 2018:332). Similarly, Dasan and Fenn (2015:41) note that when online shopping is highly perceived as easy to use, it results in an end purchase and usage of the product or service.

Online shopping would be perceived as easy to use when consumers do not need to make an effort, nor spend much of their time using the technology (Raza *et al.*, 2017:49). Similarly, Ofori and Appiah-Nimo (2019:5) added that consumers perceive online shopping as easy to use when there is enough information provided on the product or services, and when it is adaptable for consumers to interact with. Furthermore, Asiedu and Dube (2020:94) remark that perceived ease

of use of consumers' behaviour towards online shopping is positively elevated by the tools available on the online business and the technology interfaces of the online business.

Perceived ease of use has a direct and indirect effect on consumers' online shopping behaviour (Cho & Sagynov, 2015). When consumers find online stores easy to use, their willingness to discover the characteristics and attributes of the online store, while intending to make use of online shopping continuously, will increase (Cheema *et al.*, 2013:133; Hamid *et al.*, 2016:646). Similarly, if online stores are easy to use or easily understood, any misunderstandings that can occur will be minimised and as a result the consumer's trust towards the online store will increase (Dachyar & Banjarnahor, 2017:949).

Based on the above, for the purpose of this research study, perceived ease of use is defined as the consumer's perception of how effortless it is to make use of online shopping during a specific time.

2.6.3.2 Perceived usefulness

Perceived usefulness is the degree to which the consumer believes that using a specific technology would create immeasurable worth, as well as the extent to which it is considered to be highly beneficial (Amin *et al.*, 2014:263). A consumer's acceptance, attitude and behaviour have a strong influence on perceived usefulness (Shukla & Sharma, 2018:188).

Within the context of online shopping behaviour, perceived usefulness is the degree to which a consumer believes that the internet would enhance their online shopping performance, which will automatically improve their online shopping experience (Cho & Sagynov, 2015:24). Perceived usefulness potentially influences the consumer's intentions to shop online (Nunkoo *et al.*, 2013:3). The more useful a consumer finds an online business, the higher the consumer's desire to shop online will be (Tahar *et al.* (2020:540). Similarly, a consumer's behaviour towards online shopping changes when the consumer finds the online business useful, and ultimately the perceived usefulness then positively supports the consumer's decision to shop online (Moslehpour *et al.*, 2018:3). Each consumer has a different belief of what the usefulness of online shopping means to them as an individual (Amin *et al.*, 2014:264). Cho and Sagynov (2015:24) indicate that online shopping would be perceived as useful for consumers who are busy during normal shopping hours, as online shopping saves time, it is convenient, and it is easily accessible from anywhere as long as there is access to the internet. Similarly, Rafique *et al.* (2014:95) added that perceived usefulness consists of three attributes: firstly, internal motives (such as online discount deals as well as cost reduction on products and services online); secondly, external motives (such as less dependence on going to a physical store, large variety of online products and information on products provided online); and thirdly, by the effectiveness of the online purchasing process from

start to finish. Furthermore, Ventre and Kolbe (2020:289) indicate that online product or service reviews as well as electronic word-of-mouth (eWOM) also influence consumers' perceived usefulness.

Perceived usefulness and perceived ease of use go hand in hand as they both describe the consumer's behaviour or feelings towards making use of online shopping (Tang *et al.*, 2021:4).

For the purpose of this research study, perceived usefulness is defined as a consumer's belief that online shopping would enhance their shopping experience while adding value during a specific time.

2.6.4 Privacy and trust

Privacy entails the consumers' belief that all personal information will be kept private and that the information will not be mishandled by other individuals or businesses (Wen *et al.*, 2020:99). Furthermore, with regard to privacy, the consumers want to know what information is collected, how this information is used and whether this information is distributed to other parties when they engage in online shopping activities (Martin, 2018:103).

Privacy is also known as security and is considered an important aspect in online shopping (Al-dweeri *et al.*, 2017). Consumers are somewhat insecure in their attempts to adopt online shopping, due to their privacy concerns relating to online shopping (Rahman *et al.*, 2018b:115). This is a result of the fact that consumers must communicate certain personal information when online transactions are completed in an online store, and as such, the privacy of consumers then becomes an important factor (Wen *et al.*, 2020:99). Privacy within an online shopping context refers to the extent to which a consumer's information is safe and protected by the online business (Rezaei & Amin, 2013:98).

In relation to this, trust refers to consumers' eagerness to accept the exposure or risk of another individual, group or business (Martin, 2018:104). Trust can be defined as the behaviour of a consumer when they attempt to engage with a business, and the higher a consumer's trust is, the more their intentions to interact with an online business will increase (Pappas, 2018:4). Trust plays an essential part in the consumer's behaviour as it directly affects their online shopping behaviour and online shopping intentions (Hsu *et al.*, 2014:333).

In online shopping, consumers' trust towards an online business is a crucial aspect, as a shortfall of trust can be the main barrier to increasing online shopping behaviour (Rezaei & Amin, 2013:98). In terms of online shopping, trust is indicated as the consumer's set of beliefs in an online

business' ability and integrity to ensure a certain level of security to the consumer and the protection of their personal information when shopping online (Al-dweeri *et al.*, 2017:94-95).

Both privacy and trust are considered important factors to consider in online businesses (Pappas, 2018:4). In online shopping, high levels of trust relate to the consumers' privacy concerns (Martin, 2018:111). A consumer who has trust in an online business will believe that all personal information is kept secure and private when doing online shopping (Aboobucker & Bao, 2018:113). The privacy of consumers has an impact on their trust perception of online businesses (Pappas, 2018:15). Consumers' trust in online businesses has an effect on their privacy concerns, meaning that both privacy and trust will have an influence on the consumers' behaviour and intentions (Martin, 2018:104). Furthermore, it is evident that both privacy and trust have an influence on consumers' intentions to shop online, and ultimately their online shopping behaviour (Rahman *et al.*, 2018b:115).

2.6.5 E-loyalty

Loyalty is considered to be the behaviour of a consumer to repeat the action of purchasing products or services, as well as positively promote the business to other individuals (Cheng *et al.*, 2020:4). True loyalty is the positive attitude that results in continued purchasing, and the emotional behaviour of commitment to a business with the desired marketing strategy (Al-dweeri *et al.*, 2017:95). Loyalty and e-loyalty (electronic loyalty), in terms of a business, can be said to be parallel concepts (Al-dweeri *et al.*, 2017:95).

E-loyalty is considered to be the consumer's intentions to continuously visit an online business, and purchase products and services from an online business, despite the influence of other businesses' marketing strategies (López-Miguens & Vázquez, 2017:399). Consumers who are exhibiting e-loyal characteristics and behaviour assist an online business to gain new consumers through good recommendations and positive word-of-mouth (Ting *et al.*, 2016:2). Another important focus for an online business is a well-developed platform, as this will attract and maintain consumers, which would lead them towards being loyal towards the online business (Jeon & Jeong, 2017:439). It is important to note that new consumers are costly and less profitable to retain, while existing consumers are highly profitable and cost-effective to retain for future and repeat purchases (Hill & Alexander, 2017:51).

For an online business to be successful, it depends on its capabilities to create a market, but also to sustain the market by attempting to create an e-loyal consumer for the future (Karunaratna & Kumara, 2018:51). Furthermore, Ayuni (2019:170) propounds that an online business that is making continued attempts to engage with consumers is directly leading those consumers towards e-loyalty. Despite this, for a business to shape a consumer to be loyal is a difficult task

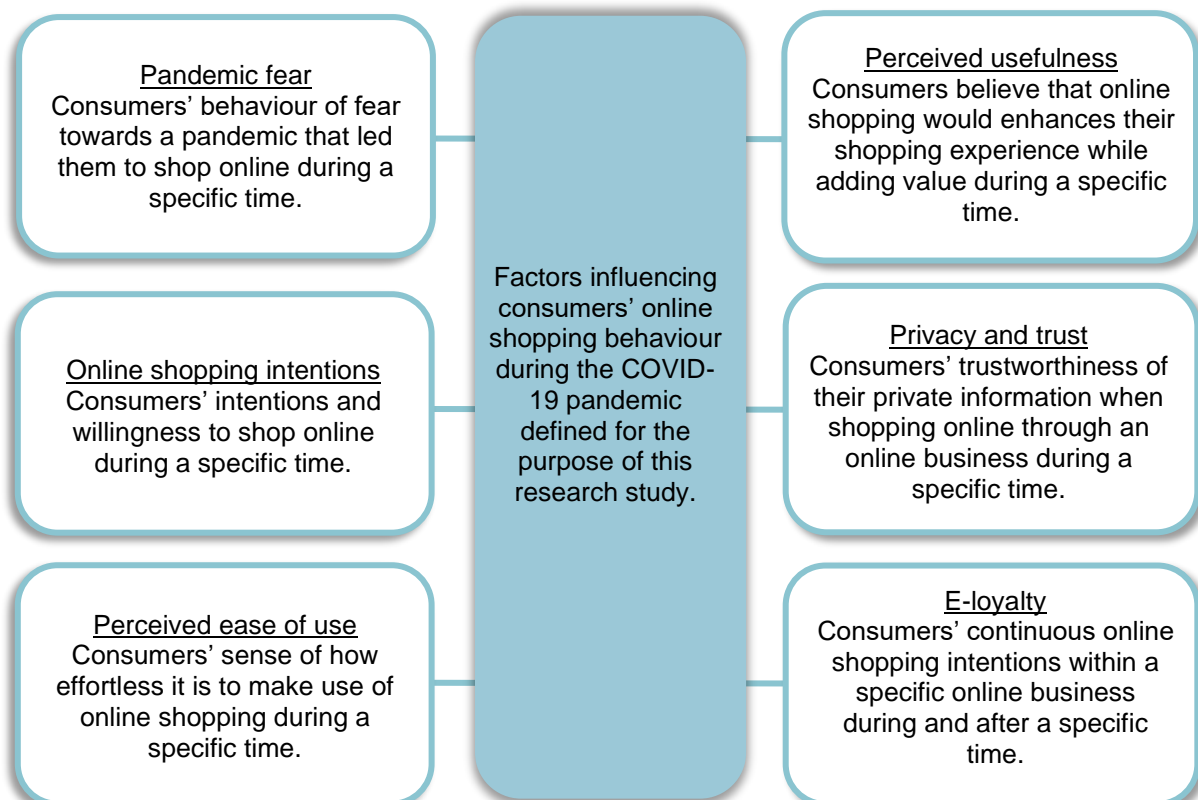
(Karunaratna & Kumara, 2018:51). It is therefore important for online businesses to determine how to build consumer loyalty (Kaya *et al.*, 2019:374).

Section 2.6 elaborated on the six factors influencing consumers' online shopping behaviour during the COVID-19 pandemic. The following section, section 2.7 concludes Chapter 2.

2.7 CONCLUSION

The literature review in Chapter 2 of this research study served as a basis to examine the factors that influence consumers' online shopping behaviour during the COVID-19 pandemic. Derived from the literature study in Chapter 2, Figure 2-2 summarises the outline of the factors (pandemic fear, online shopping intentions, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty) that influence consumers' online shopping behaviour during the COVID-19 pandemic. It is important to understand what each factor, that influence consumers' online shopping behaviour, indicates.

Figure 2-2: Summarising the factors that influence consumers' online shopping behaviour during the COVID-19 pandemic from a literature perspective



With the increase in online business activity during the COVID-19 pandemic, it is crucial for online businesses that want to be successful over the long term to essentially understand the various factors that have an impact on the consumers' online shopping behaviour (Al-Khayyal *et al.*,

2020a:275). This chapter provided insight into the factors influencing online shopping behaviour from a literature review perspective. From the literature, it is evident that the online businesses within the current online shopping industry provide consumers with endless interchangeable product and service options to choose from (Vijay *et al.*, 2019:2). It is significantly important for an online business to value the continued return of an online consumer (Saharana *et al.*, 2017:15). Loyalty in the aspect of consumers' behaviour is not only a competitive advantage, but also serves as the potential of differentiation for an online business (Cossío-Silva *et al.*, 2016:1621). Within the digital era of marketing, online businesses need to note that consumer behaviour changes over time and this requires the business to consider developing internet marketing strategies (Tiago & Veríssimo, 2014:703). Creating internet marketing strategies for an online business is important because not only does consumers' behaviour change, but the digital marketing era's technology advances rapidly within the growth of the industry (Grubor & Jakša, 2018:265). Online businesses should address the opportunities that exist by analysing consumers' online behaviour by effectively making use of internet marketing strategies (Grubor & Jakša, 2018:266). A specific focus on enhancing the consumer behaviour of e-loyalty towards an online business is of high interest.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

In this chapter, the methodology for the following empirical objectives (as set out in Chapter 1) will be addressed:

- Determine consumers' current online shopping behaviour with reference to purchasing online during the COVID-19 pandemic and the types of products purchased online.
- Determine consumers' online shopping behaviour during the COVID-19 pandemic with specific reference to the influence of pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty.
- Determine the relationship between pandemic fear, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty influencing consumers' online shopping behaviour during the COVID-19 pandemic.
- Determine the influence of perceived ease of use and usefulness, privacy and trust, and pandemic fear on e-loyalty.

3.1 INTRODUCTION

Research can be defined as the search for knowledge that is scientific and systematically applicable to a specific topic (Kabir, 2016:1). Research is the search for knowledge, facts (mostly new) or a deliberate investigation within an area or subject (Nayak & Singh, 2021:1). Research includes the defining or the redefining of problems that exist, the formulation of hypotheses, the collection of data, and providing solutions based on what was found (Mishra & Alok, 2017:1). Hallebone and Priest (2017:7) highlight that well-developed research is based on three pillars, namely the exclusive research topic, the research paradigm, and the research design.

The topic of interest, the question or the problem that exists, including the research yet to be explored by the researcher, is the research topic (Kaufman & Kaufman, 2005:29; Mooi *et al.*, 2017:12). The way of conducting how research is understood and described can be done through a set of universally agreed-upon worldviews or beliefs, referred to as the research paradigm (Rahi, 2017:1). Research entails being guided by a set of beliefs (Killam, 2013:5). The research topic is framed by the research paradigm and how it is thought of in terms of conducting research (Kamal, 2019:1389). Identifying the research problem that exists within the research study is not easy, but

is a crucial step of the research process and of high importance (Mooi *et al.*, 2017:12). The research design allows for the research topic to be investigated through the collection of data and by providing possible solutions to the problem that occurs (Akhtar, 2016:68; Gatrell *et al.*, 2020:42; Mooi *et al.*, 2017:13).

It is important to understand marketing research in order to perceive it in relation to marketing. Both marketing and marketing research are similarly described within the context of active, rapidly changing business environments (Bala & Verma, 2018:323; Reavey *et al.*, 2021:333). Marketing research is described as the constant gathering of information on business activities, its competitors and customers, to enable the business to have a clear perception of its market and customers (Czinkota *et al.*, 2021:182; Nyamanza, 2021:577). Furthermore, Czinkota *et al.* (2021:182) indicate that the core of marketing research is to gain insight into customers' wants and needs, and it is highly beneficial for examining the performance of a business. Hasan (2018:129) adds that customers continuously change their buying intention and behaviour. Therefore, marketing research is of significant importance, as it gathers information to analyse, formulate and report results on consumers and markets, to support the business' marketing strategies and initiatives (Malhotra *et al.*, 2017:7).

The purpose of this study was to determine whether the COVID-19 pandemic influenced consumers' online shopping behaviour, but also to embrace and adopt the online shopping aspect even further within this research study. In Chapter 2 of this study, an overview was provided on not only the research topic, but also on marketing, more specifically in the digital era, and consumers' behaviour within the aspect of online shopping behaviour and online purchasing intentions. Furthermore, Chapter 2 defined the development and growth of online shopping globally and within South Africa, and reviewed the literature on the factors pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty, as influences on consumers' online shopping behaviour during the COVID-19 pandemic. Chapter 2 lay the foundation for the empirical testing which entails the methods used for data collection, capturing and reporting, through specific methods, for a research study (Patten, 2016:3), to follow within Chapter 3.

The purpose of this chapter (Chapter 3) is to provide an outline of the research methodology. This will be done by explaining the research paradigm, design, approaches and measurements used for the collection as well as interpretation of data, and to address the research problem and empirical objectives of this study. This chapter begins with a discussion on the research paradigm (§3.2), the research design and the research approach (§3.3) relevant to this study. Thereafter, the sampling strategy (§3.4) is examined by providing an overview of the target population (§3.4.1), the relevant sampling frame (§3.4.2), the sampling method (§3.4.3), and the sample size

(§3.4.4). The data collection instrument that was used in this study is discussed in section 3.5. Furthermore, this chapter provides a detailed overview of the pre-testing (§3.6), the administration of the questionnaire (§3.7), as well as a description of the preliminary data analysis (§3.8) and statistical analysis based on the validity and reliability of the study in section 3.9.

The following section, section 3.2, elaborates on the research paradigm and the paradigm employed for this study.

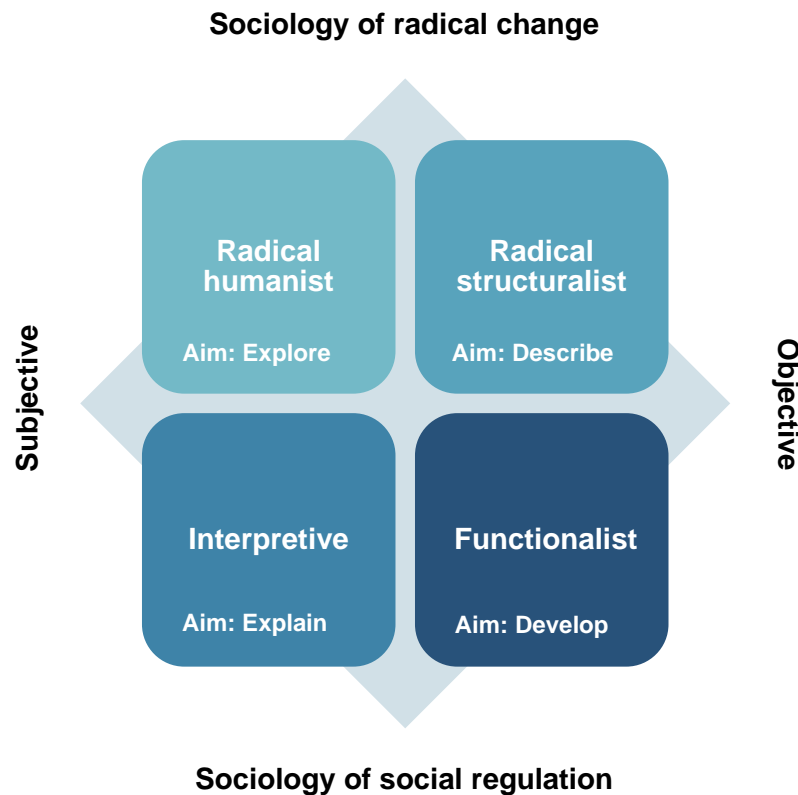
3.2 RESEARCH PARADIGM

Within a research study, the research philosophy is important to understand as it assists researchers in identifying and deciding on the correct belief in line with the research study's topic of investigation. This is known to be the research paradigm (O'Gorman *et al.*, 2015:59). The research paradigm is seen as a tool that researchers use to examine the research study's methodological characteristics to establish the specific methods and data analysis that will be used throughout the study (Kivunja & Kuyini, 2017:26). Furthermore, Kivunja and Kuyini (2017:26) assert that the research paradigm is the researcher's way of thinking, the way of seeing the world, and is a reflection of their beliefs. The beliefs of the research paradigm are based on three assumptions, namely ontology, epistemology and research methodology (Killam, 2013:6).

Ontology refers to the nature, reality or being (O'Gorman *et al.*, 2015:59). Ontology asks the question: "What is reality?", or "What constitutes reality?" (Scotland, 2012:9). Furthermore, ontology is the phenomenon that determines whether the research is objective or subjective in nature. Objective refers to a research study that is external to the researcher's mind and by contrast, subjective means that the research study is a result of the researcher's mind (Ardalan, 2020:2). Epistemology refers to making sense of how the world is viewed and how something is known (Al-Ababneh, 2020:77; Kivunja & Kuyini, 2017:27). Epistemology is the extent of the phenomenon that can be either obtained or personally experienced (Ardalan, 2020:2). The research methodology entails the blueprint, more specifically the research approach that forms the overall research method used within a research study (Al-Ababneh, 2020:77). Methodology translates the ontology and epistemology by indicating how the research for the study is to be coordinated (Nayak & Singh, 2021:1). The methodology discusses the collection as well as the analysis of data, which can be quantitative or qualitative in nature, by answering the how, what and where (Scotland, 2012:9-10).

Ardalan (2020:1) asserts that there are four types of paradigms, namely the radical humanist, interpretive, functionalist and radical structuralist. Each of these paradigms has unique characteristics. Figure 3-1 indicates the type of paradigm based on the dimensions (whether subjective or objective) and the aim of research.

Figure 3-1: The paradigms



Source: Adapted from Ardalan (2020:3) and Cronje (2016:3)

From Figure 3-1, it is clear that two dimensions exist within the research paradigm: the subjective-objective dimension, and the radical change-social regulation dimension. According to Kose *et al.* (2021:231), the first dimension, the subjective-objective dimension, entails the allocation of the four paradigms. Within the second dimension, social regulation focuses on consensus and social integration, while being concerned with retaining social regulation and the social order; whereas radical change pursues the replacement of the status quo, enabling change as well as conflict, and is concerned with exposing gainsay (Ardalan, 2016:5). The dimensions form the four paradigms of radical humanist, interpretive, functionalist and radical structuralist (Lucarelli & Brorström, 2013:71). The aim of the research paradigm can be explored, explained, developed or described, and is explained in section 3.3 (Cronje, 2016:3).

The four paradigms mentioned above can be outlined as follows: firstly, the radical humanist paradigm has an anti-human as well as anti-positivism view of society and the perspective of this view can be voluntarism and idiographic (Ardalan, 2020:6; Burrell & Morgan, 1979:32). Voluntarism indicates that individuals are creative, while having the freedom and independence to form the desired environment through actions and thoughts, while idiographic asserts that a subjective analysis is used to understand the world, as each individual has a distinct interpretation

of the world (Javanmardi *et al.*, 2020:909). The radical humanist paradigm assigns great importance to human consciousness, as well as the alienation and critique from aspects of the researcher's concerns (Ardalan, 2020:6). Furthermore, this paradigm entails the ontology to be historical realism within the context of a virtual reality being explored within a political, economic, social, cultural, and common value framework (Dammak, 2015:8; Scotland, 2012:13). The epistemology of the radical humanist paradigm has a subjective standpoint, where radical change come to be (Burrell & Morgan, 1979:32). The radical humanist paradigm forms the assumption of critical theory, nominalism, or post-modernism (Gunbayi, 2020:51). Within this paradigm, a mixed research approach is usually employed, meaning both quantitative and qualitative research can be used (Dammak, 2015:6). Furthermore, this paradigm uses open-ended questions and group interviews, surveys, observations and journals to collect relevant data (Dammak, 2015:10). The aim of this paradigm is to explore other possibilities to current societal arrangements to criticise the social order to emphasise radical change (Ardalan, 2016:6; Cronje, 2016:2).

