# An analysis of e-tailing opportunities in the South African sports business industry


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# Abstract

The study investigated the opinions expressed by consumers in an e-tailing environment in the sports business industry. Certain influencing factors were identified through a literature study of consumer behaviour and decision-making of these consumers. This was done in an attempt to understand the e-tailing consumer better to improve online marketing campaigns within the sports business e-tailing environment of South Africa.

The primary data were collected using a convenience sampling strategy. Respondents were asked to complete an online questionnaire published using a link. The questionnaire consisted of 4 sections with a total of 42 questions. 163 participated in the survey and 157 fully completed it. The initial analysis proved that the data was adequate and sufficient to conduct a factor analysis where it was decided to use confirmatory factor analysis.

A new framework to measure the factors that influence e-tailing adoption in the South African sports business industry was established. 5 out of 9 factors were found to contain sub-groups of influence, which suggests that, certain questions related to those factors needed to be improved or rephrased to measure the single factor more accurately.

The reliabilities of all the identified influential factors were measured using Cronbach's alpha coefficient and extracted satisfactory coefficients. Website Features, Service Quality, and Website Functionality were regarded as the most influential factors related to e-tailing adoption. Trust and Security were recognised as a concern among respondents, indicating that they are not comfortable providing personal as well as credit card information.



**Keywords**: e-tailing, e-commerce, online consumer behaviour, influential factors

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# CHAPTER 1: NATURE AND SCOPE OF STUDY

## 1.1 Introduction

Imagine a future in which a device connected to a home computer can print a hamburger or one's favourite pizza. Such a future might have sounded farfetched during the industrial revolution, but the digital age made this object of one's imagination a reality. The digital age, also known as the information age, saw Africa's Internet usage rapidly grow with 73%, from an estimated 4.5 million users in 2000 to an estimated 335 million users in March 2017 (Internet World Stats, 2017). Africa contributes 16% of the world population and a mere 9.1% of the world's Internet users (Internet World Stats, 2017). The information age not only saw increased Internet usage, but also created a notion of "digital revolution" that is creating disruptive innovation on most contemporary business models (Christensen, Raynor & McDonald, 2015). South Africa as the fourth largest contributor of Internet users in Africa, with an 8.5% contribution to Africa's Internet usage, has also seen incremental growth in Internet users from only 2.4 million users in 2000 and just over 28.5 million users in 2016 (Internet World Stats, 2017). With an estimated population of 55 million inhabitants, this is a penetration percentage of 52%.

The constant expansion of Internet user bases opened up a whole new world and platform for conducting business known as e-commerce, or more commonly known as online shopping or e-tailing. The tempo of e-tailing is increasing worldwide, and it is the fastest growing retail market in Europe and North America (Prinsloo, 2016). Europe's e-tailing is expected to attain the 250 billion Euro mark in 2017, and the US e-tailing is looking just as strong with an expected sales value of over $400 billion in 2017 (Prinsloo, 2016). Compared to the two Northern hemisphere online sales giants, the South African online market is still very small with an estimated value of R8.9 billion per annum (Prinsloo, 2016). E-commerce penetration in South Africa is still relatively low by global standards, but it is expected that the number of online shoppers in South Africa will rapidly grow by double digits in 2017, making the country a significant e-commerce force (Brown, 2017). These developments are gradually transforming e-commerce into a mainstream business activity while at the same time online consumers are maturing; e-tailers realise the importance and urgency of a professional and customer-oriented approach. Although e-commerce has seen radical growth over the last decade, various researchers indicate that many e-tailers still do not completely understand the needs

and behaviour of the online consumer, while many of them continue to struggle with effective ways to market and sell products online.

## 1.2 Problem Statement

Understanding the key influencing factors of e-tailing as well as the specific behavioural patterns of online consumers is a priority for all practitioners of the fast expanding e-commerce arena. The substantial research endeavour comes as no surprise seeing that the world of Internet has seen continuous and rapid expansion regarding user numbers, transaction volumes, and business penetration (Panda & Swar, 2013). Distinguishing the factors that encourage and influence e-tailing is very important to identify what is needed to develop e-tailing (Baubonienė & Gulevičiūtė , 2015). Panda and Swar (2013) point out that many traditional stores in India are entering into e-tailing, but in this emerging stage of e-tailing, it is still very unclear as to what drives e-tailing behaviour. To be successful in providing an effective and lucrative platform for e-tailing, one needs to understand what aspects influence the online consumers' buying behaviour (Panda & Swar, 2013). Considering the abovementioned opinions, it is quite apparent that e-tailing is becoming more attractive to the general consumer, and companies that want to be successful e-tailers, need to spend more time to understand their potential customers' purchasing behaviour and decision-making process, to gain a sustainable competitive advantage. In a recent study conducted in South Africa, the most important reasons or motivation for engaging in e-tailing are mainly driven by convenience. Online shopping offers a variety of local and worldwide choices; it is also much easier to perform price comparisons, and it is regarded as much faster than traditional retail shopping (Prinsloo, 2016).

The South African study also revealed that consumers still want to touch and feel products, and regarded this as one of the key barriers to e-tailing (Prinsloo, 2016). This, along with uncertainty regarding the quality of the product, timely delivery or non-delivery of products, correct product sizes, and return policies were some of the major concerns with regards to e-tailing (Prinsloo, 2016). Strangely, credit card security concerns decreased rather significantly, since the last survey in 2013 (Prinsloo, 2016). Although recent studies have shown that online shopping in the US and UK is still rapidly increasing (Prinsloo, 2016), few studies have been conducted in South Africa with its unique challenges, and even fewer in a sports business industry context. With such a diverse population, sensitive background and a different business environment

to that of the United States and the United Kingdom, information on how e-consumers in South Africa perceive the trend of e-tailing is limited and needs more exploring. The constant evolution in the way in which e-tailing is presented to consumers and the ever-changing way e-consumers conduct purchases opens up further opportunities to investigate the world of e-tailing within a South African context.