Secondly, the interpretive paradigm entails that reality is individually created and that it unfolds when consciousness is engaged with enriched objects that are filled with meaning (Scotland, 2012:11). According to Ardalan (2016:5), individuals in this paradigm pursue to understand the world in which they reside. The ontology of this paradigm tends to be multi-relativism, which implies that it varies from individual to individual (Dammak, 2015:5; Scotland, 2012:11). According to Ardalan (2016:5), similar to the radical humanist paradigm, the interpretive paradigm has an epistemology that is subjective in nature, and the perspective view of voluntarism and ideography (Javanmardi *et al.*, 2020:909). It is in line with Günbayi and Sorm (2018:63), who emphasise the subjective portion of analysis as *status quo*, social order and cohesion. According to Dammak (2015:6), the methodology through which interpretivism data is collected includes a qualitative approach (more specifically through observations, focus groups, one-on-one interviews and personal journals). The assumptions of constructivism, nominalism, or post-modernism encounter for the interpretivist paradigm (Gunbayi, 2020:51). Furthermore, the aim of the interpretive paradigm is to explain environments with the intent to explain occurrences in order to understand the nature of the occurrences (Ardalan, 2016:5; Cronje, 2016:2).

Thirdly, the researcher within the functionalist paradigm is concerned with how society sustains order, and seeks to interrogate regularities as well as relationships that lead to generalisations and basic universal concepts (Ardalan, 2016:4). This paradigm is greatly pragmatic and has a viewpoint that is determinist and nomothetic (Burrell & Morgan, 1979:26). According to Javanmardi *et al.* (2020:909), determinism is an individual's mechanical response to the environment, all events as well as the behaviours that are put in place, based on previous cause-effect occasions. In contrast to this, nomothetic is an indication of general laws and universal

construct measurements (Javanmardi *et al.*, 2020:909). The ontology of the functionalist paradigm tends to be critical realism, meaning that the reality is imperfect (Gunbayi, 2020:51). This paradigm accepts the social world to be real, which indicates that the social world can be examined and measured (Ardalan, 2016:4). The epistemology of this paradigm is objective in nature (Lucarelli & Brorström, 2013:71). The functionalist paradigm forms the assumption of post-positivism, realism and modernism (Gunbayi, 2020:51). The research methodology approach of the functionalist paradigm is indicated by Gioia and Pitre (1990:590) as quantitative, and by Kose *et al.* (2021:234) as qualitative, whereas Gunbayi (2020:52) indicates that this paradigm can make use of the quantitative and qualitative (mixed-method) research approach. The functionalist paradigm aims to develop solutions in the search for social regulation for the purpose of estimation and control (Ardalan, 2016:4; Cronje, 2016:2).

Finally, the radical structuralist paradigm focuses on a realist social creation of structural relationships (Callaghan, 2016:84; Hartley, 2010:276; Romani *et al.*, 2018:407). The key components of the radical structuralist entail contraction, crisis and totality, while being ruled by social class, affiliation and an attempt to embrace the environment thereof (Ardalan, 2016:7; Callaghan, 2016:83-84). This paradigm makes the assumption of positivism, realism and modernism (Gunbayi, 2020:51). The paradigm also has a point of view that tends to be nomothetic and determinist, similar to the functionalist paradigm (Callaghan, 2016:84). The radical structuralist paradigm has the ontology of objectivism and an epistemology of realism rooted in social change (Günbayi & Sorm, 2018:69). This paradigm mainly has the methodological focus of a quantitative research approach, with a substantiation of hypotheses (Gunbayi, 2020:51). Kabir (2016:203) indicates that quantitative data can be collected online, face-to-face or telephonically through tests or experiments, observations, questionnaires (surveys), and structured interviews. Furthermore, this paradigm aims to describe the research topic or problem position as it is (Cronje, 2016:2). The radical structuralist paradigm has the aim to understand, acknowledge and describe the structural means that exist for the research topic or problem, with the idea of radical change (Cronje, 2020:20-21; Gioia & Pitre, 1990:589; Hartley, 2010:276).

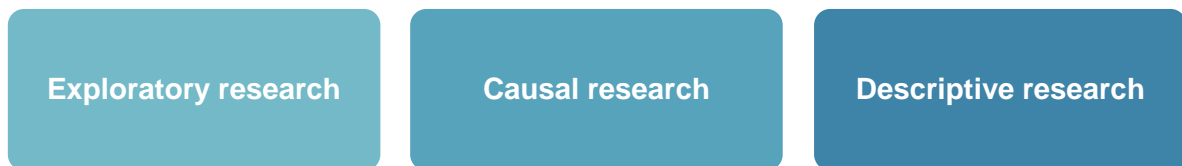
For the purpose of this research study, the radical structuralist paradigm was followed to guide the researcher. The radical structuralist paradigm was used as the research study is rooted in the sociology of regulation, and to ascertain the objective view, external to the researcher's mind, of consumers' use of online shopping during the COVID-19 pandemic.

In this section, the research paradigm was discussed and indicated. The following section elaborates on the research design employed for this study. The research design plays a significant role in research as it presents a structure to the pursuit for a response to the research question posed in this study (Edmonds & Kennedy, 2017:2).

3.3 RESEARCH DESIGN AND APPROACH

A research design is described as the specific research study's applicable framework, through which the research problem is identified and developed (Mooi *et al.*, 2017:13; Sileyew, 2019:2). Kazdin (2021:7) similarly indicates that the research design framework not only investigates the research problem, but also examines the hypotheses formulated for the research study. The purpose of the research design is to enable the researcher to collect data and provide an answer to the research question that was identified and established from the research problem (Akhtar, 2016:68; Gatrell *et al.*, 2020:42). Research design is categorised into three types of research: exploratory research (based on the collection of qualitative data), descriptive research (based on the collection of quantitative data), and causal research (also referred to as exploratory research) (Czinkota *et al.*, 2021:200). The three categories of the research design are indicated in Figure 3-2.

Figure 3-2: Types of research designs



Source: Adopted from Market Research (Mooi *et al.*, 2017:14)

An exploratory research design seeks insight into a study's research problem that occurs when previous knowledge is very scarce (Kumar *et al.*, 2018:73). An exploratory research design usually occurs in the early stages of the specific research study, leaving space for further investigation, and is closely associated with the exploring of new interests such as new customers and new environments (Casula *et al.*, 2021:1707; Czinkota *et al.*, 2021:201). Exploratory research mostly makes use of a qualitative research approach (Shukla, 2019:36). Furthermore, exploratory research also assists the research problem by formulating hypotheses for greater support in understanding the problem associated with the research study (Czinkota *et al.*, 2021:201). A hypothesis is a proposed statement or a belief about results or experiences (based on limited existing evidence), which is based on the social world (Bergin, 2018:21). In hypothesis testing, the obvious key component is the formulation of a hypothesis (Emmert-Streib & Dehmer, 2019:946). Hypotheses, which are supported by data, are important in helping to make and test a statement's significance about the population (Agrawal, 2020).

The causal research design reveals the evidence of the nature of the relationship, based on cause-and-effect, in order to gain knowledge on which variables of the causal relationship are independent (cause) variables and dependant (effect) variables (Malhotra *et al.*, 2017:79). Causal

research is mainly used to indicate whether one or more variables are being observed, and whether one of the observed variables would have an impact or effect on another observed variable. Furthermore, the independent variable (the cause) may have an impact on the dependent variable (the effect) (Bhasin, 2020). To gain a greater understanding of a causal research design and the relationships between variables, a specific experiment should be conducted to establish the effects of the variables (Burns *et al.*, 2017:102). According to Shukla (2019:43), two types of experiments exist: laboratory experiments and field experiments. These two types of experiments tend to be similar, but their environments differentiate them. Firstly, a laboratory experiment entails that a desired situation or environment is created and manipulated by the researcher, whereas field experiments exist in a natural environment and manipulation is intended by the researcher (Shukla, 2019:43).

A descriptive research design aims to describe an existing occurrence as accurately as possible, while providing answers to questions such as the who, the what, the where and the when of the topic or problem being researched (Atmowardoyo, 2018:198; Burns *et al.*, 2017:98). The purpose of a descriptive research design is to study and characterise specific individuals, conditions or events in their natural form (Mooi *et al.*, 2017:17-18). A descriptive research design is used when the primary objective is to provide information and examine existing markets as well as consumer groups by looking at their similarities and differences (Czinkota *et al.*, 2021:202). A descriptive research design mostly makes use of the quantitative research approach (Shukla, 2019:36). Furthermore, descriptive research can be divided into two types, i.e. cross-sectional and longitudinal. Cross-sectional is when data is collected from a specific sample only, at one point in time, whereas, longitudinal is when the data of the specific sample is collected more than once over a period of time (Burns *et al.*, 2017:99).

The research approach refers to the broad assumptions collected and analysed into narrower detailed data methods by following specific plans and procedures (Abutabenjeh & Jaradat, 2018:245). Although there are many different types of research approaches available to use, the two main approaches used are the qualitative and quantitative research approaches (Czinkota *et al.*, 2021:203; Leavy, 2017:9).

Qualitative research takes place when respondents are observed. Interpretations are made by collecting, analysing and mapping unstructured non-numerical data in order to understand the respondents' lived experiences (Alase, 2017:9; Burns *et al.*, 2017:144; Gatrell *et al.*, 2020:45). According to Malhotra *et al.* (2017:153), quantitative research is closely related to the exploratory research design. The qualitative research approach deals with the changing dynamics of reality, and is concerned with the person-centred view of the research study (Park & Park, 2016:4).

Characteristics of qualitative data include (i) interaction with the data, (ii) it is subjective in nature, (iii) unstructured, and (iv) biased (Park & Park, 2016:3). The qualitative research approach forms open-ended questions and the data format is typically in a text form (Basias & Pollalis, 2018:97). A qualitative research approach focuses on smaller participation groups in order to be able to do, for example, observations and in-depth interviews (Czinkota *et al.*, 2021:203). Queirós *et al.* (2017:374) indicate that qualitative research can be done through focus groups, case studies, in-depth interviews, observations and field research. Furthermore, qualitative research boasts the advantage of assisting researchers in unknown environments and in-depth research, in order to better comprehend a phenomenon's nature and difficulties (Basias & Pollalis, 2018:95).

Quantitative research focuses on assessing the variation within a phenomenon while following a structured procedure (Kumar *et al.*, 2018:16). Malhotra *et al.* (2017:153) indicate that a quantitative research design correlates with both the causal and descriptive research design. Quantitative research aims to collect data to address the research problem and is expressed in numerical form to test certain theories (Rahi, 2017:2; Streefkerk, 2021). Quantitative research maintains objectivity by reducing the influence of the researcher throughout the data collection process (Leavy, 2017:39). Furthermore, quantitative research is described as an approach with structured research questions, with deductive logic of a large group of respondents (Burns *et al.*, 2017:143).

The quantitative research approach is characterised as being (i) independent, (ii) structured, (iii) objective in nature, and (iv) unbiased (Park & Park, 2016:3). Quantitative research forms close-ended questions and the data is numeric or quantifiable in nature (Basias & Pollalis, 2018:97). A quantitative research approach is used in situations such as where the aim is to collect data from a population, or from economic and social statistical areas (Patel & Patel, 2019:49). The quantitative research approach can be completed through surveys, simulations and field experiments (Queirós *et al.*, 2017:374). Furthermore, quantitative research has several advantages, such as the presentation of facts not being influenced by personal opinions, data is easily compared, and large amounts of the collected data is rationalised (Basias & Pollalis, 2018:92).

The quantitative and qualitative research approaches can be used together, forming a mixed-method research approach (Creswell, 2012:535; Leavy, 2017:164). The mixed approach assists researchers in answering the research study question or problem that cannot be solely answered through merely the qualitative or quantitative approach (Sreejesh & Mohapatra, 2014:48). The mixed-method research approach is useful in complex situations where the purpose is to evaluate, explain or describe the research problem (Leavy, 2017:164). According to Creswell (2012:535), the mixed-method research approach is a powerful approach where researchers can

merge and build the strength of the research study on both the quantitative and qualitative approach. However, this approach tends to be time-consuming, and requires substantial data collection as well as analysis.

For the purpose of this study, a cross-sectional descriptive research design utilising an online questionnaire was used, as data was collected at one point in time to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour. This was done to not only support the larger population sample, but also to support the descriptive cross-sectional research design. Due to the employment of rigorous analysis techniques that have higher merit for decision-making, this quantitative method is thought to be more valid and reliable (Shukla, 2014:54).

Establishing the sampling strategy is the following phase in the research process after formulating the research question and creating the research design (Bordens & Abbott, 2018:223). The sample plan as it applies to the research process will be discussed in more detail in the following section.

3.4 SAMPLING STRATEGY

Sampling is defined as a technique used in a research study to select a smaller subset of respondents out of the larger defined population chosen for the specific research problem of the study (Sharma, 2017:749). Sampling takes place to enhance the speed at which the data for the research study is collected and the results collected are more accurate (Rahi, 2017:3). Furthermore, sampling is used when it is difficult to collect data from every individual within the selected population (Sharma, 2017:749). A sample refers to the subset of respondents chosen for the research study (out of the larger group of the target population) with similar characteristics, who are of interest to draw a general conclusion of the targeted population at the end of the research study (Martínez-Mesa *et al.*, 2016:326).

As a result, the process of selecting a portion of the population (the sample relevant to the study) in order to create a representation of the study's units on a smaller scale is referred to as the sampling strategy (Mitchell & Jolley, 2010:283; Shukla, 2014:52). A sampling strategy is formulated out of a set of components that have to be followed in a specific order. The components of a sampling strategy entail the target population relevant to the research study, the sampling frame thereof, the sampling method, and the sample size (Taherdoost, 2016b:19).

The following sections explain the sampling strategy of the target population, the sampling frame, the sampling method and the sample size selected for this research study.

3.4.1 Target population

According to Malhotra *et al.* (2017:919), the population of a marketing research study is elements that have a common set of attributes that set the view for the study. The population can be individuals, consumers or businesses as a group upon which the researcher wants to make a judgement (Mooi *et al.*, 2017:41). It is important to define the research study's population before continuing to conduct the study, so that the most value can be added to the study (Sreejesh *et al.*, 2014:19). A target population is defined as those individuals who are of interest to provide information needed to the researcher and the research study (Casteel & Bridier, 2021:343). A target population is of high importance, because it is somewhat impossible to collect data from an entire population (Edmonds & Kennedy, 2017:19). The target population of a research study is the individuals with similar characteristics, based on a set of data that is of interest to the study conducted, in order to ensure that the target sample is representative of the larger population (Martínez-Mesa *et al.*, 2016:326).

For the purpose of this research study, the target population was defined as those individuals, 18 years of age and older, who engaged in online shopping during the COVID-19 pandemic.

3.4.2 Sampling frame

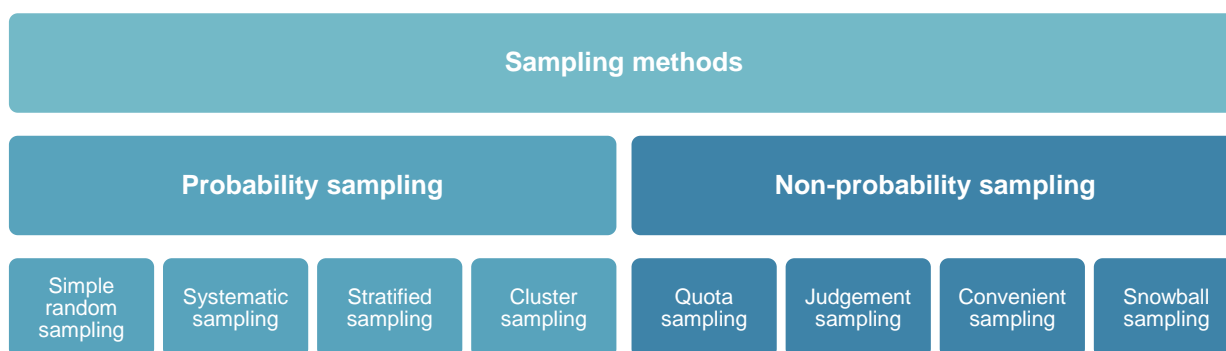
The sample frame is defined as the suitable group of individuals from the study's target population (Martínez-Mesa *et al.*, 2016:327). According to Blythe and Martin (2019:108), a sample frame refers to the researcher's desire to draw a sample from a specific group chosen for the research study; however, this remains a difficult challenge. A sampling frame is a smaller defined frame of the target population, and it is important to consider sampling error when studying only a sample from the larger population (Burns *et al.*, 2017:239). A sampling error refers to a level of error in the sample frame that does not account for the entire target population of the research study (Burns *et al.*, 2017). The sampling error is the difference between the estimated sample and the actual population (Creswell, 2012:147). Cohen *et al.* (2018:209) indicate that mistakes made within a sample procedure might not necessarily be because of a sampling error, but rather the attributable likelihood of different individuals being selected. Brace (2018:1) asserts that in the selection of respondents, sampling error stems from random variations. Non-sampling errors arise from elements other than sampling, such as errors made in the problem statement, the type of approaches and scales used, and the questionnaire design (Malhotra *et al.*, 2017:83). Furthermore, Brace (2018:1) indicates that non-sampling errors might emerge from errors in the data preparation and entry process, and errors made when constructing the questionnaire. However, Mooi *et al.* (2017:44) emphasise that fewer errors occur when the population and the sampling frame are similar. Sections 110 and 114(4) of the Protection of Personal Information Act 4 of 2013, which is included in the Constitution of the Republic of South Africa, safeguards

individuals' privacy and data. The Protection of Personal Information Act (PoPI) amendment was approved by the South African parliament on 22 June 2020, and it governs how both public and private organisations with a South African address may process personal information (South African Government, 2021). Therefore, obtaining a sample frame for this study was not possible.

3.4.3 Sampling method

A sampling method is the technique used to procure the individuals of interest to the sample of the research study, in order to collect and report on the necessary data (Casteel & Bridier, 2021:347). According to Mooi *et al.* (2017:44), there are two types of sampling methods: (i) probability sampling, and (ii) non-probability sampling. Each of these sampling methods has their own set of different techniques, as indicated in Figure 3-3.

Figure 3-3: Different types of sampling methods



Source: Adopted from (Mooi *et al.*, 2017:44).

The following subsections (§3.4.3.1- §3.4.3.2) explain each sampling method in detail.

3.4.3.1 Probability sampling

Probability sampling refers to the selection of the research study's sample based on the known probability of selecting the population of interest (Casteel & Bridier, 2021:347). Taherdoost (2016b:20) similarly indicates that probability sampling is the individuals of the population's equal opportunity of being selected into the sample. Furthermore, the probability sampling method process is random in selecting the sample (Sarstedt *et al.*, 2018:2). Rahi (2017:3) indicates that probability sampling has four different types of sampling techniques, namely simple random sampling, systematic sampling, stratified sampling and cluster sampling.

Simple random sampling takes place when each individual within the research study's population has the same possibility of being selected into the sample; the process is fair, honest and uncomplicated (Berndt, 2020:225). This sampling technique entails that each chosen element is independent and randomly chosen from the sample frame (Malhotra *et al.*, 2017:426). Simple

random sampling is easily encountered, it is unbiased and represents the sample well (Sharma, 2017:750).

Secondly, systematic sampling refers to the simplistic technique that chooses the sample out of the population more evenly (Sharma, 2017:750). Taherdoost (2016b:21) explains that in systematic sampling a random starting point in the population is selected and thereafter every n^{th} individual is chosen to be part of the sample. This sampling method is easy to use, inexpensive, the sample frame elements do not need to be known and it is mostly used within an online setting or at street interviews (Malhotra *et al.*, 2017:428).

Thirdly, stratified sampling is defined as the method that places a skewed population into different subgroups, where each of these subgroups is then sampled for the research study (Burns *et al.*, 2017:250). Stratified sampling is known as small groups or strata of the population that have similar attributes and characteristics, which reduces the possible bias of being selected into the sampling method (Sharma, 2017:750). Furthermore, the stratified sampling method should focus on increasing the precision and the characteristics, while relating to the stratification of variables (Malhotra *et al.*, 2017:429).

The last probability sampling technique, cluster sampling, involves that the population is divided into predefined groups from which any of these smaller groups can be selected to be part of the research study's sample (Berndt, 2020:225; Sarstedt *et al.*, 2018:5). An example of clusters or groups that can be chosen is business divisions or specific geographical areas (Taherdoost, 2016b:21). The cluster sampling technique is feasible, extremely low in cost and very effective (Malhotra *et al.*, 2017:432).

3.4.3.2 Non-probability sampling

Non-probability sampling is the sampling technique that selects respondents non-randomly out of the population to form the sample of the research study (Cohen *et al.*, 2018:214). Non-probability sampling allows respondents to be selected less-restrictedly, meaning that the probability of choosing each respondent out of the research study's population is unknown (Weber *et al.*, 2020:59). Non-probability sampling methods are currently a popular sampling method to make use of because of the high efficiency and the cost of sampling being low (Liu *et al.*, 2022:18). Four types of non-probability sampling techniques were identified as convenience sampling, quota sampling, judgement sampling and snowball sampling (Rahi, 2017:3).

The first non-probability sampling technique, convenience sampling, is the process of selecting respondents who are easy to obtain and accessible to be part of the sample out of the research study's population (Weber *et al.*, 2020:34). This sampling technique lifts limits of respondents by

conveniently making use of friends, family and other individuals that the researcher knows, rather than to acquire new individuals for responses (Taherdoost, 2016b:22). However, Malhotra *et al.* (2017:420) indicate that respondents who are within a specific place at the right time, such as a street interview, are often selected into the sample. This technique is favoured by researchers because it is an affordable and an easy technique to use (Taherdoost, 2016b:22).

Secondly, quota sampling involves the classification and importance of the population's specific attributes and characteristics that are controlled to generalise the quota used in the sampling of the research study (Cohen *et al.*, 2018:218; Deshpande & Girme, 2019:1060). Quota sampling benefits the study as some of the respondents' characteristics can be controlled (Taherdoost, 2016b:23). This sampling technique is useful when researchers have limited budgets and time, and when the sample frame is unavailable (Anieting & Mosugu, 2017:34). According to Mooi *et al.* (2017:46), this sampling technique is effective and very important in the field of marketing research.

Thirdly, judgement sampling, also known as purposive sampling, refers to the technique where researchers use their own judgements when selecting a sample (Sharma, 2017:751). The technique requires that researchers make the correct judgements about selecting respondents and that the chosen respondents will meet the research study's objectives in the best possible way (Weber *et al.*, 2020:59). Judgement sampling is not only convenient and ideal for when exploratory research design is used, but information is also obtained from a specific individual who can provide the important information that is needed for the research study (Taherdoost, 2016b:21). This sampling technique is useful when a qualitative research study with more than one aim is used, and it can also assist researchers in justifying background (Berndt, 2020:226).

The final non-probability sampling technique, snowball sampling, entails that a group of respondents are selected, with the aim that these respondents have the desired attributes of the study's target population in order to obtain referrals from initial respondents, causing a snowball effect (Malhotra *et al.*, 2017:424). Snowball sampling is used in hard-to-recruit situations that involve that respondents are identified into the sample and then thereafter, upon request, ask these specific respondents to recommend other respondents with almost identical characteristics or ways of doing things, to also be included into the research study's sample (Dosek, 2021:651). This sampling method is reliable when the research study's topic is sensitive to respondents and when the study's sample frame is unknown (Dosek, 2021:651).

Based on the above, for the purpose of this research study, a non-probability snowball sampling method was used to gather data. The snowball sampling method was the best suited sampling method to use to determine consumers' online shopping behaviour during the COVID-19

pandemic. An online questionnaire was distributed on social media platforms, more specifically Facebook and Instagram, where respondents were asked to distribute the link to the online questionnaire to other individuals with similar characteristics relating to online shopping during the COVID-19 pandemic.

3.4.4 Sample size

A sample size is defined as a subset of the population, but more specifically the number of respondents combined out of the research study's population (Omnicore, 2020). Sampling size is an important item that contributes towards the research study, with the goal to make a link between the population and the sample thereof (Taherdoost, 2017:237).

Mooi *et al.* (2017:47) indicate that in a research study a large sample size may increase precision; however, smaller sample sizes are precise. Cohen *et al.* (2018:204) assert that a large sample size may be unmanageable, where a small sample size might be too small for representativeness. Neither a large nor small sample will guarantee representativeness of the population (Cohen *et al.*, 2018:204). Malhotra *et al.* (2017:417) indicate that a larger sample size will have smaller precision than a small sample size. Selecting a sample accurately can be the strength of a sample size (Mooi *et al.*, 2017:47). Furthermore, Malhotra *et al.* (2017:417) indicate that the size of the sample is influenced by previous studies in a similar research field.

The sample size for this research study was selected in line with previous studies that focused on the COVID-19 pandemic and consumer behaviour: Hashem (2020:63) used a sample size of five hundred (500), Koch *et al.* (2020:6) used a sample size of four hundred and fifty (450), and finally, Veeragandham *et al.* (2020:76), who had a sampling size of two hundred and thirty (230) in their research study. Furthermore, for this research study, a combination of standardised and validated scales was used (Avcilar & Özsoy, 2015:33; Ghali, 2021:10; Holmqvist & Lunardo, 2015:119; Saleem *et al.*, 2020:14; Tran, 2021:7). According to Hair *et al.* (2021:161), for each item included in the questionnaire, a minimum of five responses should be collected in order to be representative. With this in mind, a sample size of 280 was considered adequate to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour.

This section concluded that the target population for this research study was those individuals, who are of 18 years of age and older, who, during the period of the COVID-19 pandemic, engaged in online shopping. The sample method used was a non-probability snowball sampling method with a sample size of two hundred and eighty (280) respondents.

Within the subsequent section, section 3.5, the study's data collection instrument that was used is explained in full.

3.5 DATA COLLECTION METHOD AND INSTRUMENT

According to Zozus (2017:315), capturing data that is original or secondary in nature for the purpose of a research study is called 'data collection'. Data collection refers to collecting information of interest, answering relevant questions, testing hypotheses and evaluating the data collected by the researcher from relevant respondents who are able to contribute towards the phenomenon that exists within the research study (Burns *et al.*, 2017:290; Kabir, 2016:202). Within a quantitative research study, the most popular method of collecting data is through doing surveys (Kabir, 2016:203).

The academic and marketing research sector makes use of the well-known and universally used questionnaire (survey) method to obtain meaningful insights into the phenomenon being researched (Hulland *et al.*, 2018:92). Typically, a questionnaire entails the means of obtaining data on the population by measuring the respondents' behaviours, beliefs, attributes, characteristics, opinions or perceptions regarding the research study's phenomenon (Kabir, 2016:244; Speklé & Widener, 2018:3).

Questionnaire methods are conducted through the pencil-and-paper method, face-to-face interviewing method, and web-based questionnaire methods (Kalton, 2019:21; Raju & Harinarayana, 2016:1). Zozus (2017:58) noted that in the modern way of doing things, the process of collecting data is mostly electronically. Zhang *et al.* (2017:172) indicate that the use of web-based questionnaires is increasingly prevalent among data collection. New technologies have changed and created more possibilities for web-based questionnaires (Evans & Mathur, 2018:854). McInroy (2016:85) states that there are two types of web-based questionnaires, namely email-based questionnaires (where the questionnaire is sent via an email), and online web-based questionnaires (which is conducted by making use of an online website or online platform). Online web-based questionnaires are known as a data collection mode that allows the respondents to comfortably participate in online questionnaires through the internet. This method proves to be more appealing and motivational for respondents to fully complete the questionnaire (Monzon & Bayart, 2018:168). Online web-based questionnaires can be further be categorised into two approaches: open-web-based questionnaires (which is where the website or online platform is open for anyone to visit), and closed-web-based questionnaires (which specifically invite respondents to visit the website or online platform to complete the questionnaire) (Brace, 2018:37).

The advantages of online web-based questionnaires include: (i) it has a global reach that is made possible via the internet on computers and smart devices; (ii) it is innovative due to its influence and improvements through technology; (iii) it works well with larger scales; (iv) it is mainly fast and low in costs; (v) it provides a diversity in the types of questions asked in an online

questionnaire; and (vi) its provides researchers with multiple different design options as well as flexibility to explore (Evans & Mathur, 2018:856; McInroy, 2016:85).

Online questionnaires involve respondents who willingly participate in a predesigned questionnaire (Burns *et al.*, 2017:171). An online questionnaire can furthermore be defined as a data collection instrument that obtains primary data by asking respondents different questions and allowing questioning options such as open-ended questions, multiple-choice questions and scaled questions to be included in the online questionnaire for the purpose of the research study (Dalati & Gómez, 2018:178; Regmi *et al.*, 2016:641). Data collection can be done by means of one of the following methods: person-administered or self-administered (Sakshaug *et al.*, 2017:171). Person-administered requires an interviewer to be involved in the data collection process; this person reads the question to respondents and then records their answers for the questionnaire. By contrast, self-administered involves respondents to read and record their own answers in order to complete the questionnaire (Burns *et al.*, 2017:175).

For the purpose of this study, a self-administered closed-web online questionnaire method was selected to embrace and adopt the online aspect even further within this research study.

When selecting online questionnaires, Geisen and Bergstrom (2017:72) indicate that the following must be implemented for respondents to clearly understand and use this method:

- it must be well explained,
- easy to use, and
- be both computer and smart-device friendly.

With the online questionnaire method, respondents are asked to complete the questionnaire via an online link or a URL (Uniform Resource Locators) (Kalton, 2019:21). There are different types of online questionnaire (survey) software or apps that can be used to design an online questionnaire, namely: Google Forms, Survey Monkey and Type Form (Raju & Harinarayana, 2016:4), to name a few. The online questionnaires may collect data by developing an advertisement that provides a link on online social media platforms such as Facebook, Twitter, Instagram and WhatsApp, which directs respondents to the online questionnaire developed on the researcher's chosen software or app (De Boni, 2020:2; Kalton, 2019:22; McInroy, 2016:85).

The required data for this research study was gathered through the survey administration software Google Forms. Potential respondents were recruited online through the social media platforms Facebook and Instagram, where the distribution of the online questionnaire took place by developing an advertisement (refer to **Appendix A**) that provided the link to the online

questionnaire and all other the necessary information respondents needed to be able to participate in the research study.

The next section of this research study discusses the research instrument by a discussion on the questionnaire design, format and layout.

3.5.1 Questionnaire design

Within a research study, the questionnaire (survey) is the key communication medium between the researcher and the respondent (Brace, 2018:4; Leavy, 2017:15). The questionnaire comprises a standardised set of questions that are asked exactly the same to multiple respondents, and it allows data to be collected from the questions respondents answered (Brace, 2018:4-5). The overall goal of a questionnaire is to be as simple as possible to understand for respondents, but it should also be well designed in order to gather the data needed for the research study to be conducted (Žmuk, 2017:49).

The questionnaire design entails a process of developing a well-designed questionnaire that is formulated to collect truthful answers to questions from respondents to avoid all possible errors that can occur during the data collection process (Žmuk, 2017:49-50). According to Wigmore (2022), common errors of a questionnaire include the following:

- the length of the questionnaire being too long,
- misleading and biased language used in the questionnaire,
- asking similar questions in different forms, and
- asking too many personal questions that will lead to respondents not finishing or abandoning the questionnaire.

The objectives to develop a well-designed questionnaire are, firstly, a well-structured cover letter and questionnaire body, while avoiding complicated, double-barrel and misleading questions (McMillan & Schumacher, 2014:212-213; Mooi *et al.*, 2017:78; Wigmore, 2022). Structured questionnaires are close in relation to quantitative analysis and is the measuring instrument that consists of a set of standardised questions. This focuses on the correct order as well as wording of those questions to gather data for the research study (Cheung, 2014).

The questionnaire body consists of questions that are logical and in line with the research study's topic (Brace, 2018:7). Burns *et al.* (2017:218) indicate that the wording in a questionnaire should focus on the research study's topic and questions should include the use of correct grammar, it should be brief, and clearly structured. The inclusion of a cover letter is of high importance as it

includes all the necessary information and motivation respondents need to complete the questionnaire (Singh, 2017:793).

The research study's online questionnaire followed the suggested guidelines as it was easy for respondents to complete, and was well structured on the online survey software, Google Forms. The online questionnaire included a cover letter, which informed respondents of why the study is being conducted, ensured their confidentiality, and informed respondents that participation is completely voluntary. The online questionnaire also included an informed consent section, as well as a screening question before the official questions started. Two sections were included in the questionnaire: Section A and Section B. Firstly, Section A: Online shopping behaviour, determined consumers' type of products and services bought during the COVID-19 pandemic, and secondly, Section B: The influence of the COVID-19 pandemic on consumers' online shopping behaviour, which determined consumers' online shopping behaviour during this pandemic. The online questionnaire consisted of multiple different questions with the main aim to determine consumers' online shopping behaviour during the COVID-19 pandemic. The instructions for each section were provided at the start of the section, and each question included in the questionnaire was stated in a clear and understandable manner.

The questionnaire is available in **Appendix B**.

Section 3.5.2 describes the format of the online questionnaire that was used within this study.

3.5.2 Question format

The question format refers to the formation in which the questionnaire is formatted, so that it appears as clear and well formatted as possible, to result in a good impression and cooperation of respondents (McMillan & Schumacher, 2014:218). McMillan and Schumacher (2014:218) continue by emphasising three important aspects of the nature of the questionnaire format: (i) it should be easy to read as well as to understand, (ii) it should be spaciouly laid out and uncluttered, and finally (iii) related items should be grouped together within the questionnaire.

Two types of question formats within a questionnaire exist. A question can be open-ended or close-ended (Brace, 2018:55). Open-ended questions are questions in which the respondents formulate their own answers (Singh, 2017:792). Open-ended questions explore the research study's topic or problem that occurs in-depth with the aim to understand the process while seeking spontaneous answers that are not suggested within the question (Brace, 2018:55; Weller *et al.*, 2018:2). Open-ended questions are time consuming and researchers have very little control over respondents' responses (McMillan & Schumacher, 2014:213; Mitchell & Jolley, 2010:275).

Furthermore, an open-ended question may be written-up in a short or longer response, but also answered through a listed response (Weller *et al.*, 2018:2).

Closed-ended questions, on the other hand, are popular and provide information to researchers by means of short and quick answers to questions, which are easier and somewhat predictable (Brace, 2018:56; Mitchell & Jolley, 2010:276). Bustillos *et al.* (2022:1) indicate that close-ended questions are short answered questions (yes or no), and restricted, for example by choosing option a, b, c, or all of the above. Furthermore, close-ended questions are shorter questions that can be asked in different forms such as lists, different categories, rankings, grids and rating scales (Ragab & Arisha, 2018:15).

For the purpose of this study, close-ended rating scales were used to obtain and measure the respondents' responses on the influence of the COVID-19 pandemic on consumers' online shopping behaviour.

Within research methodologies and in marketing research, measurements are of high importance (Burns *et al.*, 2017:205; Kaufman & Kaufman, 2005:95). Measurements entail that an object, which is of interest to the researcher, is determined through a description or a quantity thereof (Burns *et al.*, 2017:205). The important areas of measurements are that it enables the ability to quantify variables as well as constructs, and at the advanced level, it analyses the data of a research study that depends on the measures of scales, where the variables of interest are quantified (Kaufman & Kaufman, 2005:96). As an extension of measurement, scaling exists, which implies that measured objects are located upon the creation of a continuum (Malhotra *et al.*, 2017:336). To better understand what measures of scales are, one must note that two categories for measures of scales exist. Firstly, categorical scales are the nominal scales and ordinal scales, and secondly, continued scales are ratio scales and interval scales (Creswell, 2012:165). Within marketing research, rating scales are highly used to obtain responses from respondents throughout, by using the scales explained above, in the questionnaire (Burns *et al.*, 2017:206). A rating scale collects responses from respondents by using scaled items (Ragab & Arisha, 2018:15). Taherdoost (2019:2) identifies a rating scale as the measurement of an object or phenomenon at a point in time. Four types of rating scales exist: (i) nominal scales, (ii) ordinal scales, (iii) ratio scales, and (iv) interval scales.

Nominal scales are purely descriptive in nature and there is no zero-point assigned (Kaufman & Kaufman, 2005:97). This scale is the most basic measuring scale (Mooi *et al.*, 2017:36). The numbers assigned to the characteristics have no mathematical meaning, are bound to what is being measured, and their only purpose is to describe the variables (Malhotra *et al.*, 2017:338). Nominal scales can be gender, religion, a student identification number, or an individual's

occupation (Kaufman & Kaufman, 2005:97; Malhotra *et al.*, 2017:338; Sreejesh *et al.*, 2014:112). Table 3-1 provides an example of a question based on a nominal scale.

Table 3-1: Example of a nominal scale

Please indicate what sector you work in:	
Private sector	Public sector

Source: Author’s own compilation

Ordinal scales allow for responses to be ranked, where the order of the objects is known, but not the variance in between (Burns *et al.*, 2017:207). According to Sreejesh *et al.* (2014:113), this scale arranges the objects in a specific order and only the position of what is being observed can be known. The ordinal measure can include the measure of judgements from a participant’s perspective, such as ranking objects preferred from greater than or less than an object, or respondents can be asked to rank specific items from 1 to 5, where 1 is the most liked item and 5 is the least liked item (Malhotra *et al.*, 2017:340; Sreejesh *et al.*, 2014:113). Table 3-2 provides an example of an ordinal scale question in a questionnaire.

Table 3-2: Example of an ordinal scale

Please indicate your highest level of education:					
Less than matric	Matric	Diploma	Undergraduate degree	Post-graduate degree	Professional

Source: Author’s own compilation

Ratio scales are measures where a zero exists, meaning that when an item is measured with this scale, the value of zero indicates that the characteristic of the item is not present (Mooi *et al.*, 2017:37). According to Burns *et al.* (2017:207), when comparing measurement results, the ratio scale characteristics allow for the construct of ratios and this type of scale is easily understood by respondents. Examples of ratio scales are the number of individuals in a household, the sales of items, the amount of a specific currency spent, the market share, and more generally, an individual’s height or weight (Burns *et al.*, 2017:207; Malhotra *et al.*, 2017:341). Table 3-3 provides an example of a ratio scale question.

Table 3-3: Example of a ratio scale

How many times per week do you shop online?						
0	1	2	3	4	5	More than 5 times

Source: Author's own compilation

Interval scales, also known as rating scales, provide responses to questions with the conjecture of equal span (interval) between the question choices (Creswell, 2012:167). Table 3-4 provides an example of an interval scale question.

Table 3-4: Example of an interval scale

<p>Please indicate the extent to which you disagree/agree with each of the following statements by placing a cross (X) in the appropriate box by making use of the following scale: Strongly disagree; (2) Disagree; (3) Neutral; (4) Agree; (5) Strongly agree</p>				
<p>Online shopping improves my performance when searching for items.</p>				
1	2	3	4	5

Source: Author's own compilation

The different types of rating scale approaches used to measure respondents' responses are the semantic differential scale, the Staple scale and the Likert scale (Dalati, 2018:89). Brace (2018:86) and Burns *et al.* (2017:209) similarly indicate that these three scales (semantic differential, Staple and Likert) are the most commonly used scales in marketing research .

- Firstly, the semantic differential scale is a bipolar rating scale that places opposites across from each other (Brace, 2018:89). The semantic differential scale is also known as a tool that measures respondents' behaviour towards a given object, for example rating a statement as fair to unfair (Stoklasa *et al.*, 2019:435).
- Secondly, the Staple scale can be defined as a non-verbal rating scale that measures the direction and intensity of respondents' preferences (Lalla, 2017:440). The Staple scale measures respondents' responses by placing a single description in the centre of the scale with points from -5 to +5 and no zero-point given, for example -5, -4, -3, -2, -1, (statement), +1, +2, +3, +4, and +5 (Sreejesh *et al.*, 2014:136).
- Lastly the Likert scale entails the use of multiple items, each with a statement and a scale (Maeda, 2015:15). The Likert scale uses statements to obtain respondents' behaviour by asking respondents to indicate whether they agree or disagree with the given statement (Willits *et al.*, 2016:127). Likert scales have four- to seven-point scales, where statements are intended to be measured on (Asún *et al.*, 2016:111). The use of a four-point Likert scale is highly beneficial as it is good for measuring behaviour of respondents by avoiding the misuse

of a midpoint on a scale, for example asking respondents to indicate the level of agreement with the statements made from (1) strongly disagree, (2) disagree, (3) agree, and (4) strongly agree (Chyung *et al.*, 2017:19).

The question design for the measuring instrument used in this study is a Likert scale that is most popularly used within marketing research (Chyung *et al.*, 2017:15). A four-point Likert scale, with the measures as (1) strongly disagree to (4) strongly agree, with no mid-point, was used. No mid-point was used as it was compulsory for the respondents to either choose a positive or negative response to the item (question) given in this study to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour, as a clear indication of the respondents' behaviour during the COVID-19 pandemic was desired to be measured.

The scales and constructs utilised in this study were adapted and formed from previous studies. Six scales with a combination of 32 items in total were used to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour within this study; these scales have been used and validated by several other research authors, as outlined in Table 3-5.

Table 3-5: Constructs used in this study in line with previous studies

Scales	Items	Authors
Pandemic fear	B 1-9 (9 items)	Saleem <i>et al.</i> (2020:14); Tran (2021:7)
Online shopping intentions	B 10-13 (4 items)	Holmqvist and Lunardo (2015:119)
Perceived ease of use	B 14-18 (5 items)	Avcilar and Özsoy (2015:33)
Perceived usefulness	B 19-23 (5 items)	Avcilar and Özsoy (2015:33)
Privacy and trust	B 24-27 (4 items)	Tran (2021:7)
E-loyalty	B 28-32 (5 items)	Ghali (2021:10)

Section 3.5.2 discussed the format of the questionnaire used in this study, by stating the type of questions used, which was close-ended questions, the specific measuring instrument: a four-point Likert scale, and the six scales used in line with the research study of determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour and the measuring instrument. Furthermore, a self-administered online questionnaire was used. The questionnaire's first question asked the respondents to declare their participation by providing a "yes" or "no"

answer to a basic question. Thereafter, two screening questions followed to ensure that respondents qualify to participate in this research study. The screening questions were based on the specific characteristics or the target population. Thereafter, in the first section (Section A), respondents were asked to provide their online shopping behaviour of items purchased by choosing multiple options (all the options that apply to their shopping behaviour) in a checkbox format. In the second section (Section B), the influence of the COVID-19 pandemic on consumers' online shopping behaviour was measured by using the six scales outlined in Table 3-5. The 32 items were measured against a four-point Likert scale, scaled as (1) strongly disagree; (2) disagree; (3) agree and (4) strongly disagree.

Section 3.5.3 describes in detail how the online questionnaire for this study was laid out section by section.

3.5.3 Questionnaire layout

As this study followed a self-administered online questionnaire, it is important to understand that respondents are affected by the visual layout of the questionnaire and its questions (Stern *et al.*, 2014:293). The quality of a self-administered questionnaire's layout is of high importance and should be completely self-evident (Saris & Gallhofer, 2014:158). The questionnaire layout must be visually clear, attractive, and the wording must be in line with the headings of each section. Furthermore, the wording should also enable respondents to complete the online questionnaire by themselves with no further input from the researcher (Alsheikh & Sobihah, 2019:279; Enzmann, 2013:169).

An important element in the questionnaire layout is the unique introduction page (also referred to as the cover letter or informed consent) that cannot be standardised, as it sets the tone by informing the potential respondents of what is to follow further on in the online questionnaire (Burns *et al.*, 2017:223). The introduction page is highly important as it not only explains what is expected from respondents, but also highlights the anonymity of respondents, affirmation of confidentiality, and indicates the informed consent (Cohen *et al.*, 2018:499).

The online questionnaire used in this research study consisted of a cover letter, followed by two sections, Section A (Online shopping behaviour), and Section B (The influence of the COVID-19 pandemic on consumers' online shopping behaviour). Each question asked within these two sections, Section A and Section B, was set as "required". This means that respondents could not submit the questionnaire if all the questions were not answered.

Section A and Section B of the questionnaire layout will be further described below.