## 1.3 Objectives

The primary objective of this study is to evaluate the factors that influence the adoption of online shopping in the sports business industry of South Africa. The following secondary objectives are formulated to achieve the primary objective:

- Identify, using a literature review, the influences, dimensions, and drivers of online shopping.
- Assess the relative importance and relevance of each of the identified influences.
- Identify the factors that encourage or discourage South African e-consumers to use online shopping.
- Identify the critical success factors for e-tailing.
- Comprehensive demographic profile to answer the questions: who, what, where, when, how, and frequency.

## 1.4 Research Methodology

The study comprises a broad literature review and an empirical investigation. Quantitative research, using the survey method, will be applied to the empirical portion of the study. It is evident that more and more researchers are making use of the Internet to conduct their research and collect primary data (Kotler & Armstrong, 2014). Therefore, respondents who were classified as users of sports goods were asked to complete an online questionnaire encompassing the influencing factors that were identified from the literature.

### 1.4.1 Literature review

The purpose of the literature review is to examine past research and current trends and information with the use of several primary and secondary literature resources. The primary literature source for this study will be the latest and most recent online articles and published journal articles. The world of e-business is changing and developing almost daily. Thus the use of online articles is a necessity to stay updated with the latest developments and trends.

Reviewing South African and international literature, including relevant textbooks, journal articles, business articles, academic journals, newspaper articles, the Internet, and online academic databases, will be used as secondary data sources to support the study.

### 1.4.2 Empirical investigation

The research population for this study comprised members of Facebook groups within the sports participation arena of South Africa. Non-probability sampling in the form of purposive sampling within this population will be used to gather a sample of this population. The purposive sample will be selected based on the definition of the sports business industry within this population group and based on the accessibility of these groups to the researcher within the available time and financial constraints. This particular study will be performed through the combination of qualitative and quantitative research. A survey approach will be followed through the publication of an online questionnaire. A questionnaire will be developed on a 4-point Likert scale focused on the key issues that need to be addressed. The questionnaire will capture key elements from the literature study that will determine and evaluate the factors that influence the adoption of online shopping in the sports business industry of South Africa. The questionnaire will be available online via a link shared with members of the various identified Facebook groups. Semi-structured interviews will also be conducted with a selected few businesses within the sports business industry in South Africa, to qualify and support the results of the questionnaires. Information will be interpreted based on the framework that will be developed from the literature study, assessing the factors that influence the adoption of online shopping.

### 1.4.3 Sample type

A structured questionnaire format will be applied, whereby group administrative members of the appropriate Facebook groups were contacted, and permission was requested from them to carry out the survey. The group admin members will be informed that the questionnaire is to be completed on a voluntary basis only and that no group member is to be forced into completing the questionnaire. After that, the group members will be requested, via an online link, to complete the self-administered questionnaires, which will be collected online by the researcher.

### 1.4.4 Sample size

The study aimed to achieve a sample size of 200 Facebook group members split equally between golf, hunting and sport shooting members.

### 1.4.5 Measuring instrument and data collection method

A structured self-administered questionnaire was utilised to gather the required data for this study. The participants were requested to complete a questionnaire consisting of four sections. The first section (Section A) gathered the participant's demographic data. The second section (Section B) included the items about Internet usage and online shopping experiences. Section C gathered information regarding the respondents' sports participation, and Section D contained the identified factors that influence the adoption of online shopping in the sports business industry of South Africa. The questionnaire included a cover letter describing the nature and purpose of the study and requested participation. To ensure reliability, the questionnaire was piloted on a convenience sample of 30 Facebook group members that did not form part of the sampling frame. The results of the pilot test were coded and tabulated accordingly, and the results were considered when adopting the final questionnaire.

### 1.4.6 Statistical analysis

The following statistical methods were used in the empirical data sets:

- Reliability and validity analysis
- Descriptive analysis
- T-Tests
- Effect sizes

## 1.5 Scope of the study

Because internet usage and e-tailing are showing rapid growth as stated above, this study will focus on individuals who are familiar with the Internet and who find themselves in the e-tailing domain of sports equipment and apparel products specifically.

## 1.6 Limitations of the Study

Because non-probability sampling in the form of purposive sampling is selected, it is not necessarily representative of the selected population. Owing to the research schedule and financial constraints, it is not possible to select a representative sample from the

entire sports business industry of South Africa. Active and participative Facebook groups representing golf, hunting and sport shooting advertising platforms will, therefore, be selected to conduct the research. These groups include The Golf Club, Golf Lovers Market, African Long-range Hunters, Long Range Shooting SA, SA Howa Jagters, Jag Bargains, SA Jag Koop en Verkoop.

## 1.7 Contribution of the study

This study could contribute greatly to the future strategic marketing of many businesses that want to increase or strengthen their online presence, or businesses that want to focus solely on e-tailing within the same line of tangible, known products. This study aims to evaluate whether improving the key identified factors that influence online shopping can increase the adoption of online shopping.

## 1.8 Chapter Division

The chapters of this study will be structured as follow:

### Chapter 1 – Introduction

This chapter introduces the Internet as a communication platform and discusses the growth thereof over the last few years. Going hand in hand with growing Internet usage is the growth in e-tailing which is also discussed briefly. By citing a few verified sources, an indication is given that there is an opportunity for more studies within this field, which leads to the problem statement as well as a brief description on what the research and research subjects will entail.

### Chapter 2 – Literature Study

This chapter presents a brief overview of the sports business industry of South Africa and the theories, trends and developments in the e-tailing environment. An in-depth discussion follows on consumer behaviour and the methodology behind their purchase-decisions in an online context. The factors that influence online shoppers in similar previous studies are also explored to obtain a better understanding of the factors this study focused on.

### Chapter 3 – Research methodology and results

Chapter 3 explains the strategy used to obtain the data to study the objectives of this dissertation. The chapter also describes the various tests done to ensure the data are suitable for factor analysis and statistical interpretation. The results are displayed and discussed afterwards, and the reliability thereof is also discussed. The chapter then

concludes by discussing the importance of the research variables.

### Chapter 4 – Conclusions and recommendations

Chapter 4 concludes this study, and various recommendations are made for possible future research areas. Limitations are also discussed, and the dissertation is concluded with a summary thereof.

## 1.9 Ethical considerations

The research study did comply with the ethical standards of academic research, which among other things protect the identities and interest of participants, and guaranteed confidentiality of the information provided by the participants. The participation will be voluntary, assuring that no person or institution will be forced to participate against his or her own will.