Section A: Online shopping behaviour

In this section, respondents were asked to indicate the types of products/services they purchased online during the COVID-19 pandemic, and if an item was not listed, to indicate, in a short one-answer (open-ended) question, what that product or service was.

Section B: The influence of the COVID-19 pandemic on consumers' online shopping behaviour

In order to determine whether consumers' online shopping behaviour was influenced by the COVID-19 pandemic, respondents were asked to indicate on a four-point Likert scale (where 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree) to what extent they agree or disagree with given statements. The statements provided were in line with the validated scales of pandemic fear, shopping intentions, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty as used in previous research studies (Avcilar & Özsoy, 2015:33; Ghali, 2021:10; Holmqvist & Lunardo, 2015:119; Saleem *et al.*, 2020:14; Tran, 2021:7).

Section 3.5 described the data collection instrument used in this study. With a specific focus on the online sector, a well-structured online questionnaire was developed to collect and measure consumers' online shopping behaviour during the COVID-19 pandemic. This questionnaire was developed with the online survey software, Google Forms. The questionnaire included the six scales that were used to collect data, by using rating scales, specifically a four-point Likert scale, with closed-ended questions. An advertisement was used to reach respondents and introduce them to the purpose of the study and asking them to willingly participate by completing the online questionnaire. This was done by clicking on the link attached to the advertisement that then directed the respondents to the online questionnaire. The informed consent section was provided in the cover letter of the online questionnaire before respondents continued to Sections A and B of the online questionnaire.

Section 3.6 describes how the questionnaire was pre-tested prior to distributing it online.

3.6 PRE-TESTING OF THE QUESTIONNAIRE

The pre-testing of a questionnaire is a key phase before the implementation of the research instrument. The pre-testing of a questionnaire assists the researcher to ensure that prospective respondents understand the proposed questions, statements and response options as it is intended by the researcher to gather the required data needed from these respondents (Perneger *et al.*, 2015:147). Pre-testing involves the collection of data from a small number of respondents to test whether the chosen data collection instrument and the formation thereof are in line with the aim of research study (Sreejesh *et al.*, 2014:20). The pre-testing also involves that the

respondents who are participating in the pre-test of the research study must be representatives of the study's target population (Burns *et al.*, 2017:230). Within pre-testing, debriefing of the questionnaire takes place. Debriefing takes place after the questionnaire has been fully developed to determine whether there are any problems or misleading information included in the questionnaire (Malhotra *et al.*, 2017:399; Willis, 2016:359). Debriefing allows for corrections to be made in the questionnaire, if any are pointed out by respondents during the debriefing process (Leedy & Ormrod, 2019:112). The process should be continued until no changes are required to the questionnaire (Malhotra *et al.*, 2017:399).

For this study, a pre-test was done in order to assess respondents' accessibility and usability of the online questionnaire used within this research study. Qualified researchers who specifically participated in online shopping during the COVID-19 pandemic were selected to assess the online questionnaire. The respondents were asked to complete the online questionnaire and comment, where necessary, with a specific focus on identifying possible errors, language and question clarity. Along with the aforementioned, the respondents included in the pre-test were also asked to consider and comment on the flow and the layout of the questionnaire. The questionnaires collected in the pre-test were not included in the final data analysis, but were rather used to strengthen the quality of the online questionnaire. During the pre-test, only one comment was received as feedback from one respondent. The suggestion was to change the second question in Section A to a non-required question, on the online platform. Thereafter, no further comments were given and the respondents of the pre-test approved the online questionnaire based on flow, layout, language and questions.

Section 3.6 elaborated on the pre-testing of the online questionnaire and how this was performed before the questionnaire was sent out to collect the required data needed.

The following section (§3.7) explains how the questionnaire for this study was administered.

3.7 ADMINISTRATION OF THE QUESTIONNAIRE

As mentioned above, for the purpose of this study, the online questionnaire was developed on the online survey software, Google Forms, where the cover letter (informed consent) and questions were integrated. After pre-testing was conducted and approval was given to obtain the data needed from respondents for this research study, the process of administering the questionnaire commenced.

An advertisement was created with the detailed information that respondents required to be able to make a decision on whether to participate in the study. The Google Forms platform provided a link to the online questionnaire that was then attached to the advertisement and posted on the

social media platforms, Facebook and Instagram. The self-administered online questionnaire was then shared by making use of a snowball sampling technique. This technique implied that no limitations were placed on the sharing options on these social media platforms and respondents could share the advertisement with the link to the online questionnaire with other respondents who meet the required criteria of the target population. The administration of the online questionnaire started in November 2021 and ended in April 2022. The data collected through the online questionnaire was automatically captured on Google Forms. Thereafter, the 280 responses collected were analysed and are reported on in Chapter 4.

This section, section 3.7, explained the administration of the online questionnaire used in this study. The following section, section 3.8, discusses this research study's preliminary data analysis.

3.8 PRELIMINARY DATA ANALYSIS

Preliminary data analysis is crucial in ensuring that the marketing research results are accurate (Malhotra *et al.*, 2017:11) All procedures from the actual data collection to the final analysis of the data form part of the preliminary data analysis (LaMothe & Bobek, 2017:327). Furthermore, the preliminary data analysis computes data into a smaller set of statistical datasets (Burns *et al.*, 2017:317).

The preliminary data analysis process involves editing of the data, coding of data collected and finally tabulation of the data (Sreejesh *et al.*, 2014:164). The preliminary data analysis process is discussed in the following section.

3.8.1 Editing

Editing forms part of the preliminary data process by correcting all mistakes made by the respondents. This process is usually repeated twice before continuing with the data analysis process (Sreejesh *et al.*, 2014:164). Editing consists of identifying questionnaires that were left incomplete or responded to inconsistently, before being recorded into the data analysis (Malhotra *et al.*, 2017:532). The purpose of editing the raw data is to ensure that the data is accurate, consistent, and completed to the highest possible quality. This is done to simplify the steps of the preliminary data analysis process that follow (Shukla, 2019:92).

3.8.2 Coding

After editing, the coding process of the preliminary data analysis takes place. Coding entails that a number or symbol is assigned to the answers of respondents to group the responses into categories (Shukla, 2019:94). The coding process ensures that each section and question in the data collection instrument is assigned a unique number (Singh & Singh, 2014:83). Furthermore,

Malhotra *et al.* (2017:535) indicate that the unique number is assigned to each possible answer available to the question. The purpose of coding is to reduce the amount of responses by simplifying them and to assist the analysis process by using a number that is universally understood (Shukla, 2019:94).

3.8.3 Tabulation

After the data has been edited and coded accordingly, the following step in the preliminary data analysis process is the tabulation of the data (Singh & Singh, 2014:83). The purpose of the tabulation process is to simplify the data appropriately by summarising the data collected and to display the data in tabled format (Sreejesh *et al.*, 2014:173).

For this study, editing formed part of the preliminary data analysis and took place to ensure that all the online questionnaires collected were fully completed as required and that they were free of any errors that occurred. This was done to ensure high quality data was collected. Section A of the online questionnaire was designed to collect information on the online shopping behaviour of the respondents. This section consisted of two questions, where the first question was coded as A1 (with the available answers coded from 1 to 9), and the second question was coded as A2 (that entailed an open-ended question, which was captured where applicable). Section B measured the influence of the COVID-19 pandemic on consumers' shopping behaviour. For this section, 32 items were included and were numbered from B1 to B32. Moreover, this section used a Likert scale that was ranked and coded as follows: (1) strongly disagree, (2) disagree, (3) agree and (4) strongly agree. Furthermore, the data captured from the statistical analysis was tabulated individually and reported on in Chapter 4.

This section described the preliminary data analysis used in the research study. The process involved the editing, coding and tabulation of the data collected in order to draw a conclusion and report on the results. The following section, section 3.9, describes the statistical analysis used within this research study in order to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour.

3.9 STATISTICAL ANALYSIS

The quantitative data research method quantifies data and applies statistical data analysis (Shukla, 2019:30). Statistical analysis is the collection as well as the analysis of data (numbers) in order to determine patterns (Brooks, 2022). Statistical analysis, specifically within quantitative research, allows for data to be analysed in order to determine its true denotation (Leedy & Ormrod, 2019:89).

For the purpose of this study, the following statistical methods were employed to analyse the data captured using IBM SPSS Statistics, version 26 and Mplus statistical software analysis. The statistical methods included in this research study are discussed in more detail in the following sections:

- Descriptive statistics (section 3.9.1)
- Inferential statistics (factor analysis) (section 3.9.2)
- Reliability analysis (section 3.9.3)
- Validity analysis (section 3.9.4)
- Correlation analysis (section 3.9.5)
- Hypotheses testing (section 3.9.6)
- Structural equation modelling (SEM) (section 3.9.7)

3.9.1 Descriptive statistics

Descriptive statistics are used to describe a dataset (Leedy & Ormrod, 2019:310). Descriptive statistics describe a dataset or a set of numbers that outline the characteristics of a specific variable or measure (Cooksey, 2020:61). The descriptive statistics report on what has been found within the dataset without any interference (Cohen *et al.*, 2018:725). Descriptive statistics are used to reduce and organise large numbers of data collections into a summary of statistics (McMillan & Schumacher, 2014:163). Descriptive statistics are advantageous as it is a straightforward process that can simply interpret results and it allows for more complex statistics to follow (Kaushik & Mathur, 2014:1189). The descriptive statistics represent the midpoint of the data, how the data is spread, and, within the dataset, how some variables are related to one another (Leedy & Ormrod, 2019:310). The types of descriptive statistics include: (i) the measure of central tendency, and (ii) the measure of dispersion (or variability) (Heumann *et al.*, 2016:48; Leedy & Ormrod, 2019:315). Another descriptive statistical measure is the measure of association. This measure entails a measurement of the correlation coefficient on two or more variables (Leedy & Ormrod, 2019:324).

The measure of central tendency presents the summarised numbers of a single value in such a way that it expresses the dataset's averages, middle score and the score that appears the most within the dataset (Creswell, 2012:184). According to Spiegel *et al.* (2001:15), within this measure, the three most frequently used measures are the mean, the median and the mode. Of these three,

the mean is considered the main measure for interpretation. Firstly, the mode is the simplest form within the measure of central tendency (Cleff, 2019:34). Leavy (2017:111) indicates that it is the value that frequently arises in the sample. However, Spiegel *et al.* (2001:17) assert that it is the probability of the value that occurs the most. The median measures the middle value or score (Leavy, 2017:111). Creswell (2012:185) states that the median needs to follow a rank-order before the scores are divided. According to Cohen *et al.* (2018:762), within the measure of central tendency, in order for it to be accurate and worthy, the data sample has to be preferably larger. Lastly, the mean indicates the datasets overall arithmetic average, with which a calculation is required to reach the average (Leedy & Ormrod, 2019:316). The mean can be calculated by adding up the total score and then dividing it by the dataset's number of scores (Heumann *et al.*, 2016:38). Furthermore, the mean is the most prominent measure of central tendency, as all participants' responses to items within a dataset are reported (Creswell, 2012:184).

Measure of dispersion entails how scores in a dataset are spread (Creswell, 2012:186). The measure of dispersion parameters are the range, inter-quartile range, the variance, and standard deviation (Cooksey, 2020:100). The range is the simplest form of the measure of dispersion, as it calculates the difference between the highest score and the lowest score of an item in a dataset (Cleff, 2019:50; Creswell, 2012:186). The inter-quartile range entails that the distribution of an item is equally divided into four parts. The third quartile and the first quartile are divided, which then entails that fifty percent of the scores are accounted for (Heumann *et al.*, 2016:49; Leedy & Ormrod, 2019:320). The variance is a very important measure of dispersion. Variance entails the variability of scores around the dataset's mean, and includes squared deviations (Cleff, 2019:103; Cooksey, 2020:51). Standard deviation is generally the most used measure of dispersion (Leavy, 2017:111), which delivers valuable information and indicates how a score relates or differs around the mean (Creswell, 2012:186; Mitchell & Jolley, 2010:224).

Within this study, descriptive statistics were used to determine the distribution of the data collected. The following section discusses the correlation analysis used within this study.

3.9.2 Inferential statistics

Inferential statistics are a procedure that makes inferences about an unknown population based upon the selected (known) sample from that population (Hair *et al.*, 2021:295). Inferential statistics make predictions or estimations regarding the characteristics of a large population through the collection of a proportionally smaller sample (Leedy & Ormrod, 2019:310). Inferential statistics include hypothesis testing and factor analysis. Inferential statistics draw conclusions based on probability, which includes the statistics of hypotheses testing and factor analysis (Cohen *et al.*, 2018:727). Hypotheses testing predicts in which way variables relate to one another by measuring the relationship among the variables (Leavy, 2017:69); whereas, factor analysis describes the

correlation among the variables by condensing the dataset (Mitchell & Jolley, 2010:46; Mooi *et al.*, 2017:266).

For the purpose of this study, the inferential statistics used both the factor analysis (§3.9.2.1) and hypothesis testing (§3.9.6). The following section discusses the factor analysis used within this study.

3.9.2.1 Factor analysis

Factor analysis is defined by Mooi *et al.* (2017:266) as a method that summarises a large set of data into smaller variables, which are called factors. More simply stated, factor analysis entails dividing many items on a questionnaire into a smaller number of groups (Mitchell & Jolley, 2010:46). According to Malhotra *et al.* (2017:709), a set of interdependent relationships that are analysed through a technique is referred to as factor analysis. This analysis assists in identifying the interrelationship between variables and aims to analyse the correlation of variables (items) by utilising the factors (Mooi *et al.*, 2017:266).

Two types of factor analysis exist: (i) confirmatory factor analysis (CFA) and (ii) exploratory factor analysis (EFA) (Cohen *et al.*, 2018:818). CFA is a compound technique used to test specific theories of the structure regarding the variables, and is used when relationships tend to be tested where these factors and items are meant to be known (Orçan, 2018:414; Shrestha, 2021:4); whereas EFA entails revealing the factors and items belonging to a specific factor, and is used to collect information on the interrelationships among variables within the beginning stages of the research study (Mooi *et al.*, 2017:266; Shrestha, 2021:4).

Within factor analysis, the statistics of the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure are associated with the analysis (Malhotra *et al.*, 2017:711-712). Bartlett's test of sphericity entails the examination of variables by testing and confirming whether the variables correlate (between hypotheses) (Cleff, 2019:434; Malhotra *et al.*, 2017:711). Bartlett's test of sphericity should have a statistically significant outcome at $p < 0.05$ (Cohen *et al.*, 2018:820). The KMO measures of sampling adequacy is used to indicate whether other variables within a dataset can be used to describe the correlation between the variables (Mooi *et al.*, 2017:272). The KMO is indicated as a measure between 0 and 1 (Cleff, 2019:435), and, according to Sreejesh *et al.* (2014:217), the KMO is acceptable when it is greater than 0.60. A KMO that is greater than 0.9 is viewed as highly acceptable and can be seen as outstanding sampling adequacy.

Within factor analysis, an appropriate factor extraction method must be chosen. There are two frequently used methods: principal component analysis and common factor analysis (Malhotra *et al.*, 2017:717). Principal component analysis produces components and is a technique that

reduces data or interrelationships among original variables (Sreejesh *et al.*, 2014:217; Yong & Pearce, 2013:84). Furthermore, the principal component analysis extraction explains and considers all the variables (Mooi *et al.*, 2017:273). Common factor analysis, also called principal axis factoring, entails that the factors are based on common variance and that communalities are placed in the correlation matrix (Malhotra *et al.*, 2017:266). The focus of the common factor analysis is on explaining the variable correlation through the factors (Mooi *et al.*, 2017).

In order to determine the number of factors, several techniques exist. These include the eigenvalue, the *priori* measure, and a screen plot (Malhotra *et al.*, 2017:717-718). The eigenvalue, according to Cleff (2019:436), measures variances between factors and the sum factor of squared correlations of the variables. Eigenvalue indicates the strength of a factor (Bordens & Abbott, 2018:478). Factors that demonstrate an eigenvalue that is greater than 1 are of interest, whereas any other eigenvalue, smaller than 1, is considered not of interest (Cohen *et al.*, 2018:820). The *priori* determination technique is somewhat formed on prior knowledge of a research study, and allows the researcher to assume the number of factors to be selected or that would occur (Malhotra *et al.*, 2017:717). A screen plot represents the plot of eigenvalues versus the factors, typically on a graph (Sreejesh *et al.*, 2014:218). According to Mooi *et al.* (2017:278), the scree plot generally shows the correct number of factors through a clear break.

Within the factor analysis, the factor matrix is an important element. On the extracted factors, the factor matrix encompasses the factor loadings (Sreejesh *et al.*, 2014:227). This matrix holds the coefficients that indicate the variables regarding the factors (Malhotra *et al.*, 2017:719). In terms of the researcher, the factor matrix allows for the identification of the variable load towards the factors (Cohen *et al.*, 2018:828). Factors can be difficult to explain, but through rotation, which entails that the factor matrix is altered, it ultimately allows for an easier interpretation (Malhotra *et al.*, 2017:719). According to Bordens and Abbott (2018:479), the two types of rotations are orthogonal and oblique rotation. Firstly, orthogonal rotation entails that factors rotate in a way that maintains the axes at the correct angles and the outcomes are solutions that are easy to explain (Malhotra *et al.*, 2017:719; Pallant, 2020:190). Furthermore, the varimax procedure is a prominent type of orthogonal rotation that entails that the entire system is rotated from the original point while maintaining the relations among the variables (Cleff, 2019:439). The factors with high loadings in the varimax procedure are minimised and enhance the interpretation of the factors (Malhotra *et al.*, 2017:719). Secondly, oblique rotation entails change by not maintaining the axes at the correct angle, and makes the assumption of correlation that exists between measures and factors (Bordens & Abbott, 2018:479; Malhotra *et al.*, 2017:720).

This research study applied the exploratory factor analysis (EFA), which included Bartlett's test of sphericity and a Kaiser-Meyer-Olkin (KMO) measure.

The following section describes the reliability analysis as research evaluation.

3.9.3 Reliability analysis

The reliability analysis is the consistency of scales when measures are made repetitively (Malhotra *et al.*, 2017:359). Within research studies, the reliability links to the consistency of the outcome over a period in time (Shukla, 2019:80). The reliability analysis is not only a predicting indicator, but also measures the accuracy of the measurement instrument used in a study (Ogidi, 2014:42). The reliability analysis estimation can be measured through the use of three approaches: (i) internal consistency reliability, (ii) test-retest reliability, and (iii) alternative form reliability (Shukla, 2019:80).

Internal consistency reliability tests whether the items in a scale are equivalent (Mohajan, 2017:69). Moreover, Hair *et al.* (2021:178) indicate that the correlation between the individual items of a construct is the internal consistency reliability. Internal consistency can measure the responses collected across multiple items in the research study by using two common measurement techniques. These techniques include the split-half correlation and the Cronbach's alpha (Price *et al.*, 2015). The split-half correlation divides the data collected into two halves and then uses simple correlations to measure the consistency by giving a score in each half (Duke *et al.*, 2020:94). When correlation scores occur higher, internal consistency is assumed (Mooi *et al.*, 2017:288). A problem that occurs when using the split-half correlation technique is that the results will depend on the manner in which the items are split, whether randomly, even numbered or odd numbered (Hair *et al.*, 2021:410; Malhotra *et al.*, 2017:360). Therefore, to overcome this problem, the Cronbach's alpha or the coefficient alpha is rather used (Malhotra *et al.*, 2017:360). The Cronbach's alpha measures not only the strength of the consistency, but it also evaluates the reliability of the internal consistency of multiple-items (Kalpande & Toke, 2022:7). In the Cronbach's alpha, the alpha is used to measure the responses of items and the extent to which they correlate with one another (Vaske *et al.*, 2017:165).

Test-retest reliability, also known as stability measurement, is when a researcher uses the exact same data collection instrument to obtain repeated measures from the same respondents over time (Mooi *et al.*, 2017:407). When these two data collection instruments are being measured, it is done through the correlation coefficient. The higher the correlation appears, the greater the reliability of the two measures is (Malhotra *et al.*, 2017:359). The test-retest reliability is assessed through the variables in the data collection instrument that are stable over time, and it is expected that these two data samples will have a similar outcome in the prolonged process (Mooi *et al.*, 2017:41).

Alternative form reliability requires that two different data collection instruments with the same number of items or scales are constructed in both instruments (Sürücü & Maslakci, 2020:2709). This should be done to measure the same set of respondents (Sürücü & Maslakci, 2020:2709). Sreejesh *et al.* (2014:115) state that the two measured scales must be similar in nature and the number of questions must be the same across both instruments, but the questions asked must be different across two data collection instruments. The consistency is evaluated through the two data collection instruments, and if correlation between the two assessments is high, alternative form reliability is assumed (Mohajan, 2017:69).

This research study's reliability analysis attained consistency through the Cronbach's alpha measure. The Cronbach's alpha measure was calculated for each factor identified through the EFA: perceived ease of use and usefulness (PEU&U), pandemic fear (PF), privacy and trust (P&T), and e-loyalty (E-L). Within the following section, the validity analysis is examined.

3.9.4 Validity analysis

Validity analysis in a research study refers to a test that is done in order to measure the accuracy of what it intends to measure (Mooi *et al.*, 2017:38). Validity is considered as the extent of the true differences among the objects being observed in the measuring instrument (Hair *et al.*, 2021:132; Malhotra *et al.*, 2017:361). The validity analysis interprets the data derived from the measuring instrument in a purposeful and appropriate way (Sürücü & Maslakci, 2020:2696). Assessing validity can be done through three different validity types: (i) construct validity, (ii) content validity, and (iii) criterion validity (Taherdoost, 2016a:28).

Construct validity describes what the constructs in a research study are measuring and how effectively these constructs (which can be a behaviour or concept) translate and connect into the reality (Malhotra *et al.*, 2017:362). Within research studies, construct validity is a popular validity analysis that is based on the variables' logical associations with one another (Sürücü & Maslakci, 2020:2701). Construct validity can be analysed through convergent validity measures, discriminant validity measures, and nomological validity (Malhotra *et al.*, 2017:362). Convergent validity refers to the different constructs that correlate with one another and that intend to measure similar concepts across the research study (Sreejesh *et al.*, 2014:118). Discriminant validity analyses the different constructs and the shortfalls or errors that occur between the constructs within the research study (Taherdoost, 2016a:31). Nomological validity indicates the degree to which the different constructs that relate to one another are connected within the research study (Mooi *et al.*, 2017:40).