## 1.10 Summary

Chapter one highlights the phenomenon of Internet user growth and a new shopping channel that emerged from it with no indication of growth slowing down. Numerous studies have been conducted in an attempt to understand the behavioural patterns of the so-called e-consumers better to allow for more efficient and effective marketing strategies, but not so in a South African context. Nine popular factors were identified through previous literature, and the significance of each is briefly touched on. Chapter one concludes with a chapter division and a description of the construct of each chapter to follow.

# Chapter 2: Literature Review

## 2.1 Introduction

The world has seen significant changes in almost all aspects of life due to sustained technological innovations. The introduction of internet-based electronic commerce over the past two decades has given businesses an unparalleled marketing opportunity. Brick and mortar businesses are often finding it problematic to compete with web-based businesses due to the lower operating costs and superior flexibility that web-based businesses possess (Investopedia, 2017). The potential market size for web-based businesses are continuously growing as Internet usage across the globe is experiencing constant growth (see: Chapter 1). New technologies are developed every single day to make life easier, and these developments resulted in the alteration of the world from traditional commerce to e-commerce. The main reasons for these developments are due to technological innovations, like faster data transmission technologies and improved mobile devices equipped with enhanced computing capacity, improved data storage and superior user-interface. The growing penetration of mobile phones within society, as well as the integration of world economies, has also increased the need for mobility (Iqbal, 2013:2). The increased development of “smartphones” (mobile devices with computer-like attributes) is also causing the development of new concepts of innovative mobile services, collectively described as m-commerce (Cassavoy, 2017). The core focus of this chapter is to outline an in-depth understanding of the e-tailing industry. The literature review will address the major topics related to e-tailing which includes:

1. Evolution of the web
2. E-commerce in South Africa
3. Electronic markets
4. Major e-commerce trends
5. Mobile commerce
6. Virtual reality
7. Online consumer buying behaviour
8. Online consumer decision-making

Due to the constant evolution of the technological arena, the chapter will concentrate on the most recent publications.

## 2.2 Evolution of the web

Bruwer and Rudman (2015:1039) describe Web 1.0 as a platform with inadequate interactive capability between the information and the consumer. The information could only be published in a static format using only text and images. The content was also limited to view only, but not created, modified, or shared by consumers. Typical protocols related to this first generation were Hypertext Transfer Protocol (HTTP) and Hypertext Markup Language (HTML). The typical function of the HTTP protocol was to transfer information between a web server and a web browser. The HTML protocol, on the other hand, communicates with the browser and notifies it how to display the text and images transmitted by the HTTP protocol. Baltzan (2015:198) explains that e-commerce (buying and selling of goods) and e-business (e-commerce including all internal and external business operations, such as sharing real-time information) as part of Web 1.0. Bruwer and Rudman (2015:1040) delineate that the main transformation between Web 1.0 and Web 2.0 occurred with the ability of consumers to create, share and interact with the content on the Web. Baltzan (2015:215) also refer to Web 2.0 as Business 2.0 and refer to Business 2.0 as the next generation of Internet use characterised by new assets such as collaboration, sharing, and free. Business 2.0 foster user participation where technical skillsets are no longer necessary to actively participate in the World Wide Web, which eradicates barriers to entry for online businesses.

Aziz and Madani (2015:246) refer to Web 2.0 as the “social web” that represents the shift from static to highly dynamic, participative, and collaborative Web with the most important feature being the support of group interaction on the Web. Web 2.0 is taking advantage of open source (software where the source code is available for free for any third party to review and modify) applications like Mozilla which offers web browsers and email software free of charge (Baltzan, 2015:215). Examples of Web 2.0 technology include Google Web Toolkit (GWT), blogs, really simple syndication (RSS), Flex, tags, mashups, social networking sites, folksonomies, video sharing sites, hosted services, and wikis. Isaias *et al.* (2015:17) indicate that Web 3.0 refers to connecting intelligence and is known as the Semantic Web, which means it identifies Web-based data so that searches can be more effective, and the information is part of the network. Web 3.0 is an extension of Web 2.0 technology and is considering the future of every sector, including business. Web 3.0 technology is far more sophisticated, and it can deliver structured, relevant, and specific data to the user. Web 3.0 is the current

embryonic version of the web that uses “meta-data” to gather, analyse, structure, integrate, and disseminate data from various sources to develop intelligent responses to the operator (Aziz & Madani, 2015:246). Furthermore, it included refined properties, which were essential machine encouraged tools in comprehension of data, for example, natural language, micro format, machine learning and data mining. Table 2.1 (next page) sums up the detailed differences between the three web generations. The main differences between them are:

- Web 1.0: read the only web that focused on content creativity of producer
- Web 2.0: focused on content creativity of users and producers
- Web 3.0: linked data sets are the main focus.

Aziz and Madani (2015:246) explains that the insurgency of Web 1.0 to Web 3.0 produced the fantasy of having an interaction of a symbiotic web amongst humans and machines as far as the Ultra-Intelligent Electronic Agent, Web 4.0 (also termed WebOS). It could potentially be huge and capable interfaces that are mind controlled utilising Web 4.0, where the machines would be more brilliant in building all the more telling interfaces in reading, writing, execution and simultaneousness. Also, it will surmise a monstrous web of smart associations that will be like the human brain. There is no correct definition for this age, yet the immense improvements of the web so far will guarantee more advancements and application to be included utilising manufactured intelligence. For example, going to a famous website like amazon.com, more than once, the Web will remember you and furnish you with related advice. The main goal of Web 4.0 is thus to migrate the online functionality into the physical world.

**Table 2.1: Summary of web generation differences**

| Web 1.0 | Web 2.0 | Web 3.0 |
|---|---|---|
| 1991 Informational Web | 2004 Social Web | 2006 Semantic Web |
| Informational Web | Social Web | |
| Tim Barnes Lee | Tim O'Reilly | Tim Berners Lee Read, Write & Execute Engagement |
| Read Only | Read and write | |
| Distribution | Communication | Connect Knowledge |
| **Connect Information** | Connect people | Connect Knowledge |
| Connect Information Text and graphic based flash | 2D portals, Wikis, videos, personal publishing | 3D portals, avatar representation, integrated game, education and business |
| Content published by providers to consumers | Content published by people or companies and other people can consume and publish content to other people, such as YouTube, flicker. | Applications built by people or companies so that others can interact with it and I-publish services, such as Facebook, Google maps. |
| Search engines retrieve macro contents very fast, but many times results are inaccurate or more than users need. | Search engines retrieve tags with micro contents. The tagging is manual and covers small percent of the WWW. It tags everything: pictures, links, events, news, blogs, audio, etc. | Search engines retrieve micro content texts and tag automatically, so it translates billions of Web 1.0 macro contents into micro contents, resulting in the more precise search. |
| The content was static, one-way publishing without any real interaction between readers or publishers. | It is a two-way communication through social networking. | It is undefined and delivers a Personalized web experience to you. |
| The web in the beginning when it was first developing web 1.0 | Sophisticated user interaction with web pages. | More interactive with users, leading to a kind of artificial intelligence. |
| Personal web sites | Blogs | Semantic blogs such as Semi Blog and Haystack |
| Content Management system | Wikis, Wikipedia | Semantic Wikis: Semantic Media-Wiki |

Source: (Aziz & Madani, 2015:247)

## 2.3 Traditional Commerce

Iqbal (2013:2) describes traditional commerce as the exchange of products or services between two parties, which includes all the activities, and processes involved between parties to complete the transaction. The barter system is the earliest form of traditional commerce, dating back to 6000 BC (mint.com, 2017). Traditional commerce can also be seen as a business that interacts face-to-face with its customers from an office space or store that the business owns or rents. All traditional commerce components including interaction, business processes, and implementation are of physical nature and require human resources to fulfil the various tasks.

## 2.4 E-commerce

The management consultant, Peter Drucker, predicted in 2002 already that e-commerce would considerably impact the way in which business will be conducted in future (Turban *et al.,* 2017:6). Drucker's forecast very quickly became a reality as the world is not only embracing e-commerce but also adapting to it and looking for ways and means to improve it on a daily basis. For the past few years, electronic commerce (e-commerce) has become a buzzword for businesses all over the world. E-Commerce is also the reason for an upsurge in usage of Information and Communication Technologies (ICT) across the globe. E-commerce has simplified business processes and has increased efficiencies in operations through the amalgamation of various processes, such as Electronic Data Interchange (EDI), electronic mail (e-mail), World Wide Web (WWW) and Internet applications (Iqbal, 2013:4). E-commerce offers ways to exchange information between individuals, organisations, countries, and most vital of all, among other computers, no matter where they are situated. Simply put, e-commerce is the transfer of business from bricks and mortar onto the WWW (Mahajan & Agarwal, 2015:48). Electronic commerce refers to using the Internet and other networks to purchase, sell, transport, or trade data, goods, or services (Turban *et al.,* 2017:6). E-commerce is often solely viewed as the online buying and selling of goods and services, and therefore the term e-business was also introduced. E-business signifies a broader definition of electronic commerce to include all kinds of online business (Laudon & Traver, 2016:51). Electronic business, or e-business, is often used as a possible substitutable term for e-commerce, but it is in fact more concerned with the transformation of key business processes through the use of Internet technologies (Iqbal, 2013:4). Table 2.2 summarises the main differences between traditional commerce and the more recent e-commerce. It specifically points out that an entire

commercial function like purchasing a product has become entirely digital, from the very first step of acquiring product information right through to the last step of making payment.

**Table 2.2: E-commerce vs Traditional Commerce**

| Action | E-commerce | Traditional commerce |
|---|---|---|
| Acquire product information | Web pages | Magazines, flyers, online catalogues |
| Request item | E-mail | Printed forms, letters |
| Check catalogues, prices | Online catalogues | Catalogues |
| Check product availability and confirm price | E-mail | Phone, fax |
| Generate order | E-mail, web pages | Printed form |
| Send /Receive Order | E-mail, EDI | Fax, mail |
| Prioritize order | Online database | |
| Check inventory at warehouse | Online database, web pages | Phone, fax |
| Schedule delivery | E-mail, On-line database | Printed form |
| Generate invoice | Online database | Printed form |
| Receive product | Shipper (unless it is electronic) | Shipper |
| Confirm receipt | E-mail | Printed form |
| Send/Receive Invoice | E-mail, EDI | Mail |
| Schedule payment | EDI, On-line database | Printed form |
| Send /Receive Payment | EDI | Mail |

Source: (Iqbal, 2013:8)

### 2.4.1 E-commerce concepts

#### *2.4.1.1 Pure vs Partial e-commerce*

There are three major activities involved in e-commerce:

- Ordering and payments

- Order fulfilment
- Delivery to customers

The above activities can all be done either physically or digitally, and the extent to which each activity is done physically or digitally delineates whether the e-commerce is pure or partial. Turban *et al.* (2017:6) explain that if all activities are digital, it is pure e-commerce, if none are digital, it can't be referred to as e-commerce, and if there are some of the activities that consist of at least one digital dimension, it can be described as partial e-commerce. For example, purchasing a golf club from a website is partial e-commerce, because the merchandise is physically delivered. However, buying an electronic book (e-book) or a software product is pure e-commerce, because the ordering, processing, and delivery to the buyer are all taking place digitally.

### 2.4.2 E-commerce organisations

Turban *et al.* (2017:7) refer to brick-and-mortar organisations as companies who only engage in physical business or offline activities as opposed to companies that only engage digitally and are referred to as virtual organisations. With the advent of increasing competitive pressures and Web technologies as an information source, the adoption of the term click-and-mortar or click-and-brick became a necessity for successful organisations (Otero *et al.,* 2014:729). Click-and-mortar is a business model that includes both online and offline operations, which usually include a physical store where customers can interact face-to-face, as well as a website that can offer customers the advantages of fast and convenient online transactions (Investopedia, 2017).