Content validity's motive is to minimise the error that might exist in the data collection instrument (Shrotryia & Dhanda, 2019:2). Thereafter, the probability of construct validity can be increased

(Shrotryia & Dhanda, 2019:2). Content validity includes the scaled items to determine whether the research study's theoretical and practical features are considered and reflected (Pandey & Chawla, 2016:340). The evaluation of content validity can be done by a professional in the field or by the researcher, in order to examine how effective the content of the scaled items represents and covers what is being measured in the research study (Malhotra *et al.*, 2017:362).

Criterion validity is the degree of relation between a measure and the outcome, along with the effective measure of the predicted outcome between one measure and another measure (Taherdoost, 2016a:32). Criterion validity can be analysed by two types, i.e. predictive validity and concurrent validity (Sreejesh *et al.*, 2014:117). Predictive validity highly correlates with the efficiency of the data collected on a scale by the researcher at a point in time and how a scale can predict the future criterion validity at a time to come (Malhotra *et al.*, 2017:362). Concurrent validity is the correlation between the data on a scale and the criterion validity both collected and evaluated at the same time (Sreejesh *et al.*, 2014:117).

In this study, the validity analysis was done not only to ensure that the online questionnaire was validated, but also to evidently show a link between the factors. The following section discusses the correlation analysis used for this study.

3.9.5 Correlation analysis

The correlation analysis expresses the strength of the linear association (relationship) between two or more variables (Pallant, 2020:135). Leedy and Ormrod (2019) indicate that correlation is a statistical analysis that indicates the association between variables, which results in a correlation coefficient. The correlation coefficient indicates the variable relationship in terms of a number between -1.00 and +1.00 (Mitchell & Jolley, 2010:623). According to Mooi *et al.* (2017:117), the correlation coefficient indicated as -1 entails a perfect negative, +1 a perfect positive, and 0 indicates that there is no relationship that exists. Furthermore, variables with a negative correlation are prone to go in the opposite direction, whereas the variables with a positive correlation are prone to set out in the same direction (Mitchell & Jolley, 2010:623).

Collinearity arises between two highly correlated independent variables; however, essentially, at last it is required that little to no collinearity should come about (Mooi *et al.*, 2017:221). In such instances where collinearity occurs, one or more of the highly correlated variables can be removed without damaging any important aspects of the research (Cohen *et al.*, 2018:497).

Within this research study, the correlation analysis was done through the Spearman's correlation coefficient, measuring two variables' relationships by means of direction as well as strength (Leedy & Ormrod, 2019:100; Mooi *et al.*, 2017:119).

3.9.6 Hypothesis testing

A quantitative statement formulated regarding the overall population value can be seen as the hypotheses (Emmert-Streib & Dehmer, 2019:946). Hypotheses are an important approach to the research study's problem or question that exists, while the hypotheses can provide possible answers to these questions (Malhotra *et al.*, 2017:54). Hypotheses testing in a research study makes the question that exists clearer and is formulated through a statement about an existing relationship between one or more variables that is tested through the empirical data collected in the process (Sreejesh *et al.*, 2014:17).

In order to formulate the hypotheses for a research study, two types of hypotheses must be considered for testing, firstly the null hypotheses (H_0) and secondly the alternative hypotheses (H_a) (Mooi *et al.*, 2017:156).

Table 3-6: The two types of hypotheses

Type of hypothesis	Symbol	Context	Example
Null hypothesis	H_0	No relationship or difference exists	COVID-19 did not impact consumers' online shopping behaviour
Alternative hypothesis	H_a	A relationship or difference does exist	COVID-19 impacted consumers' online shopping behaviour

Source: Adopted from Bergin (2018:22).

The null hypothesis statement suggests that there is no difference, effect or relationship, meaning that if the null hypothesis is not rejected, it would make no changes in hypotheses being tested (Emmert-Streib & Dehmer, 2019:946). By contrast, the alternative hypothesis statement indicates that there is a difference, an effect or some kind of relationship that does exist, meaning that when the alternative hypothesis is accepted, there will be a change in the hypotheses being tested by changes in opinions or actions (Malhotra *et al.*, 2017:565).

For this research study, the following six hypotheses were tested:

H_01 : There is no positive significant relationship between ease of use and usefulness on pandemic fear

H_a1 : There is a positive significant relationship between ease of use and usefulness on pandemic fear.

H₀2: There is no positive significant relationship between ease of use and usefulness on privacy and trust.

H_a2: There is a positive significant relationship between perceived ease of use and usefulness on privacy and trust.

H₀3: There is no positive significant relationship between perceived ease of use and usefulness on e-loyalty.

H_a3: There is a positive significant relationship between perceived ease of use and usefulness on e-loyalty.

H₀4: There is no positive significant relationship between pandemic fear on privacy and trust.

H_a4: There is a positive significant relationship between pandemic fear on privacy and trust.

H₀5: There is no positive significant relationship between pandemic fear on e-loyalty.

H_a5: There is a positive significant relationship between pandemic fear on e-loyalty.

H₀6: There is no positive significant relationship between privacy and trust on e-loyalty.

H_a6: There is a positive significant relationship between privacy and trust on e-loyalty.

The hypotheses testing in this research study was formulated to investigate whether there is a relationship between the factors of this research study: pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty.

3.9.7 Structural equation modelling (SEM)

In research projects, a structural equation modelling (SEM) analysis is utilised to test the measurement and structural theories (Phakiti *et al.*, 2018:464). Additionally, a SEM analysis explores if there are any direct, indirect, causal, or linear links between the variables (Phakiti *et al.*, 2018:459). As SEM is very sensitive to sample size, it is essential to consider the number of respondents needed (Hair *et al.*, 2017:46). Tarka (2018:321) claims that a sample size of 200 to 400 is appropriate for a SEM. As such, the complex relationships between the factors or constructs included in the research study are then illustrated by SEM diagrams (Phakiti *et al.*, 2018:465). A good model fit is essential to obtain relevant data using SEM (Stone, 2021:1). A literature review is typically the first step in a good SEM to generate construct definitions for the research project (Hair *et al.*, 2017:161). Chapter 2 of this research study provides a detailed overview of the literature used to determine the constructs under investigation.

Furthermore, the validity and reliability of the measurement model should also be assessed (Streiner, 2006:322). The reliability of this research study was assessed using an EFA. However, the constructs indicated by the EFA were validated by Cronbach's alpha measurement reliability, and as a result, the structural model was examined using a SEM examination. For the purpose of this research study, SEM was conducted to determine the effect of the constructs (perceived ease of use and usefulness, privacy and trust, and pandemic fear) on consumers' level of e-loyalty toward online stores after the COVID-19 pandemic. This section, section 3.9, indicated the statistical analysis used for this research study by explaining in detail what the different analyses entail. The following section, section 3.10, indicates the synopsis of the research and methodology of this research study indicated in Chapter 3.

3.10 CONCLUSION

This chapter, Chapter 3: Research design and methodology, described and clarified both the empirical part and the methods employed for this research study.

This research study followed a radical structuralist worldview that is rooted in an objective view and sociology of regulation, external to the researcher's mind. The study made use of a descriptive research design, with a quantitative research approach. The target population entailed those individuals who are 18 years of age and older, who engaged in online shopping during the period of the COVID-19 pandemic.

A structured online questionnaire was used as data collection instrument; respondents self-administered the online questionnaire when capturing the data. The online questionnaire was advertised on the social media platforms, Instagram and Facebook, meaning that the sampling method utilised for this research study, a non-probability snowball sampling method, entailed that a respondent who took part in the online questionnaire was asked to share the online questionnaire with others similar to them, and therefore no limitations were placed on the sharing options of the online questionnaire link. Furthermore, the online questionnaire was well structured and included all relevant information respondents needed in order to participate in this research study.

The online questionnaire included a pre-section asking respondents to inform their declaration of participation, and a screening question. Furthermore, two sections were included, entailing gathering data on consumers' online buying behaviour and with reference to the six constructs: pandemic fear, online shopping intentions, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty, during the COVID-19 pandemic.

This research study included the statistical analysis of an exploratory factor analysis, the reliability and validity analysis, descriptive statistics, correlation analysis and the testing of hypotheses.

The following chapter, Chapter 4, presents the results of the empirical and statistical analyses for the data captured on IBM SPSS Statistics, version 26 and Mplus statistical software analysis. Furthermore, an interpretation and explanation of the data were reported on for this research study.

CHAPTER 4

RESULTS OF THE STUDY

This chapter discusses and provides a report on the empirical study's results, as outlined in Chapter 1 of the thesis. The relevant empirical objectives include:

- Determine consumers' current online shopping behaviour with reference to purchasing online during the COVID-19 pandemic and the types of products purchased online.
- Determine consumers' online shopping behaviour during the COVID-19 pandemic with specific reference to the influence of pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty.
- Determine the relationship between pandemic fear, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty influencing consumers' online shopping behaviour during the COVID-19 pandemic.
- Determine the influence of perceived ease of use and usefulness, privacy and trust, and pandemic fear on e-loyalty.

4.1 INTRODUCTION

This chapter, Chapter 4, discusses the results of the online questionnaire used to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour.

The first empirical objective of the study, i.e. *to determine consumers' current online shopping behaviour with reference to purchasing online during the COVID-19 pandemic and the types of products purchased online*, is addressed through Section A of the questionnaire. Section A focused on the online shopping behaviour of the respondents, and the results are reported on by means of descriptive statistics, specifically reporting on frequencies and percentages of the items included in the questionnaire (§4.2).

Section B of the questionnaire, firstly, addresses the second empirical objective of the study. This section aims to determine consumers' online shopping behaviour during the COVID-19 pandemic with specific reference to the influence of pandemic fear, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty. The factors included in the questionnaire are reported on in section 4.3 of this chapter by means of descriptive statistics, by specifying the frequencies and percentages in tabulated format (§4.3.1). Each factor is reported on in a

sub-section: pandemic fear (§4.3.1.1), online shopping intentions (§4.3.1.2), perceived ease of use (§4.3.1.3), perceived usefulness (§4.3.1.4), privacy and trust (§4.3.1.5), and e-loyalty (§4.3.1.6). According to Mishra *et al.* (2019:67) descriptive statistics highlight the fundamental aspects of the research investigation in a summarised format.

The factor analysis expressed the variance between variables that have the most commonalities within this research study of determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour (Cohen *et al.*, 2018:818). The factor loadings indicated the correlation between variables and the factors (Mooi *et al.*, 2017:280). Furthermore, this section reports on the eigenvalues that show the variance amount recorded by the factor; in this case, the value is larger than 1 (Cohen *et al.*, 2018:820). This section also reported the correlation matrix by making use of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity (Cohen *et al.*, 2018:820; Malhotra *et al.*, 2017:712). This section finally reported on Cronbach's alpha that tests the reliability of the internal consistency among the items (Kalpande & Toke, 2022:7).

Furthermore, the third empirical objective (to determine the relationship between pandemic fear, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty influencing consumers' online shopping behaviour during the COVID-19 pandemic) is also addressed through section B of the questionnaire. Spearman's rank order correlation analysis (§4.3.3) was carried out to report on the relationship between the factors and to test the proposed hypotheses. Hypothesis testing is done to test the probability of a relationship that exists between variables, which can be accepted or rejected (Cleff, 2019:257; Leavy, 2017:167).

The associations between variables are displayed and explained in the correlation table (§4.3.3), together with the mean values, standard deviation, p-values and effect sizes that indicate the relationship between the factors (Bordens & Abbott, 2018:258; Sheskin, 2010:264). The analysis of the data provided in the afore-mentioned sections is furthermore illustrated in a figure (Figure 4-1) to indicate the important relationships between the factors (§4.3.4).

Chapter 4 concludes with a summary of the primary results of consumers' online shopping behaviour during the COVID-19 pandemic.

4.2 DEMOGRAPHIC PROFILE OF CONSUMERS' WHO ENGAGED IN ONLINE SHOPPING DURING THE COVID-19 PANDEMIC

As mentioned in the introduction section of Chapter 4 (§4.1), this section addresses the first empirical objective of the research study, namely to determine consumers' current online

shopping behaviour with reference to purchasing online during the COVID-19 pandemic and the types of products purchased online. However, before respondents were asked to continue with completing Section A of the online questionnaire, two screening questions were included to ensure that the respondents completing the questionnaire fall within the sample frame of the study. The sample frame of this study (Chapter 3) was individuals 18 years of age and older who made use of online shopping during the COVID-19 pandemic. A total number of 280 questionnaires were completed and useful for inclusion in the statistical analysis of the data. Table 4-1 provides an overview of the responses to the two screening questions with reference to the frequency and percentage.

Table 4-1: Frequencies and percentages of screening questions

Screening Question	Item	f	%
Have you ever purchased any products or services from an online store or app during the COVID-19 pandemic?	Yes	280	100.0
	No	0	0
Please confirm that you are 18 years of age, or older by selecting the applicable option below.	I confirm that I am 18 or older	280	100.0
	I am younger than 18	0	0

From Table 4-1 it is clear that from the 280 questionnaires that were completed and useful for inclusion for data analysis, 100% of the respondents indicated that they are 18 years of age or older, and that they have purchased products or services from an online store or application during the COVID-19 pandemic.

To report on the online shopping behaviour of consumers during the COVID-19 pandemic in the form of a demographic profile of the sample group with specific reference to the type of items purchased online during the COVID-19 pandemic descriptive statistics is tabulated in Table 4-2.

Table 4-2: Frequencies and percentages Section A's descriptive statistics

Question	Item	f	%
Please indicate the type of items you purchase online. (Please indicate all applicable options)	Sport (event or equipment)	114	40.7
	Traveling (flights, accommodation)	147	52.5
	Fashion (event, clothing or shoes)	180	64.3
	Health (event or products)	136	48.6
	Beauty (event or products)	125	44.6
	Food	204	72.9

Question	Item	f	%
	Electronic devices	161	57.5
	High-tech items (cars)	33	11.8
	Other	27	9.6

Section A of the questionnaire aimed to determine which items consumers purchased online during the COVID-19 pandemic. From Table 4-2 it is clear that the majority of respondents (72.9%) indicated that they purchased food items, with 64.3% of respondents purchasing fashion items ranging from a ticket to a fashion event, clothing or shoes. Furthermore, it is also clear that 57.5% of respondents purchased electronic devices online during the COVID-19 pandemic. Respondents were also asked to indicate whether there were any other products or services that they purchased online during the COVID-19 pandemic that were not listed in the options included for this question in the questionnaire. More than 96% of the respondents indicated that they purchased other items that were not listed. Respondents who selected “other” (9.6%) were asked to specify the items that they purchased that were not included in the list. These items included online courses, fitness programmes, Lotto tickets, streaming services (both Showmax and Netflix), household and cleaning products, camping equipment, pet products, children’s toys, books, art material, electronic parts, 3D printer filament, furniture, home décor and accessories, office supplies, medicine, therapeutic tools, and e-cigarettes.

The following section, section 4.3, provides a discussion on the results of Section B of the questionnaire, namely the influence of the COVID-19 pandemic on consumers’ online shopping behaviour.

4.3 THE INFLUENCE OF THE COVID-19 PANDEMIC ON CONSUMERS’ ONLINE SHOPPING BEHAVIOUR

This section addresses the second empirical objective of the study – to determine consumers’ online shopping behaviour during the COVID-19 pandemic with specific reference to the influence of pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty. This is based on Section B of the questionnaire (items B1 - B32). Reporting of the results will be divided into two sub-sections. In the first sub-section (§4.3.1), the descriptive statistics will be elaborated on, whereafter the results of the exploratory factor analysis will be discussed in sub-section 4.3.2.

4.3.1 Descriptive statistics of consumers' online shopping behaviour during the COVID-19 pandemic

The descriptive statistics of each of the six constructs included in this research study are discussed in this section. The descriptive statistics for pandemic fear (§4.3.1.1), online shopping intention (§4.3.1.2), perceived ease of use (§4.3.1.3), perceived usefulness (§4.3.1.4), privacy and trust (§4.3.1.5), and e-loyalty (§4.3.1.6), will each be tabulated to report on the frequencies and percentages of the items included to measure the specific construct.

4.3.1.1 Descriptive statistics of pandemic fear

The frequencies and percentages of the items included in the questionnaire to measure pandemic fear (items B1-B9) are included in Table 4-3 below.

Table 4-3: Frequencies and percentages of pandemic fear

Scale Item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
B1	During the COVID-19 pandemic, I shopped online because I felt afraid of the pandemic.	15	5.4	25	8.9	61	21.8	179	63.9
B2	During the COVID-19 pandemic, I shopped online because I felt panic upon facing the pandemic in a physical store.	22	7.9	21	7.5	69	24.6	168	60.0
B3	During the COVID-19 pandemic, I shopped online, because I feared the virus.	16	5.7	27	9.6	66	23.6	171	61.1
B4	I shop online because I fear for the health of close ones, I might be in contact with during the COVID-19 pandemic.	8	2.9	18	6.4	69	24.6	185	66.1
B5	I shop online because I have a concern of limited healthcare during the COVID-19 pandemic.	20	7.1	26	9.3	56	20.0	178	63.6
B6	I shop online because I fear for my own health during the COVID-19 pandemic.	20	7.1	15	5.4	66	23.6	179	63.9
B7	I shop online because I fear the impact the COVID-19 pandemic has on the future local economic conditions.	13	4.6	24	8.6	71	25.4	172	61.4
B8	I shop online because I fear that other individuals do not obey the rules and restrictions.	13	4.6	15	5.4	66	23.6	186	66.4
B9	I shop online because I fear the limitations placed on my movement because of the restrictions in place to curb the spread of the COVID-19 pandemic.	13	4.6	16	5.7	76	27.1	175	62.5

f = frequencies; % = percentages

It is believed that the fear of the COVID-19 pandemic, as it is highly contagious, influenced consumers' online shopping behaviour (Tran, 2021:2). From Table 4-3 it is clear that 66.4% (item B8) was the highest response item of pandemic fear. The most important reason why respondents shopped online during the COVID-19 pandemic was because they feared that other individuals do not obey the rules and regulations. More than sixty percent (66.1%) of respondents strongly agreed that they shopped online during the COVID-19 pandemic because they feared for the health of close ones, they might have been in contact with during this time (item B4). More than 63% of respondents also strongly agreed to shopping online because they were afraid of the COVID-19 pandemic (item B1), and 63.9% indicated that they fear for their own health during this pandemic, and therefore shop online (item B6). From the above it is clear that consumers felt afraid and feared this pandemic as their greatest concern was the health of their loved ones. Furthermore, they also indicated that they shopped online as they feared that other individuals did not obey the rules and regulations put in place to curb the spread of the virus.

4.3.1.2 Descriptive statistics of online shopping intentions

The items included in the questionnaire to measure online shopping intentions (items B10-B13) are tabulated in Table 4-4.

Table 4-4: Frequencies and percentages of online shopping intentions

Scale Items		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
B10	I enjoy shopping online during the COVID-19 pandemic	0	0	6	2.1	53	18.9	221	78.9
B11	I shop online during the COVID-19 pandemic to avoid a physical store environment	8	2.9	12	4.3	56	20.0	204	72.9
B12	I shop online during the COVID-19 pandemic because of the wide variety of goods and services offered by online stores.	2	0.7	9	3.2	52	18.6	217	77.5
B13	I recommend online shopping during the COVID-19 pandemic to my friends.	1	0.4	7	2.5	48	17.1	224	80.0

f = frequencies; % = percentages

Items B10 to B13 in the questionnaire determined the influence of shopping intentions on consumers' online shopping behaviour during the COVID-19 pandemic. From Table 4-4 it is clear that 80% (item B13) of respondents strongly agreed that they recommend online shopping during the COVID-19 pandemic to their friends, while 78.9% (item B10) strongly agreed that they enjoyed shopping online during the pandemic. The respondents also

indicated they strongly agree that they shopped online during the COVID-19 pandemic because of the wide variety of goods and services offered by online stores (77.5%). Furthermore, 72.9% of respondents strongly agreed to shopping online because they avoided a physical store environment during the pandemic. Therefore, it is evident consumers will recommend online shopping during the pandemic, as they enjoy it and it offers access to a wide variety of products and services.

4.3.1.3 Descriptive statistics of Perceived ease of use

Table 4-5 lists the items from the questionnaire used to gauge respondents' perceived ease of use of online shopping (items B14–B18).

Table 4-5: Frequencies and percentages of perceived ease of use

Scale Item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
B14	Online shopping during the COVID-19 pandemic is easy to use.	0	0	3	1.1	45	16.1	232	82.9
B15	It is easy to understand online shopping websites when I shop online during the COVID-19 pandemic.	0	0	6	2.1	44	15.7	230	82.1
B16	It is easy to master online shopping during the COVID-19 pandemic.	0	0	4	1.4	44	15.7	232	82.9
B17	Online shopping interactions during the COVID-19 pandemic are easy and flexible.	1	0.4	5	1.8	50	17.9	224	80.0
B18	Online shopping during the COVID-19 pandemic is clear and understandable.	0	0	10	3.6	43	15.4	227	81.1

f = frequencies; % = percentages

Items B14 to B18 in the questionnaire measured the perceived ease of use of online shopping sites during the COVID-19 pandemic. From Table 4-5, it is clear that the majority of respondents indicated that they shopped online during the COVID-19 pandemic as it was easy to use (82.9%). Likewise, 82.9% also strongly agreed that it was easy to master online shopping during the COVID-19 pandemic, whereas 82.1% (item B15) of respondents strongly agreed that it was easy to understand shopping websites when they shopped online during the COVID-19 pandemic. Furthermore, 81.1% (item B18) of respondents strongly agreed to that online shopping during the COVID-19 pandemic was clear and understandable. It is clear from the above that consumers perceived online shopping as easy to use as well as easy to master during the COVID-19 pandemic. Consumers also found online websites easy to

understand, and they found that online shopping was not only easy to use, but also easily understandable.

4.3.1.4 Descriptive statistics of perceived usefulness

The following table, Table 4-6 indicates the descriptive statistics of perceived usefulness (items B19 to B23) as recorded from the online questionnaire.