### 2.4.3 E-commerce in South Africa

According to the Online Retail in South Africa 2016 report, e-tailing in South Africa will reach at least 1% of overall retail in 2016 (Hubbard, 2016). The report indicates that e-tailing maintained a growth rate of more than 20% since 2001 (Hubbard, 2016). Kevin Tucker, CEO of PriceCheck – Africa's largest product discovery and comparison service, supported this statement (IT NEWS AFRICA, 2017) when he noted that e-commerce, as a global trend will see an upsurge in popularity and application among South African consumers in 2017. The South African online spend is expected to reach R46 billion in 2017, which suggests a growth of 24% from last year (Brown, 2017). PayPal and the research specialist Ipsos' third annual cross-border commerce report

suggest that South African online spend is expected to reach R54 billion in 2018, which is a further 17% growth on the 2017 figures (Brown, 2017). Prinsloo (2016:1) indicates that it's not only South Africa that are experiencing aggressive e-tailing growth rates, but rather that the tempo of e-tailing is continuously increasing, to the extent that it is the fastest growing retail market in Europe and North America. Europe's e-tailing is expected to reach the 250 billion Euro mark in 2017, and the US e-tailing is looking just as strong with an expected sales value of over $400 billion in 2017 (Prinsloo, 2016:1). Compared to the two Northern hemisphere online sales giants, the South African online market is still very small with an estimated total spend of R37.1 billion in 2016 (Business Events Africa, 2017).

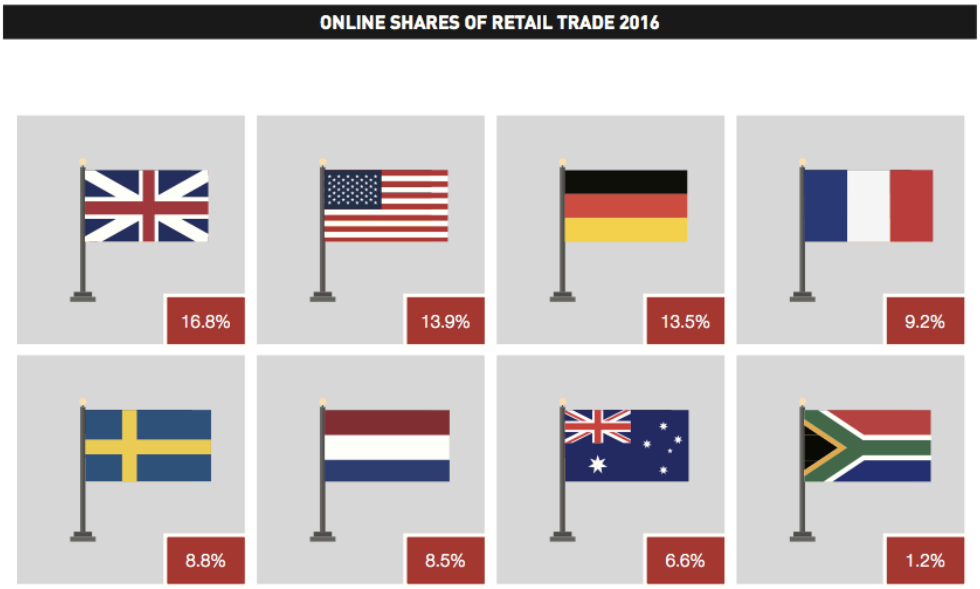


**Figure 2.1: Online retail share** (Prinsloo, 2016)

Prinsloo (2016:2) found that the United States is still the leader in e-tailing and demonstrates his findings by comparing the US with eight countries surveyed in Europe with a combined similar population. Figure 2.2 indicates that in the US, 63% of the general public tends to be e-consumers, compared to only 50% in Europe (Prinsloo, 2016:2). The average online expenditure per capita in the US, is $1 800 per annum, compared to the $1 460 in Europe (Prinsloo, 2016:2).


**Figure 2.2: Online shoppers (e-consumers)** (Prinsloo, 2016)

The U.S. Census Bureau (U.S. Census Bureau, 2016) supports these findings stating that US e-tailing sales in 2015 accounted for 7.5% of all retail sales. It is also important to mention that the report found that e-tailing in the United States is growing about 17% faster than the total of all commerce in the US (U.S. Census Bureau, 2016).

### 2.4.4 Electronic Markets (e-marketplaces)

Turban *et al.* (2017:7) indicate that e-commerce can also be presented in an electronic market (e-marketplace). An e-marketplace can best be described as an online environment where multiple third-party vendors provide goods, services, and information through a central platform (Khosrow-Pour, 2009:4). The e-marketplace operator or administrator processes and facilitates all transactions. Any individual can likewise open a private market, offering goods or services on the web. Electronic markets are associated with buyers and sellers using the Internet or to its partner inside associations like an intranet. An intranet is an internal network used by corporate or government institutions utilising Internet tools, such as Web browsers and Internet protocols (Turban *et al.,* 2017:7). An extranet is an alternative network environment where Internet technology is utilised to link intranets of various organisations in a secure method (Turban *et al.,* 2017:7). Kestenbaum (2017) simplifies the definition of an e-marketplace as a website or app that facilitates shopping from various sources. eBay is arguably the best example of an e-marketplace, whereby they don't own any inventory, but their business model is rather to present other people's inventory to a user and only facilitate the transaction. Due to the tangible convenience that e-marketplaces present, their popularity amplified over the last couple of years. Kestenbaum (2017) states that if one were creating a department store in 2017, it would in all likelihood be an online marketplace, which he refers to as Department Stores 2.0. E-marketplaces offer consumers the opportunity to digitally access multiple suppliers' inventory in addition to

real-time information regarding products being presented by means of the e-marketplace's site or an app (Kestenbaum, 2017). The assortments presented by these e-marketplaces are considerably wider than any conventional brick and mortar store could offer (Kestenbaum, 2017). One of the key attractions toward e-marketplaces is that consumers don't like using multiple apps from various single retailers, and would much rather download an app that offers a wider range of products than a single store could offer (Kestenbaum, 2017).

#### *2.4.4.1 Types of e-marketplaces*

Kestenbaum (2017) explains that there are three types of marketplaces:

- Vertical
- Horizontal
- Global

A vertical marketplace can be defined as a platform where products from numerous sources are sold, but they are all of the same types of product (Kestenbaum, 2017). TrueFacet.com is a very good example of a vertical marketplace because they only sell jewellery and related products. A horizontal marketplace can be described as a platform where many types of products are sold, but they all share similar traits or features (Kestenbaum, 2017). A good example of a horizontal marketplace is Panjo, where hobbyist and enthusiasts buy, sell and talk about rare and high-quality items (Panjo, 2017). A global marketplace is a platform where everything is sold, and the best example of such a platform is eBay. As one of the giants in the e-commerce arena, eBay has 167 million users with more than 1 billion items for sale, of which 80% are new. eBay's forecasted sales for 2017 is almost $90 billion worth of product (Kestenbaum, 2017).

#### *2.4.4.2 The growing popularity of e-marketplaces*

In practically every sort of web based business today, there is one thing making everybody move speedier and more proficient, and that is Amazon.com. Nothing is as encouraging as having a tremendous contender with practically boundless assets, innovative ability and potential. Amazon itself is a hybrid marketplace, offering products of its own and other organisations' while likewise giving a platform to consumers and venders to conduct business through Amazon, either individually or with Amazon's support of different sorts (Kestenbaum, 2017). There are numerous other hybrid

marketplaces and various organisations of all shapes and sizes, which include Walmart, which are now supporting the idea of electronic marketplaces and enabling clients to offer their items in emerging marketplaces. Well managed marketplaces adjacent to e-commerce platforms could potentially bring about increased consumer traffic and a wider range of product that motivates consumers to stay on one particular site, rather than drift away to other potential sites (Kestenbaum, 2017).

#### *2.4.4.3 Key success factors for e-marketplaces*

As retail chains' allure decays, marketplaces provide the impression of being a possible substitute for the ordinary multi-brand retailer. According to (Korotya, 2017), one of the fundamental aspects of developing a successful e-marketplace is that superior vendors attract more clients, while a developing customer base invites more vendors. Ian Friedman, Co-Head of Goldman Sachs Investment Partners, Venture Capital and Growth Equity team, suggested the following critical success factors for e-marketplaces (Kestenbaum, 2017):

- Create adequate liquidity on both buying and selling side of the marketplace
- Foster participation through superior levels of trust and transparency
- Establish both proactive and reactive instruments for managing inescapable issues that surface between marketplace partakers

In the retail business, it is quite a regular occurrence, for new retail ideas to detonate and multiply the way marketplaces are present. It is also quite common that after a period, there's a shakeout and just the best survive. In the long run, every single online marketplace will all need to demonstrate their resilience by offering productivity and one of a kind incentive to buyers. Those that can't will end up losing market share exactly the way retail establishments are currently, and inevitably those marketplaces will vanish. Those that can survive and contend viably against the big players will keep on creating value and profitability (Kestenbaum, 2017).

### 2.4.5 Multi-channel and Omni-channel retailing

The introduction of the online retail channel and continuing digitalisation has significantly changed traditional retail (Verhoef *et al.,* 2015:174). In some retail markets, the online channel has become so predominant that it’s become a disruptive development (Christensen & Raynor, 2003:1). A good example of a domineering online channel is the travel industry, which hosts some new online companies, such as

Booking.com, Expedia, and Tripadvisor. The travel industry, in particular, experienced major transformations among traditional travel intermediaries as opposed to the food-retailing industry that experienced a lesser amount of disruption (Verhoef *et al.,* 2015:174). Nevertheless, the business models of many retailers have been affected due to the change in retail mix and the continuous change in consumer behaviour as a result of the abovementioned developments. To counter these developments, many retailers have initiated multi-channel retail strategies. Multi-channel retailing can best be described as an e-commerce strategy that provides consumers with the opportunity to purchase goods and services through various channels beyond a company's website (BigCommerce, 2017). Considering issues like the administration of consumers across channels and the integration of the retail mix across channels has widened the extent of multi-channel retailing (Neslin *et al.,* 2006:95). Multi-channel retailing is entering a new phase due to further digitalisation in marketing and retailing (Leeflang *et al.,* 2014:1). The retail environment is experiencing constant change with the emergence of the mobile channel, tablets, social media, along with the integration of these innovative channels in e-tailing and traditional retailing (Verhoef *et al.,* 2015:175).

Rigby (2011:65) suggests that there is a migration from multi-channel to omni-channel retailing models. Brynjolfsson *et al.* (2013:9) maintain: "*In the past, brick-and-mortar retail stores were unique in allowing consumers to touch and feel merchandise and provide instant gratification; Internet retailers, meanwhile, tried to woo shoppers with wide product selection, low prices and content such as product reviews and ratings. As the retailing industry evolves toward a seamless "omni-channel retailing" experience, the distinctions between physical and online will vanish, turn the world into a showroom without walls*".

The definition of omni-channel can best be described as consistently providing unique and contextual brand experiences through multiple customer touch points, including bricks and mortar, social, mobile and web (Walker, 2017). Omni-channel is tied in with enabling consumers to buy wherever they are while imparting in a way that is tuned in to why they utilise a given channel and demonstrating attention to their stage in the consumer lifecycle (Walker, 2017).

### 2.4.6 Classification of e-commerce

E-commerce is so diversified that classifying the various types of e-commerce, will assist in understanding this diversified field. The nature of the transactions and the

relationship among participants are common methods of classifying e-commerce in the various types of e-commerce.

#### *2.4.6.1 Types of e – commerce:*

Some of the major types of e-commerce include the following (Laudon & Traver, 2016:58):

- Business-to-Business (B2B);
- Business-to-Consumer (B2C);
- Business-to-Government (B2G);
- Consumer-to-Consumer (C2C); and
- Mobile commerce (m-commerce).

**B2B e-commerce:** B2B e-commerce is simply defined as e-commerce between and among organisations, and involves organisations conducting e-procurement, supply chain management, network alliances, and negotiating purchase transactions over the Internet (Laudon & Traver, 2016:58). Organisations use e-commerce to reduce transactional costs of conducting business and to improve time and effort spent on conducting business. According to (Turban *et al.,* 2017:8), B2B is the largest category of e-commerce with 85% of e-commerce volume, and it is expected by most of the experts that B2B e-commerce will continue to grow faster than the B2C segment.