Table 4-6: Frequencies and percentages of perceived usefulness

Scale Item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
B19	Online shopping is useful for purchasing items during the COVID-19 pandemic.	0	0	2	0.7	45	16.1	233	83.2
B20	Online shopping is useful during the COVID-19 pandemic because it is easy to search for items.	1	0.4	6	2.1	49	17.5	224	80.0
B21	Online shopping during the COVID-19 pandemic is useful because it improves my performance when searching for and purchasing items.	0	0	14	5.0	60	21.4	206	73.6
B22	Online shopping during the COVID-19 pandemic is useful because it increases the variety of shopping items I am exposed to in the online store.	0	0	12	4.3	45	16.1	223	79.6
B23	Online shopping during the COVID-19 pandemic is useful because it enhances my effectiveness when searching for and purchasing items.	1	0.4	6	2.1	61	21.8	212	75.7

f = frequencies; % = percentages

With regard to consumers' perceived usefulness of online shopping sites, items B19 to B23 were included to determine the aforementioned. From Table 4-6, it is clear that 83.2% (item B19) of respondents strongly agreed that online shopping is useful for purchasing items, and 80% (item B20) also strongly agreed that online shopping is useful during the COVID-19 pandemic, as it is easy to search for items. Furthermore, 79.6% (item B22) of respondents strongly agreed that online shopping is useful during the COVID-19 pandemic because it increases the variety of shopping items they were exposed to in the online store. This suggests that consumers perceive online shopping as useful. It was found that consumers perceive online shopping during the COVID-19 as highly useful for purchasing items, and easy to search for the items.

4.3.1.5 Descriptive statistics of privacy and trust

The frequencies and percentages of privacy and trust (items B24 to B27) recorded from the online questionnaire are reported in Table 4-7.

Table 4-7: Frequencies and percentages of privacy and trust

Scaled Items		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
B24	When shopping online during the COVID-19 pandemic, I trust that my personal information is kept private by the online store.	8	2.9	43	15.4	89	31.8	140	50.0
B25	When shopping online during the COVID-19 pandemic, I trust that any third parties used by the online store protects me against any possible risks (such as personal information leakage, credit card fraud, etc.) if something goes wrong with my online purchase.	9	3.2	48	17.1	82	29.3	141	50.4
B26	When shopping online during the COVID-19 pandemic, I am confident that online shopping stores keep my personal and banking information private.	7	2.5	44	15.7	90	32.1	139	49.6
B27	When shopping online during the COVID-19 pandemic, I trust that any other parties used by the online store have the responsibility to keep my personal and banking information private.	7	2.5	40	14.3	93	33.2	140	50.0

f = frequencies; % = percentages

Items B24 to B27 measured consumers' perceived privacy and trust as an influence on their online shopping behaviour during the COVID-19 pandemic. From Table 4-7, it is clear that, compared to the previous factors, much lower percentages of respondents strongly agreed with the statements in the questionnaire. More than 50.4% of respondents indicated that they strongly agreed that they trusted that third parties used by the online store protect them against any possible risks when shopping online during the COVID-19 pandemic. Likewise, an even distribution of 50% of respondents strongly agreed to trusting online stores to keep their personal information private (item B24), and 50% strongly agreed to trusting any other parties used by the online store having the responsibility to keep their personal and banking information private (item B27). Furthermore, 49.6% (item B26) of respondents strongly agreed having confidence in online shopping stores to keep their personal and banking information private, when shopping online during the COVID-19 pandemic. From the results it is clear that

consumers shopped online during the COVID-19 pandemic; however, compared to the other factors influencing their online shopping behaviour, their level of trust was lower.

4.3.1.6 Descriptive statistics of e-loyalty

The descriptive statistics, more specifically the frequencies and percentages, of e-loyalty (items B28 to B32) recorded from the online questionnaire are reported on in Table 4-8.

Table 4-8: Frequencies and percentages of e-loyalty

Scale Item		Strongly disagree		Disagree		Agree		Strongly agree	
		f	%	f	%	f	%	f	%
B28	I will continue to purchase items from online stores during the COVID-19 pandemic.	0	0	1	0.4	58	20.7	221	78.9
B29	Online shopping will be my preferred shopping method after the COVID-19 pandemic.	4	1.4	29	10.4	57	20.4	190	67.9
B30	I will shop online more often after the COVID-19 pandemic.	1	0.4	10	3.6	60	21.4	209	74.6
B31	I will recommend online shopping to other individuals after the COVID-19 pandemic.	0	0	3	1.1	57	20.4	220	78.6
B32	I will positively report things about online shopping to other people after the COVID-19 pandemic.	0	0	2	0.7	64	22.9	214	76.4

f = frequencies; % = percentages

To determine whether consumers will continue to be loyal towards online stores after the COVID-19 pandemic, items B28 to B232 were included in the questionnaire to determine consumers' level of e-loyalty. It is clear that 78.9% (item B28) of respondents strongly agreed that they would continue to purchase items from online stores during the COVID-19 pandemic, and 78.6% (item B31) strongly agreed to recommending online shopping to other individuals after the COVID-19 pandemic. Furthermore, it was found that 76.4% (item B32) of respondents strongly agreed to positively reporting things about online shopping to other individuals after the COVID-19 pandemic, and 74.6% (item B30) strongly agreed that they would shop online more often after the COVID-19 pandemic. From Table 4-8 it is therefore clear that consumers would continue to purchase items, and shop online more often both during and after the COVID-19 pandemic. They would recommend online shopping to other individuals and they would report positive things about online shopping to other individuals.

4.3.2 Factor analysis of consumers' online shopping behaviour during the COVID-19 pandemic

The factor analysis of consumers' online shopping behaviour during the COVID-19 pandemic was done through the exploratory factor analysis (EFA), which displays the factor and the items that form part of a specific factor (Shrestha, 2021:4). This analysis not only determines the number of factors, but allows the EFA procedure to shape these factors (Mooi *et al.*, 2017:287).

In order to assess the suitability of principal component analysis for this study, the Kaiser-Meyer-Olkin measure (KMO) of sampling adequacy and Bartlett's test of sphericity were examined. This approach essentially involves data reduction to create a correlation matrix for the variables influencing customers' online shopping behaviour during the COVID-19 pandemic (Cohen *et al.*, 2018:827; Malhotra *et al.*, 2017:712).

The KMO measure of sampling adequacy is used to indicate the relationship between variables and measures the data adequacy for a factor analysis (Mooi *et al.*, 2017:398). The factor analysis is acceptable if the KMO measure of sampling adequacy is above (0.50), while a higher value between 0.50 and 1.0 is recommended (Malhotra *et al.*, 2017:712). The correlation between variables is statistically significant at $p < 0.05$, according to Bartlett's test of sphericity (Cohen *et al.*, 2018:820). The following table, Table 4-9, indicates the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity for this research study.

Table 4-9: KMO and Bartlett's test results

KMO & Bartlett's test		
KMO measure of sampling adequacy		0.932
Bartlett's test of sphericity	Approx chi-square	9439.996
	df	496
	Sig.	0.000

KMO = Kaiser-Meyer-Olkin

For this research study, the Kaiser-Meyer-Olkin measure of sampling adequacy is 0.932, and Bartlett's test of sphericity is $p < 0.05$ at 0.000, which indicate that the KMO measure is adequate as it is higher than the acceptable sampling adequacy of 0.5, and Bartlett's test is statistically significant, as it is at smaller than $p < 0.005$ (Cohen *et al.*, 2018:827; Malhotra *et al.*, 2017:712). The two measures, Kaiser-Meyer-Olkin and Bartlett's test, for this research study, indicate that it is safe to continue, and factorisation is suitable for the data.

Initially, based on the 32 items included in the questionnaire from existing validated scales, the items were grouped into six constructs. After EFA was conducted, the 32 items, were grouped into four factors based on similarities. These four factors were labelled: (1) perceived ease of use and usefulness (PEU&U); (2) pandemic fear (PF); (3) privacy and trust (P&T); and (4) e-loyalty (E-L). From the results, it was clear that the items that were used to measure online shopping intentions (B10-B13), which formed part of the initial six constructs, were grouped together with items in other constructs (PF, PEU&U and E-L). The construct of online shopping intentions items (B10 to B13) distributed into the factors as follows: (i) item B10 loaded with the items from e-loyalty (E-L) factor, (ii) item B11 loaded with the items from PF, (iii) item B12 loaded with the items from PEU&U, and (iv) item B13 loaded with the items from E-L. Furthermore, the items included to measure perceived ease of use (PEU) and the items for perceived usefulness (PU) were also loaded together to form one construct for this study (PEU&U) based on the results from the EFA. The only initial construct that remained unchanged after the EFA is privacy and trust (P&T). This may imply that consumers engaging in online shopping during the COVID-19 pandemic's perceptions of perceived ease of use and usefulness were the same, and as a result, responses based on the items for these two constructs were clustered together based on similarity.

The following table, Table 4-10, indicates the factor loadings of the 32 items used in Section B (items B1 to B32), which resulted in the four factors for this research study.

Table 4-10: Exploratory factor analysis for factors influencing online shopping behaviour

	Item	(Factor 1) Perceived ease of use and usefulness	(Factor 2) Pandemic fear	(Factor 3) Privacy and trust	(Factor 4) E-loyalty
B20	Online shopping is useful during the COVID-19 pandemic because it is easy to search for items.	0.883			
B22	Online shopping during the COVID-19 pandemic is useful because it increases the variety of shopping items I am exposed to in the online store.	0.831			
B18	Online shopping during the COVID-19 pandemic is clear and understandable.	0.797			
B15	It is easy to understand online shopping websites, when I shop online during the COVID-19 pandemic.	0.782			
B17	Online shopping interactions during the COVID-19 pandemic are easy and flexible.	0.770			
B21	Online shopping during the COVID-19 pandemic is useful because it improves my performance when searching for and purchasing items.	0.766			
B16	It is easy to master online shopping during the COVID-19 pandemic.	0.754			
B23	Online shopping during the COVID-19 pandemic is useful because it enhances my effectiveness when searching for and purchasing items.	0.750			
B14	Online shopping during the COVID-19 pandemic is easy to use.	0.563			
B19	Online shopping is useful for purchasing items during the COVID-19 pandemic.	0.541			
B12	I shop online during the COVID-19 pandemic because of the wide variety of goods and services offered by online stores.	0.467			
B1	During the COVID-19 pandemic, I shopped online because I felt afraid of the pandemic.		-0.927		
B3	During the COVID-19 pandemic, I shopped online, because I feared the virus.		-0.922		
B2	During the COVID-19 pandemic, I shopped online because I felt panic upon facing the pandemic in a physical store.		-0.918		
B6	I shop online because I fear for my own health during the COVID-19 pandemic.		-0.907		

Item		(Factor 1) Perceived ease of use and usefulness	(Factor 2) Pandemic fear	(Factor 3) Privacy and trust	(Factor 4) E-loyalty
B5	I shop online because I have a concern of limited healthcare during the COVID-19 pandemic.		-0.891		
B8	I shop online because I fear that other individuals do not obey the rules and restrictions.		-0.874		
B4	I shop online because I fear for the health of close ones, I might be in contact with during the COVID-19 pandemic.		-0.834		
B7	I shop online because I fear the impact the COVID-19 pandemic has on the future local economic conditions.		-0.758		
B9	I shop online because I fear the limitations placed on my movement because of the restrictions in place to curb the spread of the COVID-19 pandemic.		-0.725		
B11	I shop online during the COVID-19 pandemic to avoid a physical store environment.		-0.511		
B26	When shopping online during the COVID-19 pandemic, I am confident that online shopping stores keep my personal and banking information private.			0.956	
B25	When shopping online during the COVID-19 pandemic, I trust that any third parties used by the online store protects me against any possible risks (such as personal information leakage, credit card fraud, etc.) if something goes wrong with my online purchase.			0.924	
B27	When shopping online during the COVID-19 pandemic, I trust that any other parties used by the online store have the responsibility to keep my personal and banking information private.			0.882	
B24	When shopping online during the COVID-19 pandemic, I trust that my personal information is kept private by the online store.			0.861	
B31	I will recommend online shopping to other individuals after the COVID-19 pandemic.				-0.877
B29	Online shopping will be my preferred shopping method after the COVID-19 pandemic.				-0.725
B32	I will positively report things about online shopping to other people after the COVID-19 pandemic.				-0.682

Item		(Factor 1) Perceived ease of use and usefulness	(Factor 2) Pandemic fear	(Factor 3) Privacy and trust	(Factor 4) E-loyalty
B30	I will shop online more often after the COVID-19 pandemic.				-0.641
B10	I enjoy shopping online during the COVID-19 pandemic.				-0.637
B28	I will continue to purchase items from online stores during the COVID-19 pandemic.				-0.621
B13	I recommend online shopping during the COVID-19 pandemic to my friends.				-0.567
Cronbach's alpha		0.946	0.965	0.958	0.905
Inter-item correlation mean		0.624	0.733	0.851	0.603
Mean values & Standard deviation		3.7705 (± 0.39103)	3.4650 (± 0.73293)	3.2884 (± 0.78065)	3.7291 (± 0.41496)

Extraction method: Principal axis factoring

Rotation method: Oblimin with Kaiser normalisation

a. Rotation converged in 8 iterations

Firstly, factor 1 was labelled as perceived ease of use and usefulness (PEU&U). This factor consisted of 11 items that were categorised and grouped together based on similarities between the items. The 11 items were combined from three different constructs included in the questionnaire: PEU, PU & Online Shopping intentions. These items are B12 (from the construct online shopping intentions), B14 to B18 (PEU), and B19 to B23 (PU). The items included in factor 1 ranged from online shopping during the COVID-19 pandemic was easy to master, use, understand, easy and flexible, and clear and understandable. Furthermore, other items such as consumers shopped online during the COVID-19 pandemic due to the usefulness of the online store, because it is easy to search for items, it increases the variety of shopping items consumers are exposed to, it enhances consumers' effectiveness when searching and purchasing items, it improves consumers performance when searching and purchasing items, and consumers shop online because of a wide variety of goods and services that are offered, were also included in factor 1.

Secondly, factor 2 was labelled pandemic fear (PF). Factor 2 consisted of ten items that were grouped together based on similarities between the items. The ten items were combined from two different constructs included in the questionnaire: PF & online shopping intentions. The items for PF included consumers shopped online during the COVID-19 pandemic because they feared the virus, they feared for their own health, they feared for the health of close ones they might be in contact with, they feared the limitations that were placed on their movement because of the restrictions in place to curb the spread of the virus, they feared that other individuals do not obey the rules and restrictions, and they also feared the impact the COVID-19 pandemic has on the future local economic conditions. Furthermore, items such as consumers shopping online because they were concerned about the limited healthcare during the COVID-19 pandemic, they felt afraid of the COVID-19 pandemic, they felt panic upon facing the pandemic in a physical store, and they shopped online to avoid a physical store environment, were also included in factor 2 (PF).

Factor 3 was labelled privacy and trust (P&T), and included four items that remained unchanged from the original privacy and trust construct. The items included in Factor 3 were: consumers' confidence that online shopping stores kept their personal and banking information private, and their trust that any other parties used by the online store have the responsibility to keep their personal and banking information private when shopping online during the COVID-19 pandemic. Furthermore, consumers' trust that any third parties used by the online store protect them against any possible risks, and trust that their personal information is kept private by the online store, when shopping online during the COVID-19 pandemic, were also included in the P&T factor.

The last factor, factor 4, was labelled as e-loyalty (E-L). For E-L, seven items were categorised into E-L based on similarities between the items. The seven items were combined from two different constructs included in the questionnaire: online shopping intentions and E-L. The items included in E-L were: after the COVID-19 pandemic online shopping would be consumers' preferred shopping method, and they would shop online more often. Furthermore, they would recommend online shopping to others, and report positive things about online shopping to other individuals. Added to this, items stating that consumers would continue to shop online as they enjoyed online shopping, they would continue to purchase items from an online store after the pandemic, were also included in E-L.

Table 4-10 indicates that factor 1, PEU&U delivered the highest mean value: 3.7705. (std. dev. = ± 0.39103 ; CA = 0.946). Therefore, of all the factors extracted, PEU&U played the most significant role in respondents' online shopping behaviour during the COVID-19 pandemic. This is of critical importance for online businesses, since the respondents perceived the ease of use and usefulness of online shopping during the COVID-19 pandemic as highly important. This finding is supported by results from previous research studies conducted by Adam *et al.* (2022:123), Alzaidi and Agag (2022:9), Ferdianto (2022:325), Moslehpour *et al.* (2018:12), and Ofori and Appiah-Nimo (2019:11), who similarly emphasise that perceived ease of use and usefulness is an important factor when considering online shopping. This implies that online businesses' marketing divisions who want to increase consumers' online shopping within their online stores must place a strong focus on the ease to search for items, the variety of goods and services offered, and the clarity as well as understandability of the online shopping site. Online shopping sites that are easy to use and useful, would fulfil consumers' needs in their search for products and services not only during the pandemic, but also thereafter.

Factor 4, E-L, presented the second highest mean value: 3.7291 (std. dev. = ± 0.41496 ; CA = 0.905). This signifies that after PEU&U, E-L had the second most important influence on consumers' online shopping behaviour during the COVID-19 pandemic. This indicated that respondents' intentions to continue their online shopping during and after the pandemic are high. It is therefore important for online businesses to recognise that consumers will most likely remain loyal towards online shopping after the pandemic. The results are in line with previous research studies, conducted by Al-Khayyal *et al.* (2020b:269-270), Ghali (2021:16), and Wandoko and Panggati (2021:3-4), who also found that e-loyalty plays a significant role in consumers' online shopping behaviour. This implies that if owners and marketers of online stores want to increase consumers' e-loyalty, they should ensure that consumers only have good recommendations, as well as positive reports to make about their online shopping experience. This will lead to online shopping becoming consumers' preferred shopping method.

Factor 2, PF, delivered the third highest mean value: 3.4650 (std. dev. = ± 0.39103 ; CA = 0.965). This indicates that consumers' fear of the COVID-19 pandemic played a role in their online shopping behaviour. Online businesses should pay close attention to consumers' fear of the pandemic. This finding is supported by Eger *et al.* (2021:5), Fihartini *et al.* (2021:24), Naeem (2020:386), Tran (2021:7), and Truong and Truong (2022:10), who also found that the fear of the COVID-19 pandemic does have an influence on consumers' online shopping behaviour. Marketing managers and owners of online businesses should focus on considering consumers' fear of the pandemic and health concerns, as well as the level of safety implied by online shopping during the COVID-19 pandemic, as opposed to shopping in physical stores. By stressing that it is safer to shop online during the COVID-19 pandemic in marketing attempts, consumers' fear of the pandemic might decrease and those who did not engage in online shopping activities prior to the pandemic will actively do so.

Factor 3, P&T, had the lowest mean value: 3.2884 (std. dev. = ± 0.78065 ; CA = 0.958). Therefore, consumers' perceived privacy and trust (P&T) had the lowest influence on their online shopping behaviour. Online businesses should note that respondents' privacy and trust in online shopping during and after the COVID-19 pandemic do have an influence on their online shopping behaviour. The results have also been confirmed by Almajali and Hammouri (2021:12975-12976), Alzaidi and Agag (2022:9), Martin (2018:110) Pappas (2018:15), and Rahman *et al.* (2018b:115), who indicate that privacy and trust play a role in influencing consumers' online shopping behaviour. However, it is evident that factors such as PEU&U, E-L, and PF have a more significant influence on shopping behaviour than P&T in this research study. This might be because online shopping is regarded as an established form of shopping in South Africa, and consumers realise that the privacy and trust in online sites have improved significantly over the past few years. Marketing managers and owners of online businesses should ensure that consumers know that their personal and banking information is kept private, that third parties used by the online store protects consumers against possible risk, and that any other parties used by the online store have the responsibility to keep their personal and banking information private. This can be done by developing privacy policies that ensure that the online store commits to safeguarding the personal and banking information of their consumers, and that they allocate adequate resources in terms of information technology and development of online stores that cannot be infiltrated and invaded by outside forces.

4.3.3 Correlation analysis between the exploratory factors

The researcher aimed to establish the relationship between the four factors: PEU&U, PF, P&T, and E-L. According to Mooi *et al.* (2017:117) correlations range from -1.0 to 1.0, where 1.0 indicates a perfect positive correlation. The correlations between the factors are indicated in Table

4-11. Even though the mean values, standard deviation, spearman correlation coefficients, and significance values are indicated, the focus is on the effect sizes to determine the extent of the relationship between the factors. Cohen’s d was used in this study to show the difference between the mean values (Daniels & Minot, 2020:152). A d-value of less than 0.2 (<0.2) denotes a small effect with no significant difference, whereas a d-value of more than 0.5 (>0.5) denotes a medium effect with a tendency toward practically significant difference. Large effect sizes are implied by d-values higher than 0.8 (>0.8), indicating a large effect with a practically significant difference.

Furthermore, the interpretation of the correlation between the factors based on the Spearman correlation coefficient was as follows: a weak (small) correlation is indicated as smaller than 0.30, a moderate (medium) correlation is between 0.30 and 0.49, and a strong (large) correlation is larger than 0.49 (Cohen *et al.*, 2018:746; Mooi *et al.*, 2017:117).

Table 4-11: Correlation between the four arranged factors

Content	Mean	Std. dev.	PEU&U	PF	P&T	E-L
PEU&U						
Spearman correlation coeff (r_s)			1,000	.629**	.398**	.716**
Sig. (2-tailed)	3.77	0.39		0,000	0,000	0,000
N			280	280	280	280
Effect sizes (Cohen’s <i>d</i>)				0.52	0.78	0.10
PF						
Spearman correlation coeff (r_s)			.629**	1,000	.415**	.536**
Sig. (2-tailed)	3.46	0.73	0,000		0,000	0,000
N			280	280	280	280
Effect sizes (Cohen’s <i>d</i>)			0.52		0.23	0.44
P&T						
Spearman correlation coeff (r_s)			.398**	.415**	1,000	.381**
Sig. (2-tailed)	3.28	0.78	0,000	0,000		0,000
N			280	280	280	280
Effect sizes (Cohen’s <i>d</i>)			0.78	0.23		0.70
E-L						
Spearman correlation coeff (r_s)			.716**	.536**	.381**	1,000
Sig. (2-tailed)	3.72	0.41	0,000	0,000	0,000	
N			280	280	280	280
Effect sizes (Cohen’s <i>d</i>)			0.10	0.44	0.70	

** . Correlation is significant at the 0.01 level (2-tailed).

* $d \leq 0.2$ small effect with no practical significance

** $d 0.5 \leq 0.8$ medium effect tends towards practical significance

*** $d \geq 0.8$ large effect with practical significance

The null and alternative hypotheses stated for this research study are as follow:

H₀1: There is no positive significant relationship between ease of use and usefulness on pandemic fear

H_a1: There is a positive significant relationship between ease of use and usefulness on pandemic fear.

H₀2: There is no positive significant relationship between ease of use and usefulness on privacy and trust.

H_a2: There is a positive significant relationship between perceived ease of use and usefulness on privacy and trust.

H₀3: There is no positive significant relationship between perceived ease of use and usefulness on e-loyalty.

H_a3: There is a positive significant relationship between perceived ease of use and usefulness on e-loyalty.

H₀4: There is no positive significant relationship between pandemic fear on privacy and trust.

H_a4: There is a positive significant relationship between pandemic fear on privacy and trust.

H₀5: There is no positive significant relationship between pandemic fear on e-loyalty.

H_a5: There is a positive significant relationship between pandemic fear on e-loyalty.

H₀6: There is no positive significant relationship between privacy and trust on e-loyalty.

H_a6: There is a positive significant relationship between privacy and trust on e-loyalty.

From Table 4-11, PEU&U (M=3.77) indicates a large correlation with PF (M=3.46) where $p=0.629$. Furthermore, the difference indicated by the $d=0.52$ implies a medium effect which tends towards a practically significant relationship between PEU&U and PF. Therefore, perceived ease of use and usefulness has a practically significant relationship with pandemic fear among consumers who shop online during the COVID-19 pandemic. Consequently, from the above, it is concluded that the H₀1 hypothesis is rejected and the H_a1 hypothesis is accepted; as such, it is evident that the perceived ease of use and usefulness of online shopping sites have a positive significant relationship, and it can assist in decreasing consumers' level of pandemic fear in their online shopping behaviour. Therefore, consumers will perceive online shopping as easy to use and useful when their fear of the pandemic is decreased by their online shopping activities. Therefore,

marketing managers and owners of online stores should place an emphasis on the fact that it is much safer to shop online during the pandemic compared to visiting a physical store. This will reduce consumers' fear of the pandemic, while directly increasing their perceived ease of use and usefulness of the online store.

The factor of PEU&U ($M=3.77$) indicates a medium correlation with P&T ($M=3.28$), where $p=0.398$. Furthermore, the effect of $d=0.78$ implies a practically significant relationship between PEU&U on P&T. Therefore, perceived ease of use and usefulness plays an important role in reducing privacy and trust concerns among consumers who shop online during the COVID-19 pandemic. Considering the hypothesis stated above, it is concluded that the H_{02} hypothesis is rejected and the H_{a2} hypothesis is accepted. This is because a positive significant relationship exists between perceived ease of use and usefulness and privacy and trust, PEU&U can assist in decreasing consumers' privacy and trust concerns in their online shopping behaviour. Therefore, as consumers' perceived ease of use and usefulness of the online store increase, any concerns that they may have with regard to privacy and trust concerning their personal and banking details will decrease. Furthermore, based on the results indicated in table 4-11, it is also clear that PEU&U ($M=3.77$) indicates a large correlation with E-L ($M=3.72$), where $p=0.716$. Additionally, the difference indicated by the $d=0.10$ implies no significant relationship between PEU&U and E-L. Consequently, from the above it is concluded that the H_{03} hypothesis is accepted and the H_{a3} hypothesis is rejected.

The factor of PF ($M=3.46$) indicates a medium correlation with P&T ($M=3.28$), where $p=0.415$. Furthermore, the difference indicated by the $d=0.23$ implies no significant relationship between PF and P&T. As a result, it is concluded that the H_{04} hypothesis is accepted and the H_{a4} hypothesis is rejected.

With regard to pandemic fear and e-loyalty, it is evident from table 4-11 that PF ($M=3.46$) indicates a large correlation with E-L ($M=3.72$), where $p=0.536$. However, the $d=0.44$ implies a small effect which indicates that there is no practically significant relationship between pandemic fear and e-loyalty. As such, it is concluded that the H_{05} hypothesis is accepted and the H_{a5} hypothesis is rejected.

Lastly, P&T ($M=3.28$) indicates a medium correlation with E-L ($M=3.72$), where $p=0.318$. Furthermore, the difference indicated by $d=0.70$ implies a positive significant relationship between P&T on E-L. As a result, the H_{06} hypothesis is rejected and the H_{a6} hypothesis is accepted. Therefore, as consumers' concerns regarding privacy and trust decrease, their level of e-loyalty toward the online store will increase as they shop online during and after the COVID-19 pandemic.

4.3.4 Validation of relationship between factors

A Structural Equation Model further validate the relationships of the four factors and to present unified results. In terms of the structural model with the PEU&U, P&T, and PF, a moderately adequate CFI value of 0.867 was obtained. An RMSEA value of 0.100 with a 90.00% confidence interval of (0.110, 0.95, 0.105) was obtained. The CMIN/DF value of 3.771, which is smaller than 5 represents a good model fit (Mueller, 1996). In terms of the validity of the model the scales also presented reliability for all the items within the four factors ($p < 0.05$).

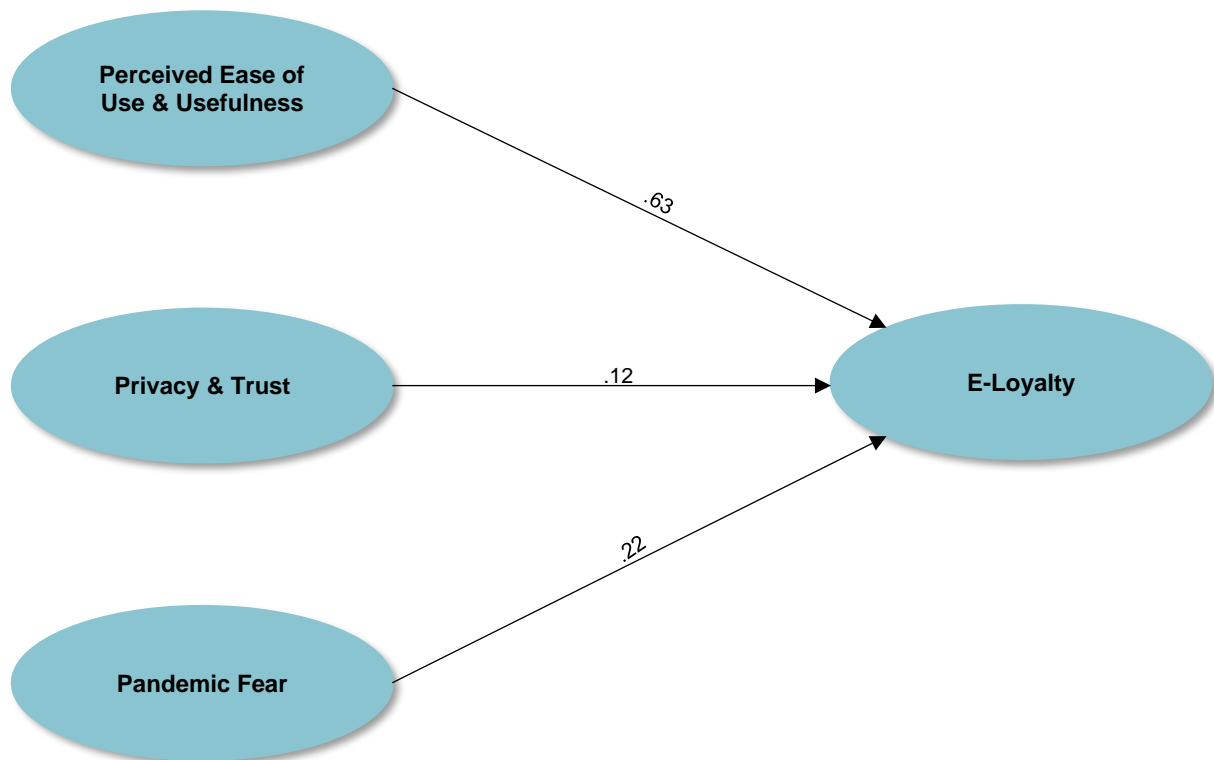
Table 4-12: Structural model estimation

Factors			Standardised Regression Weights	P
E-L	<---	PEU&U	0.627	***
E-L	<---	P&T	0.120	.009
E-L	<---	PF	0.215	***

**** p<0.05

The SEM illustrates the relationship between the factors and were supportive towards achieving the objective of the research, *to determine the influence of perceived ease of use and usefulness, privacy and trust, and pandemic fear on e-loyalty*. Figure 4-1 illustrates the influence of PEU&U, P&T, and PF on EL, based on the results from the structural model estimates as indicated in Table 4-12.

Figure 4-1: Influence of PEU&U, P&T, and PF on EL



The SEM was used to determine the effect of PEU&U, P&T, and PF on E-L. From the above figure it is clear that PEU&U has the most influence on E-L, with P&T having the least amount of influence on E-L. As such it is important to increase PEU&U of online stores in an attempt to ensure that consumers' loyalty toward the online store post-pandemic also increases.

4.4 CONCLUSION

This chapter, Chapter 4, indicated and reported the results, gathered through the online questionnaire, in order to address the empirical objectives to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour.

Section 4.2 determined the demographic profile of consumers' online shopping during the COVID-19 pandemic, which was collected in Section A of the online questionnaire and was shown by frequencies and percentages.

Section 4.3 reported on the influence of the COVID-19 pandemic on consumers' online shopping behaviour. Within this section, the descriptive statistics, the factor analysis, and the correlation analysis are reported on, based upon the data collected for this research study. Section 4.3.1 a descriptive statistic were calculated, and revealed the percentages and frequencies of the six constructs, i.e. pandemic fear (§4.3.1.1), online shopping intentions (§4.3.1.2), perceived ease of use (§4.3.1.3), perceived usefulness (§4.3.1.4), privacy and trust (§4.3.1.5), and e-loyalty

(§4.3.1.6). Furthermore, section 4.3.2 provides a discussion on the factor analysis, more specifically the EFA, which, after conduction, grouped the 32-items into four factors (PF, P&T, and E-L) based on similarities.

Section 4.3.3 reported on the correlation analysis that was performed on the four EFA factors, PEU&U, PF, P&T and E-L, through the Spearman correlation coefficient (r_s). The correlation between the factors indicated that three positive significant relationships exist; firstly, between P&T and E-L; secondly, between PEU&U and P&T; and lastly, between PEU&U and PF (§4.3.3).

The next chapter, Chapter 5, provides a summary of the research study and the results. In addition, it provides recommendations, indicates the limitations, and discusses the future opportunities of the research study. Therefore, an overall conclusion on determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour is provided in Chapter 5.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This study aimed to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour. It is essential to understand consumer behaviours at this particular time of crisis, as specific new trends in online shopping may form and remain from this point forward.

The wide spread of the COVID-19 pandemic affected consumers' shopping behaviour (Gu *et al.*, 2021:2264). Consumers' day-to-day lives were reshaped by the COVID-19 pandemic, as many countries implemented measures such as lockdown restrictions, stay-at-home implementations, self-isolation, social distancing, restricted mobility, and the closure of stores. This was all done in an attempt to curb the spread of the virus (Adams-Prassl *et al.*, 2020:10; Alhaimer, 2022:26-27; Das *et al.*, 2022:694; Koch *et al.*, 2020:3). This not only led to a loss of routine, but also to an increase in consumers' who rather shop online to avoid possible contact with the virus (Dannenberg *et al.*, 2020:543; Das *et al.*, 2022:694). The internet is a popular tool, which consumers use to shop online for products and services to satisfy their wants and needs (Kasuma *et al.*, 2020:32; Sardjono *et al.*, 2021:1). Through the restrictions put in place by governments, it was clear that governments around the world indirectly encouraged online shopping, and consumers considered it to be a safer option during the COVID-19 pandemic (Alhaimer, 2022:26-27; Fihartini *et al.*, 2021:18). As such, the COVID-19 pandemic affected traditional shopping modes that led to an intensified increase in online shopping, which is now largely being accepted by consumers as it meets their needs (Ferdianto, 2022:314)

As mentioned above, traffic to online stores noticeably increased at a rapid pace (both internationally and locally) during the COVID-19 pandemic (Lissitsa & Kol, 2016:305). According to Statista (2022), there were over 5 billion active internet users in April 2022 across the world. Likewise, within South Africa alone, there were over 41 million active internet users in January 2022 (Galal, 2022).

The COVID-19 pandemic not only changed shopping conditions for consumers, but also activated a high demand for online shopping, which changed actions for business-to-business and business-to-consumers (Deloitte, 2021). As the pandemic rapidly expanded the need for online shopping, businesses innovatively provided consumers with the option to shop online through the online business or increased their capacity for online shoppers (Kosasi, 2021:1423).

Online consumer behaviour studies are particularly relevant during and after the COVID-19 pandemic, and online shopping is still becoming increasingly significant. This study aimed to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour, with specific reference to pandemic fear, online shopping intentions, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty.

This chapter, Chapter 5, provides a complete overview of the research study. Section 5.2 summarises the study comprehensively, while section 5.3 examines the main results of the research. Furthermore, section 5.4 presents the contribution of the study, section 5.5 makes recommendations based on the results, and section 5.6 discusses the limitations of the study as well as future research opportunities. Finally, section 5.7 provides concluding remarks and an overall reflection of the researcher's journey with this research study.

5.2 SUMMARY OF THE CHAPTERS

This study's primary objective was to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour. Section 5.2, summarises the four chapters (Chapter 1 to Chapter 4) of the study, which all contributed towards the final results delivered in Section 5.3.

Chapter 1 provided the introduction (§1.1) of this research study, i.e., determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour. The background to the study and the research problem that occurred within the research field, were also set out in this chapter (§1.2). Furthermore, a short literature overview of online shopping (§1.3) motivated the research problem that exists. In this section, some of the literature that explored consumers' online shopping behaviour during the COVID-19 pandemic (§1.3.1 to §1.3.3) and the factors of influence: pandemic fear (§1.3.3.1), online shopping intentions (§1.3.3.2), perceived ease of use (§1.3.3.3), perceived usefulness (§1.3.3.4), privacy and trust (§1.3.3.5), and e-loyalty (§1.3.3.6) were summarised to contextualise the importance of this study in the research field. These sections assisted in the development of the research objectives (§1.4), which resulted in a primary objective (§1.4.1), three theoretical objectives (§1.4.2.1) and four empirical objectives (§1.4.2.2). This chapter also stated the six hypotheses developed for the research study in section 1.5. In order to supplement the quantitative research design, a comprehensive overview of the research design and methodology was provided in section 1.6. The remaining sections of the chapter presented an overview of the study's contributions (§1.7), ethical considerations (§1.8), and outline of the chapters (§1.9).

Within Chapter 2, the three theoretical objectives, as set out in Chapter 1, were addressed by means of a literature review. Section 2.1 provided an overview of what the chapter presents in terms of the literature review. Section 2.2 proceeded by providing an overview of the marketing

phenomenon. This was accomplished by defining marketing (§2.2.1), and further elaborating on the digital era of marketing (§2.2.2). In section 2.3, consumer behaviour as a marketing concept was discussed. Consumer behaviour was then contextualised within the uses and gratification theory (§2.3.1). Furthermore, a theoretical analysis of the online shopping phenomenon was provided (§2.4) by defining shopping (§2.4.1), describing online shopping (§2.4.2), and discussing the advantages (§2.4.2.1) and disadvantages (§2.4.2.2) of online shopping. In section 2.4.3, the backdrop of international online purchasing was covered, following which the state of South African online shopping was reviewed (§2.4.4).

An overview of the effects of the COVID-19 pandemic, specifically on consumer behaviour, was discussed in section 2.5.1. Global online shopping behaviour (§2.5.2), and South African online shopping behaviour (§2.5.3) were outlined in the remainder of section 2.5. The factors influencing consumers' online shopping behaviour were explained in section 2.6. These factors were pandemic fear (§2.6.1), online shopping intentions (§2.6.2), the technology acceptance model (TAM), with specific reference to perceived ease of use (§2.6.3.1) and perceived usefulness (§2.6.3.2), privacy and trust (§2.6.4), and e-loyalty (§2.6.5). Finally, section 2.7 concluded Chapter 2 with a summary of the results pertaining to the theoretical objectives.

The research methodology and design used for this study were explained in great detail in Chapter 3. A radical structuralist paradigm guided the research in this study (§3.2). A descriptive research design was utilised using a quantitative research approach (§3.3). The sampling strategy (§3.4) focused on providing the research study's target population, which was individuals 18 year of age and older who engaged in online shopping during the COVID-19 pandemic (§3.4.1). Due to the Protection of Personal Information Act 4 of 2013, which safeguards individuals' privacy and data, the sample frame was not determined (§3.4.2). A non-probability snowball sampling method was implemented to gather the data (§3.4.3). A sample size of 280 individuals engaging in online shopping during the COVID-19 pandemic was used to gather data (§3.4.4). A self-administered, online questionnaire was used and distributed on social media platforms, more specifically Facebook and Instagram, to collect the data that was included in data analysis procedures (§3.5). Before distributing to the target population, the online questionnaire was pre-tested by qualified researchers; however, that data of these questionnaires was not included in the final data analysis (§3.6). Section 3.7 elaborated on the conscientious administration of the online questionnaire, followed by the preliminary data analysis used in this research study (§3.8). The chapter concluded with section 3.9, which included a thorough explanation of the statistical analysis used in the study.

The empirical results of this study are provided in Chapter 4 in line with the empirical goals outlined in Chapter 1, based on the statistical analysis and data interpretation. In section 5.3, the aforementioned is explained in more detail.

5.3 MAIN RESULTS OF THE STUDY

This section provides a summary of the key results of this study, which are discussed in Chapter 4 (§4.2 & 4.3). The results are in line with the empirical objectives as set out in Chapter 1 (§1.4.2.2):

- Determine consumers' current online shopping behaviour with reference to purchasing online during the COVID-19 pandemic and the types of products purchased online.
- Determine consumers' online shopping behaviour during the COVID-19 pandemic with specific reference to the influence of pandemic fear, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty.
- Determine the relationship between pandemic fear, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty influencing consumers' online shopping behaviour during the COVID-19 pandemic.
- Determine the influence of perceived ease of use and usefulness, privacy and trust, and pandemic fear on e-loyalty.

The first empirical objective was to determine consumers' current online shopping behaviour with reference to purchasing online during the COVID-19 pandemic and the types of products purchased online. This was obtained by showing the frequencies and percentages of every response (§4.2). Results indicated that the majority of respondents purchased fashion items ranging from a ticket to an online fashion event, clothing or shoes, as well as electronic devices during the COVID-19 pandemic.

The second empirical objective was to determine consumers' online shopping behaviour during the COVID-19 pandemic with specific reference to the influence of pandemic fear, perceived ease of use, perceived usefulness, privacy and trust and e-loyalty. This was done by analysing the descriptive statistics for each of the constructs included in the questionnaire (§4.3.1) and by employing an exploratory factor analysis (§4.3.2). With regard to pandemic fear (§4.3.1.1), it was clear that consumers shopped online during the COVID-19 pandemic because they feared that other individuals did not obey the rules and restrictions. In the section measuring online shopping intentions (§4.3.1.2), it was evident that consumers recommended online shopping to their friends during the COVID-19 pandemic. The descriptive statistics for perceived ease of use (§4.3.1.3)

indicated that consumers shopped online during the COVID-19 pandemic because it was easy to use and to master. Subsequently, in terms of perceived usefulness (§4.3.1.4), it was revealed that the majority of respondents agreed that online shopping is useful for purchasing items during the COVID-19 pandemic. Respondents also indicated that they trusted that third parties used by online stores will protect them against any possible risks when shopping online (§4.3.1.5) and that they will continue to shop online during the COVID-19 pandemic (§4.3.1.6).

Furthermore, novel to this study, the exploratory factor analysis revealed that from the initial six constructs measured and reported on in the descriptive statistics, only four factors determined consumers' online shopping behaviour during the COVID-19 pandemic (§4.3.2). This resulted in a validated scale measuring South African consumers' online shopping behaviour during the COVID-19 pandemic. The Cronbach's alphas, the KMO, the Bartlett's test of sphericity, the correlation of variables, and the eigenvalues, which revealed a difference between the factors, were used to confirm the reliability between the factors. Consequently, the statistics supported the results of this study in accordance with results of previous research studies and the literature review provided in Chapter 2.

In confirmation, previous research studies by Adam *et al.* (2022:123), Alzaidi and Agag (2022:9), Ferdianto (2022:325), Moslehpour *et al.* (2018:12), and Ofori and Appiah-Nimo (2019:11) likewise emphasise that perceived usefulness and ease of use are important aspects when consumers consider online shopping as an alternative to shopping at physical stores.

For e-loyalty (presenting the second highest mean value), the results of this research study confirmed the results by Al-Khayyal *et al.* (2020b:269-270), Ghali (2021:16), and Wandoko and Panggati (2021:3-4), who also indicated that e-loyalty plays a significant role in online shopping behaviour.

From the results, it was clear that pandemic fear had the third highest mean value and this was supported by results from research conducted by Eger *et al.* (2021:5), Fihartini *et al.* (2021:24), Naeem (2020:386), Tran (2021:7), and Truong and Truong (2022:10).

Lastly, privacy and trust had the lowest mean value in the EFA. From previous research studies conducted by Almajali and Hammouri (2021:12975-12976), Alzaidi and Agag (2022:9), Martin (2018:110) Pappas (2018:15), and Rahman *et al.* (2018b:115), it was also clear that privacy and trust have an influence on the online shopping behaviour of consumers.

The third empirical objective of this research study was to determine the relationship between pandemic fear, perceived ease of use, perceived usefulness, privacy and trust, and e-loyalty influencing consumers' online shopping behaviour during the COVID-19 pandemic. This was

discussed in section 4.3.3, where Spearman's rank-order correlation analysis was used to confirm the relationship between the factors influencing consumers' online shopping behaviour. The p-values for each factor were used to illustrate said relationships. Furthermore, Cohen's d-values were also calculated to indicate the difference between the mean values, with reference to whether any practically significant relationship exists between the factors. This assisted the researcher to accept or reject the hypotheses stated in Chapter 1 (§1.5).

The results indicated that practically significant relationships exist between PEU&U and PF, PEU&U and P&T, and P&T and E-L. This suggests that if internet purchasing makes customers feel less anxious about the pandemic, they will consider it to be easy to use and useful. Any concerns consumers may have about their privacy and trust when shopping online will also diminish as a result of this.

Last but not least, structural equation modelling (SEM) was used to ascertain how PEU&U, PF and P&T affected E-L (§4.3.4), and to validate the relationship between factors. From the results of the SEM, based on the adequate CFI value, the RMSEA value, and the CMIN/DF value, it was clear that the results presented a good model fit. The structural model estimation revealed that PEU&U has the most significant influence on e-loyalty. This implies that, in order to ensure that consumer loyalty towards the online store increases after the pandemic, it is crucial to increase PEU&U of online stores. The contribution that these results offer to the field of research will be discussed in the following section.