**B2C e-commerce:**

Business-to-consumer e-commerce, or commerce between organisations and consumers, involves customers gathering information; purchasing physical goods or tangible products such as books or other consumer products. Consumers can also purchase information or electronic goods such as software or digitalised content like e-books (Iqbal, 2013:6). A consumer shopping at Amazon.com is of this type, and since the sellers are typically retailers, this type of e-commerce is often referred to as e-tailing (Turban *et al.*, 2017:8). B2C is not only the second largest form of e-commerce, but it is also the earliest form of e-commerce, and its roots can be traced back to online retailing or e-tailing. Some of the classic B2C business models in South Africa are the online retailing companies such as takealot.com, Spree, and Zando.

**B2G e-commerce:**

Iqbal (2013:7) defines business-to-government e-commerce or B2G as commerce between companies and the public sector. It refers to the use of the Internet for public

procurement, licensing procedures, and other government-related operations. This kind of e-commerce has two features with the first feature being the public sector assumes a pilot or leading role in establishing e-commerce. The second feature entails an assumption that the public sector has the greatest need for making its procurement system more effective. Web-based purchasing policies increase the transparency of the procurement process and reduce the risk of irregularities. To date, however, the size of the B2G e-commerce market as a component of total e-commerce is trivial, as government e-procurement systems remain undeveloped (Iqbal, 2013:7).

**C2C e-commerce**

Consumer-to-consumer e-commerce or C2C is commerce amongst private individuals or consumers (Laudon & Traver, 2016:58). This type of e-commerce can be differentiated in at least three forms:

- Auctions facilitated at a portal, such as eBay, which allows online real-time bidding on items being sold on the Web. A South African example of this form of e-commerce would be bidorbuy.co.za
- Classified ads at portal sites such as Gumtree and OLX (an interactive, online marketplace where buyers and sellers can negotiate and which features “Buyer Leads & Want Ads”).
- Peer-to-peer (P2P) systems, such as the Napster model (a protocol for sharing files between users used by chat forums similar to IRC) and other file exchange and later money exchange models (Baltzan, 2015).

The Figure below provides a summary of the different e-commerce categories.

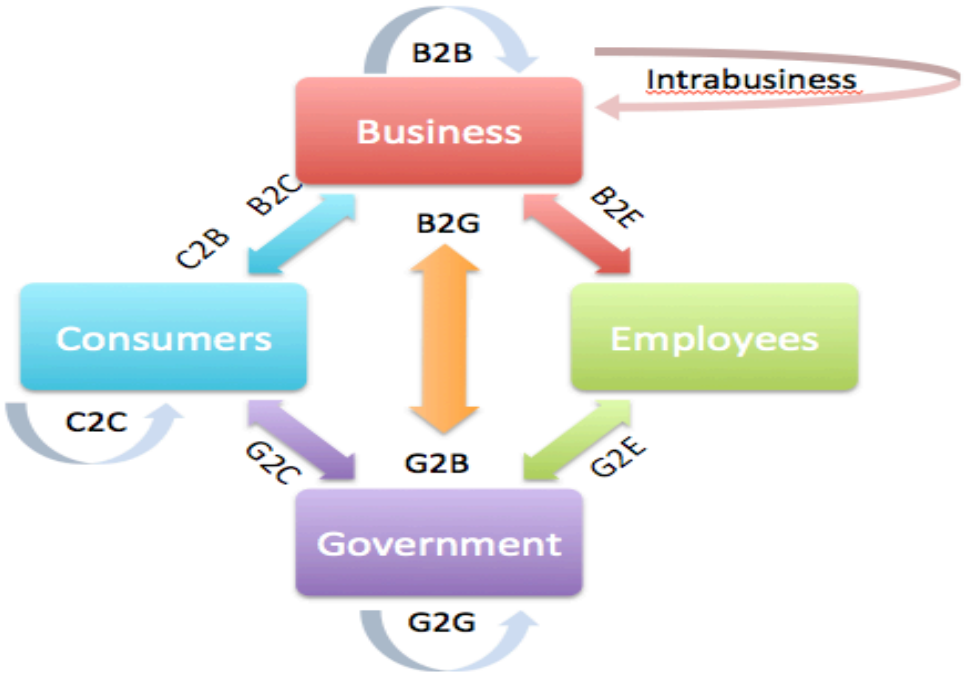


**Figure 2.3: Categories of transactions in e-commerce** (Turban *et al*., 2017:10)

### 2.4.7 Major trends in e-commerce

Figure 2.4 portrays the latest major trends in e-commerce. True mobile e-commerce has become a reality with the influx of mobile platforms that are based on smartphones and tablet computers. Laudon & Traver (2016:47) explains that social networks stimulate social e-commerce, which provides search, advertising, and payment services to vendors and customers. An increased number of people and businesses are using the Internet and mobile devices to conduct business. E-commerce technologies became less expensive, and have subsequently enabled smaller firms to compete against larger organisations by taking advantage of the Internet and mobile platforms.