5.4 CONTRIBUTION OF THE STUDY

From the literature, it is evident that the sudden spread of the COVID-19 pandemic impacted the world in many different ways. As a result, it remains important to conduct studies on consumers' behavioural influences during this time, which will assist marketing managers and business owners to understand the impact of consumer behaviour on business success in an ever-changing environment. Technology allows for marketing in the digital era to continuously adapt to new technologies. The COVID-19 pandemic opened a gap and highlighted the importance of an online presence for businesses, as consumers turned to online shopping during this time.

Understanding the influences of consumers' behaviour during a crisis, such as the COVID-19 pandemic, enables businesses and their marketing divisions to develop marketing strategies to not only attain consumers, but also to potentially sustain them for a long period of time. Although previous research studies have been conducted on consumer behaviour and online shopping, not many have been conducted with the specific aim of determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour, with a specific focus on South African

consumers. Therefore, the research study contributes towards the literature expansion of understanding consumers' online shopping behaviour *during* and *after* the COVID-19 pandemic.

The results of this study add to the global and South African context for both businesses and marketers. Knowledge of the factors that influence South African consumers' online shopping behaviour during the COVID-19 pandemic can assist business owners and marketers to place a strong focus on improving and developing online business models that cater to specific consumer needs. This will not only add value to consumers' lives, but it will also aim to create loyal consumers for a long period of time. The results of this study mainly found the perceived ease of use and usefulness of online stores have the most significant influence not only on consumers' online shopping behaviour, but also on their level of e-loyalty towards the online store.

As a result, this study provides guidelines and recommendations that businesses and their marketing divisions can use to enrich their online shopping value proposition to South African consumers.

5.5 RECOMMENDATIONS

The offering of an online shopping option for businesses is becoming highly important. However, in an ever-growing market, this can be difficult. Therefore, the importance of understanding consumers' online shopping behaviour, especially during an unusual event such as the COVID-19 pandemic, can be beneficial for businesses and their future existence.

This section makes recommendations based on the results of this research study. Summarised recommendations are provided in Table 5-1, which are followed by a detailed description of each of the recommendations in section 5.5.1 to section 5.5.4.

Table 5-1: Summarised indication of the recommendations of each factor

Construct	Recommendations
Perceived ease of use and usefulness (PEU&U)	<ul style="list-style-type: none"> • Improve the search function on online stores. • Increase the variety of products and services offered online. • Ensure the clarity and understandability of online stores.
Pandemic fear (PF)	<ul style="list-style-type: none"> • Ensure an online environment that is safe to use. • Encourage the adoption of online shopping. • Assert the health benefits of using an online store.
Privacy and trust (P&T)	<ul style="list-style-type: none"> • Develop and clearly communicate strong privacy policies. • Approve of third-party usage beforehand.
E-loyalty (E-L)	<ul style="list-style-type: none"> • Build a social media community to enhance recommendations. • Create a preferred online shopping environment.

The following sections (§5.5.1 to §5.5.4) elaborate on the recommendations made concerning the online shopping behaviour of South African consumers.

5.5.1 Recommendations regarding perceived ease of use and usefulness

Previous studies have found that perceived ease of use and usefulness is an important factor that play a significant role when shopping online during the COVID-19 pandemic (Al-Hattami, 2021:10; Almajali & Hammouri, 2021:12976; Ferdianto, 2022:325; Iriani & Andjarwati, 2020:318). Perceived ease of use and usefulness is the degree to which consumers believe that using technology can enhance their performance and that technology use can be free of effort (Huang *et al.*, 2019:960). Results obtained in this research study show that South African consumers' perceived ease of use and usefulness of online stores have the most significant influence on their online shopping behaviour. Recommendations regarding perceived ease of use and usefulness of online stores include:

- Business owners, marketing divisions, managers and online store developers should note the importance of the online stores search function. In the mind of consumers, the perceived ease of use and usefulness of the online stores strongly depend on how easy it is to search for products and services. Therefore, the online store should develop a user-friendly navigation option. Online stores should ensure that consumers know exactly where to find the search function by clearly making it visible on the online store. Furthermore, this can be enhanced by developing the search function in such a way that it does not leave out any possible results when consumers search for specific items. The search function in an online store will not only connect consumers to the product and service they require, but it would also enable faster results that can lead to satisfying consumers' needs.
- A strong focus must be placed on the variety of products and services offered by online stores. Consumers' perceptions of the variety of products and services offered online determine whether they view the online store as a useful alternative to traditional modes of shopping. Online stores would have to ensure that all the products and services offered by the business are available online. Each product must be listed and categorised to make it easy for consumers to search for and find the products and services they need. Furthermore, product specifications and details should be clearly indicated, as consumers cannot physically inspect the product or service they would like to purchase, as the case would be in a physical store. A wide variety of products and service offerings would likely increase consumers' purchasing behaviour, as all the items they need can be easily found in one central, digital space.
- Business owners, marketing divisions and online store developers must develop the online store in such a way that any possible confusion is avoided. To achieve this, the focus must

be on a well-designed website page with an exceptional store layout that is not only clear and undertakable, but that also has easy to use navigation functions. These functions can include easy check-out and payment options, easy access to customer support services, and an easy-to-use menu. This will ensure clarity and understandability of the online store among consumers. Other important elements to keep in mind are the use of high-quality images, useful product information, and clear marketing indications.

Online businesses that focus on the ease of use and usefulness of online stores indirectly increases consumers' e-loyalty toward the online store, where consumers will tend to continue shopping online in the future.

5.5.2 Recommendations regarding pandemic fear

With the sudden spread of the COVID-19 pandemic, consumers developed fear for the situation, as their main concern was that other people may not obey the rules and restrictions, and that they feared for the health and safety of their loved ones. Recommendations regarding pandemic fear as a factor influencing online shopping behaviour include:

- Attention must be given to consumers' fear surrounding the COVID-19 pandemic. Businesses must note that consumers' fear will not be instantly eliminated. However, online businesses can take advantage of limiting consumers' fear of the pandemic by demonstrating an ethic of care. Online stores must communicate safety measures to stay safe from the virus in a motivational way to their consumers. This can be done by clearly stating guidelines on how consumers can prevent spreading the virus on their online store and other relevant social media sites of the business. The following guidelines can be highlighted in case of facing a pandemic or contagious virus: limiting movement, avoid crowded spaces, and wear protection gear when necessary. Therefore, businesses not only show interest in consumers, but also aim to build a relationship with the consumer through an ethic of care during sensitive times.
- Online stores can encourage the adoption of online shopping as consumers feel panic upon facing physical stores. As such, online stores can highlight the convenience and ease of use of online stores with reference to how consumers stay safe from the virus when shopping online. By asserting that online shopping can reduce direct contact with the virus, consumers can feel at ease, calm and secure when shopping online. Consumers must be made aware that the online store is a safe place that can be accessed in the comfort of their own homes, work environment or where they feel the need to shop for products or services.
- Online businesses, marketers and managers should assert the health benefits of shopping online. Consumers must be aware of the safety measures the online business takes when

packaging products, ensuring that delivery services can be trusted, and that consumers' health is always a key priority. Businesses must assert that online shopping benefits consumers as it reduces the chance of getting infected or spreading a health threatening virus, and in this way, consumers start gaining trust in the businesses.

With a sudden disruption in our daily lives, the influence of fear towards a situation or event (such as the COVID-19 pandemic) developed among consumers. Businesses can learn and understand consumers' behaviour of fear of the COVID-19 pandemic, to develop current and future marketing strategies that will reduce consumers' fear and increase their continued online shopping activities on the online store.

5.5.3 Recommendations regarding privacy and trust

Consumers' perceived privacy and trust are a major concern within the online environment, especially when shopping online (Broeder, 2020:14-15; Gupta & Dubey, 2016:224; Shah *et al.*, 2013:572). Privacy and trust within the online environment are of great importance for businesses, not only to attain consumers but also to prevent potential loss of consumers due to an unsuccessful or risky online purchase (Martin, 2018:112). Recommendations regarding privacy and trust include:

- Businesses must develop and clearly communicate a strong privacy policy regarding consumers' interaction with and use of the online store. Online businesses must clearly indicate the privacy policy they implement by making it noticeable by providing a "read the policy" tab on the menu option within the online store's webpage. Consumers will feel more comfortable when the policy (i) honestly explains how information is being used, (ii) makes use of non-confusing, clear and understandable language, and (iii) complies with all legal regulations. Businesses must clearly communicate within the privacy policy that no personal information or data collected during the online shopping process is misused by the online business. By applying this to the online business, consumers will not only place their trust in the business, but will also feel that their privacy is of great concern to the business.
- Businesses must approve of online third parties (such as online insurance agencies, online payment platforms and online security agencies) before agreeing to their involvement in the online shopping process. Consumers must not only be made aware of these parties, but also be informed on what the businesses' intentions are of using these parties. Usage of any other parties can also be certified by institutions (such as banks, accounting firms and legal firms). Online businesses should make use of validated and known third party options. Consumers can be made aware of third parties by providing informed terms and conditions (Ts and Cs) of using the online business and a "click" option can be given for consumers to accept the

terms when opening the online store. By applying this to the online business, consumers will not only feel that their risk of using online stores is being reduced but they will also feel protected by the measures taken.

5.5.4 Recommendations regarding e-loyalty

The online businesses within the current online shopping industry provide consumers with endless interchangeable product and service options to choose from (Vijay *et al.*, 2019:2). It is significantly important for an online business to value the continued return of an online consumer (Saharana *et al.*, 2017:15). Loyalty in the aspect of consumers' behaviour is not only a competitive advantage but also strives to be a potential of differentiation for an online business (Cossío-Silva *et al.*, 2016:1621). Within the concept of internet marketing, e-loyalty (electronic loyalty) is known to be those consumers who are loyal towards an online business (Shien & Yazdanifard, 2014:43). Recommendations regarding e-loyalty include:

- Online stores should build a social media community to enhance recommendations. Businesses can make use of social media to enhance consumers' recommendations on online shopping by creating a community where the business interacts and engages with its consumers' online presence via social media. Consumers who make an effort in recommending the online business via social media should not go unnoticed by the business, but should rather be used to build a strong relationship to increase e-loyalty. Businesses can implement a loyalty-level scheme where consumers earn points as they not only shop online, but also recommend the online business to others via social media (for example: online businesses can encourage consumers to share on social media their unboxing, usage, or recommendations based on their level of satisfaction with the product or service, and then by "tagging" the online business earn a 5% discount on their next purchase). Online businesses can take their engagement with consumers even further by making use of influencer marketing via social media, where endorsements are given to chosen loyal consumers or "influencers" who recommend the online business on their social media platforms (such as: Facebook, Instagram, TikTok, and YouTube). Endorsements can include (i) a unique discount code that their followers can use when purchasing from the online business, (ii) following a percentage of that sales based upon their unique code, and (iii) finally, lead to becoming an ambassador for the online business through the recommendations.
- Creating an online environment where consumers can freely pursue their needs and wants in such way that it becomes consumers' preferred shopping method where these consumers are then also sustained over the long term. Consumers' loyalty can highly depend on the perceived ease of use and usefulness of the online store, their fear towards an event (such as the COVID-19 pandemic), and their privacy and trust concerns.

The above recommendations (§5.5.1 to §5.5.4) came to light based on the main results of this research study. The continued growth of the online environment, and the usage of online shopping should be taken advantage of. It is largely recommended to businesses to not only have an online presence, but also to have an online store that consumers can use to satisfy their needs and wants, which can lead to the continued purchases and an e-loyal consumer.

5.6 LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

This study aimed to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour. This study had limitations, as may be expected in all research; yet this opens up possibilities for future investigations.

Limitations of this research study included the use of the snowball sampling method. This method enabled for the online advertisement (with an active link) to be placed on Facebook and Instagram. However, the advertisement had to be reshare by the researcher multiple times as the response rate was very low. One of the main limitations of this method is that the control that the researcher has is very limited. Furthermore, only two social media platforms were utilised to distribute the link to the questionnaire. Expanding social media platforms to TikTok, Twitter, Snapchat and including WhatsApp status might have had a significant influence on the time it took to gather an appropriate number of responses.

Another limitation was not including a more specific demographic profile where a clear distinction could be made between age, and whether consumers were first-time online shoppers during the COVID-19 pandemic, or whether they were returning online shopping users. This could have enriched the results of the research study and drawn comparisons between consumers' online shopping behaviour in different age groups.

Subsequently, there are also opportunities for future research as a result of this study. Firstly, the research can be expanded at an international level where online shopping behaviour (measured against the four constructs resulting from this study) of consumers in other countries can be determined. Lastly, this study was done during the COVID-19 pandemic and it is important to conduct the same study after the COVID-19 pandemic to determine whether there will be any differences in their online shopping behaviour and e-loyalty towards online stores post-pandemic.

5.7 CONCLUDING REMARKS

In conclusion, the COVID-19 pandemic has had a significant impact on South African consumers' online shopping behaviour. As governments around the world implemented strict rules and regulations to minimise and manage the rapid spread of the virus, consumers had to rely on online

shopping to satisfy their most basic and essential needs, as it was not always possible to visit physical stores. For many consumers, it might have been their first-time shopping online; however, it is also true that some of these consumers will continue shopping online post-pandemic. As such, it is clear that their loyalty toward online stores has also increased. The data from this study can assist marketing managers in creating strategies that will not only benefit the customers when they shop at particular online businesses, but also attract new customers and increase existing customers' loyalty to the online store to guarantee repeat visits and purchases. This could result in an expansion of the market share of the online store.

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APPENDIX A: ONLINE ADVERTISEMENT

The online advertisement, used within the research study.

Research Study

DETERMINING THE INFLUENCE OF THE COVID-19 PANDEMIC ON CONSUMERS' ONLINE SHOPPING BEHAVIOUR

- M Ferreira

WOULD YOU LIKE TO PARTICIPATE IN A RESEARCH STUDY?

YES

Online Shopping

DO YOU MEET THE FOLLOWING CRITERIA?

- DO YOU CURRENTLY SHOP ONLINE?
- DID YOU PURCHASE ANY PRODUCTS OR SERVICES FROM AN ONLINE STORE DURING THE COVID-19 PANDEMIC?
- ARE YOU 18 YEARS AND OLDER?

if "YES"

YOUR PARTICIPATION IN THE ONLINE SURVEY WOULD BE OF GREAT VALUE FOR THIS RESEARCH STUDY. THE ONLINE SURVEY WOULD TAKE NO LONGER THAN 15 MINUTES TO COMPLETE.

MAKE SURE YOU ARE SIGNED IN TO YOUR GOOGLE ACCOUNT. PLEASE CLICK ON THE LINK ATTACHED TO THIS POST, TO COMPLETE THE SURVEY.

!! PLEASE BE SO KIND TO SHARE THIS POST ON YOUR OWN SOCIAL MEDIA ACCOUNT !!

Please note: All participation in this research study is anonymous!

FOR MORE INFORMATION CONTACT:

Mignon Ferreira: mignonfer@gmail.com | Dr Clarise Mostert: clarise.mostert@nwu.ac.za

APPENDIX B: QUESTIONNAIRE

Determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour

Informed consent

This survey forms part of a research study in Marketing Management at the North-West University (Potchefstroom Campus), with a specific focus on determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour.

Dear respondent

You are herewith invited to take part in a master's study. The purpose of this research study is to determine the influence of the COVID-19 pandemic on consumers' online shopping behaviour. The information gathered through this survey will be utilised to make recommendations to business owners and managers regarding the marketing management of online businesses for future sustainability within the South African context.

Ethics clearance has been obtained from the North-West University (NWU) (ethics number: NWU-00965-21-A4). Your contribution to this research study could potentially benefit future online business owners and managers, and therefore your experiences and perceptions of online shopping would be of great value.

Please take note of the following important information:

- Your participation in this research is entirely voluntary, and no form of compensation will be provided.
- Confidentiality of all information enclosed in this questionnaire is guaranteed, no personal questions that can identify any respondent are included. The individual responses will form part of a collective profile.
- Your information will remain anonymous. Please do not include any personal details in your response, such as your contact information. Individual responses will not be identified, but the results will rather be presented in aggregate.
- All data obtained through this questionnaire will be published in the form of a master's dissertation and peer-reviewed academic publications (journal articles and/or conference papers). All data obtained will be stored on a secure server at the NWU.
- The questionnaire should take approximately 15 minutes to complete.
- If at any time you feel that you want to halt participation, you are welcome to do so. Your withdrawal from participation will not be to your disadvantage in any way.
- To avoid that respondent accidentally skip a question, the online questionnaire will require you to answer all questions in a relevant section before you can go to the next page or submit the form.

If you are comfortable with the content and you have no objections, please click on the link to complete the questionnaire. By completing the declaration of participation and the questionnaire, you consent that the information may be used for research purposes.

Thank you for your assistance – it is truly appreciated.

For any further information, feel free to contact us:

Mignon Ferreira mignonfer@gmail.com | Dr Clarise Mostert clarise.mostert@nwu.ac.za

* Required

Declaration of participation

By accepting the statement below, I agree to partake in this study titled:
Determining the influence of the COVID-19 pandemic on consumers' online shopping behaviour

I declare that:

1. I have read the above description of this research study and I am aware of the purpose of the study.
2. I voluntarily agree to take part in this study and by continuing and completing this questionnaire I consent to the information being used in collective form.

Please indicate whether you accept or do not accept the declaration of participation: *

Mark only one oval.

- I accept the declaration of participation
- I do not accept the declaration of participation

Screening Question

Have you ever purchased any products or services from an online store or app during the COVID-19 pandemic? * *Mark only one oval.*

- Yes
- No

If you did not purchase any products or services from an online store during the COVID-19 pandemic, you do not have to complete the rest of the questionnaire. If you did purchase products or services from an online store during the COVID-19 pandemic, please proceed to the next section.

Please confirm that you are 18 years of age, or older by selecting the applicable option below. *

Mark only one oval.

- I confirm that I am 18 or older
- I am younger than 18

Please continue to the following section by clicking **NEXT**

Section A: Online shopping behaviour

Please answer all the questions in this section.

A1. If you answered YES in the previous question and are 18 years or older, please indicate the type of items you purchase online. (Please indicate all applicable options) *

Check all that apply.

- Sport (event or equipment)
- Traveling (flights, accommodation or experiences)
- Fashion (event, clothing or shoes)
- Health (event or products)
- Beauty (event or products)
- Food
- Electronic devices
- High-tech items (cars)
- Other

A2. If you indicated 'other' in the previous question, please specify the types of products you purchased that were not listed above.

Please continue to the following section by clicking **NEXT**

Section B: The influence of the COVID-19 pandemic on consumers' online shopping intentions

Please answer all the questions in this section.

Please indicate the extent to which you agree or disagree with each of the following statements by using the scale below:

(1) Strongly disagree; (2) Disagree; (3) Agree; (4) Strongly agree

B1. During the COVID-19 pandemic, I shopped online because I felt afraid of the pandemic. *

Mark only one oval.

	1	2	3	4	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

B2. During the COVID-19 pandemic, I shopped online because I felt panic upon facing the pandemic in a physical store. *

Mark only one oval.

	1	2	3	4	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

Appendix B: Questionnaire

B3. During the COVID-19 pandemic, I shopped online, because I feared the virus. *
Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B4. I shop online because I fear for the health of those I might be in close contact with during the COVID-19 pandemic. *
Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B5. I shop online because I have a concern about limited healthcare during the COVID-19 pandemic. *
Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B6. I shop online because I fear for my own health during the COVID-19 pandemic. *
Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B7. I shop online because I fear the impact that the COVID-19 pandemic has on the future of local economic conditions. *
Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B8. I shop online because I fear that other individuals do not obey the rules and restrictions. *
Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B9. I shop online because I fear the limitations placed on my movement because of the restrictions in place to curb the spread of the COVID-19 pandemic. *
Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B10. I enjoy shopping online during the COVID-19 pandemic. *
Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B11. I shop online during the COVID-19 pandemic to avoid a physical store environment. *

Appendix B: Questionnaire

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B12. I shop online during the COVID-19 pandemic because of the wide variety of goods and services offered by online stores. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B13. I recommend online shopping during the COVID-19 pandemic to my friends. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B14. Online shopping during the COVID-19 pandemic is easy to use. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B15. It is easy to understand online shopping websites, when I shop online during the COVID-19 pandemic. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B16. It is easy to master online shopping during the COVID-19 pandemic. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B17. Online shopping interactions during the COVID-19 pandemic are easy and flexible. *

Mark only one oval.

1 2 3 4
Strongly Disagree Strongly Agree

Appendix B: Questionnaire

B18. Online shopping during the COVID-19 pandemic is clear and understandable. *
Mark only one oval.

1 2 3 4

Strongly disagree Strongly agree

B19. Online shopping is useful for purchasing items during the COVID-19 pandemic. *
Mark only one oval.

1 2 3 4

Strongly disagree Strongly agree

B20. Online shopping is useful during the COVID-19 pandemic because it is easy to search for items. * *Mark only one oval.*

1 2 3 4

Strongly disagree Strongly agree

B21. Online shopping during the COVID-19 pandemic is useful because it improves my performance when searching for and purchasing items. *
Mark only one oval.

1 2 3 4

Strongly disagree Strongly agree

B22. Online shopping during the COVID-19 pandemic is useful because it increases the variety of shopping items I am exposed to in the online store. *
Mark only one oval.

1 2 3 4

Strongly disagree Strongly agree

B23. Online shopping during the COVID-19 pandemic is useful because it enhances my effectiveness when searching for and purchasing items. *
Mark only one oval.

1 2 3 4

Strongly disagree Strongly agree

B24. When shopping online during the COVID-19 pandemic, I trust that my personal information is kept private by the online store. *
Mark only one oval.

1 2 3 4

Strongly disagree Strongly agree

Appendix B: Questionnaire

B25. When shopping online during the COVID-19 pandemic, I trust that any third parties used by the online store protect me against any possible risks (such as personal information leakage, credit card fraud, etc.) if something goes wrong with my online purchase. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B26. When shopping online during the COVID-19 pandemic, I am confident that online shopping stores keep my personal and banking information private. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B27. When shopping online during the COVID-19 pandemic, I trust that any other parties used by the online store have the responsibility to keep my personal and banking information private. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B28. I will continue to purchase items from online stores during the COVID-19 pandemic. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B29. Online shopping will be my preferred shopping method after the COVID-19 pandemic. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B30. I will shop online more often after the COVID-19 pandemic. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B31. I will recommend online shopping to other individuals after the COVID-19 pandemic. *

Mark only one oval.

1 2 3 4
Strongly disagree Strongly agree

B32. I will positively report things about online shopping to other people after the COVID-19 pandemic. *

Mark only one oval.

Appendix B: Questionnaire

	1	2	3	4	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

Thank you for your participation in this research study.

Please press '**Submit**' when you are done with the online questionnaire.

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