**Figure 2.4: Major trends in e-commerce**

| BUSINESS |
| --- |
| • Retail e-commerce continuesto grow worldwide, with a global growth rate of almost 25%, and even higher in emerging markets such as China, India, and Brazil.<br>• Mobile retail e-commerce explodes and in the United Kingdom now accounts for over 30% of total U.K retail e-commerce, totaling an estimated £19 billion in 2015.<br>• The mobile app ecosystem continues to grow, with around 2 billion people using mobile apps worldwide.<br>• Social e-commerce, based on social networks and supported by advertising, emerges and grows by 25% from 2013 to 2014, generating over $3.3 billion in revenue for the top 500 social media retailers in the United States.<br>• Local e-commerce, the third dimension of the mobile, social, local e-commerce wave, also is growing, fueled by an explosion of interest in on-demand services such as Uber.<br>• On-demand service firms like Uber and Airbnb attract billions in capital, garner multi-billion dollar valuations, and show explosive growth.<br>• Mobile and social advertising platforms show strong growth and begin to challenge search engine marketing.<br>• Small businesses and entrepreneurs continue to flood into the e-commerce marketplace, often riding on the infrastructures created by industry giants such as Apple, Facebook, Amazon, Google, and eBay.<br>• B2B e-commerce worldwide continues to strengthen and grow to €14.2 trillion. |
| **TECHNOLOGY** |
| • A mobile computing and communications platform based on smartphones, tablet computers, and mobile apps becomes a reality, rivaling the PC platform and creating an alternative platform for online transactions, marketing, advertising, and media viewing. Mobile messaging services like WhatsApp and Snapchat are used by 40% of smartphone users.<br>• Cloud computing completes the transformation of the mobile platform by storing consumer content and software on Internet servers and making it available to any consumer-connected device from the desktop to a smartphone.<br>• Computing and networking component prices continue to fall dramatically.<br>• As firms track the trillions of online interactions that occur each day, a flood of data, typically referred to as Big Data, is being produced.<br>• In order to make sense out of Big Data, firms turn to sophisticated software called business analytics (or Web analytics) that can identify purchase patterns as well as consumer interests and intentions in milliseconds. |
| **SOCIETY** |
| • User-generated content, published online as social network posts, tweets, blogs, and pins, as well as video and photo-sharing, continues to grow and provides a method of self-publishing that engages millions.<br>• Social networks encourage self-revelation, while threatening privacy.<br>• Participation by adults in social networks increases; Facebook becomes ever more popular in all demographic categories.<br>• Conflicts over copyright management and control continue, but there is substantial agreement among online distributors and copyright owners that they need one another.<br>• Taxation of online sales poses challenges for governments.<br>• Surveillance of online communications by both repressive regimes and Western democracies grows.<br>• Concerns over commercial and governmental privacy invasion increase.<br>• Online security continues to decline as major sites are hacked and lose control over customer information.<br>• Spam remains a significant problem.<br>• On-demand service e-commerce produces a flood of temporary, poorly paid jobs without benefits. |

**Source: (Laudon & Traver, 2016:48)**

#### 2.4.7.1 Global online retail deal days

Global online deal days, for example, Black Friday and Cyber Monday are hugely prominent and beneficial e-commerce opportunities and present South African e-tailers an opportunity to reach a wider audience of e-consumers (consumers who are actively looking to make purchases online) (Tucker, 2017). This trend has truly got incredible potential locally, especially if retailers establish cross-channel relationships that are mutually beneficial (Tucker, 2017). For example, an airline could join forces with Golf Estates to improve their offering and reach more potential customers and increase sales.

#### 2.4.7.2 Improved delivery times

South Africa has been struggling with reliable delivery methods due to the unreliable nature of the South African postal service (Tucker, 2017). The advent and continuous growth of courier services in South Africa saw a significant improvement in delivery methods. Improved delivery methods have been identified as one of the key success factors in South Africa, and therefore, these improvements are likely to continue.

#### 2.4.7.3 Assortment

A noteworthy influencer of South African e-commerce development in 2017, the expansion in an assortment of item offerings online, e-tailers and the presence of e-marketplaces is probably going to proceed (Tucker, 2017). Although South African consumers have possessed the capacity to make online purchases for everything from tickets for live shows to their Friday night take-aways, (Tucker, 2017) believes that the assortment of product and provider choices will continue to grow in conjunction with the launch of platforms such as PriceCheck and other e-marketplaces that provides brick and mortar stores with a dependable platform to enter the e-commerce market.

#### 2.4.7.4 Consumer behaviour evolution

As e-commerce offerings increment with the consideration of brick and mortar stores and their products, which might not have customarily been sold online, South African consumers will increasingly become more aware of the security and convenience of online shopping and will turn out to be more disposed to move to e-commerce platforms for ordinary convenience shopping (Tucker, 2017). This is against the current trend of South African e-consumers, who are more inclined to predominantly shop online for travel items (Effecitve Measure, 2017).

#### *2.4.7.5 Mobile commerce*

Tucker (2017) states that the utilisation of mobile devices and smartphones specifically, inside the e-commerce space is a noteworthy thought for organisations regarding guaranteeing mobile-friendly online display settings, as well as, opportunities in creating mobile applications and presenting new payment choices. Prinsloo (2016) supports this view and states that while the larger part of online shopping transactions is currently inclined to happen on desktops, shopping applications, which are simple and convenient to use on mobile devices, are probably going to increment in prevalence in South Africa in 2017. Similarly, with expanding enthusiasm of South African banks to enhance their online payment frameworks, new payment choices may additionally streamline e-commerce sites and the way online shopping is conducted. Tucker (2017) says, “As mobile penetration continues to increase rapidly, as it has in the past decade, Africa’s current contribution to global e-commerce sales is set to rise exponentially.” Note that South Africa, as a standout amongst the most critical e-commerce contributors on the continent, is probably going to lead the pack in next level e-commerce adoption with sales anticipated that would increment by around 40% throughout the following 10 years as consumers keep on shifting their buying behaviour to support the comfort of online platforms progressively. Remaining fully informed regarding the most recent e-commerce trends and advancements in 2017 will profit both consumers and retailers by giving an ideal consumer experience and additionally providing brands with a superior comprehension of their consumer base.

### 2.4.8 Waves of e-commerce

#### *2.4.8.1 The first wave:*

The utilization of systems to trade cash and transmissions started in the late 1950’s with the improvement of electronic fund transfers (EFTs). EFTs, or wire transfers, was the electronic transmission of account information through private communication systems (Iqbal, 2013:9). This could thus be understood as electronic trading since individuals and businesses could both update accounts and trade using EFT’s. In the late 1960’s, electronic data interchange (EDI) was utilised to diminish the measure of time and effort in inserting information, for example, invoices, purchase orders and bills. EDI made it possible to exchange information and execute electronic transactions between businesses in the form of electronic purchase orders and invoices. Organizations that participate in EDI are alluded to as Trading Partners. As a result of the high

implementation costs, this technological benefit was restricted to government institutions and large organisations (Iqbal, 2013:9). E-commerce only really started to take off in 1994, when security protocols and high-speed Internet connections such as DSL were introduced (Iqbal, 2013:9). The introduction of DSL allowed for much faster connection speeds as well as improved online transactions. Industry specialists anticipated rapid development in e-commerce related organisations. In light of these specialist opinions, in the vicinity of 1998 and 2000, a considerable number of organizations in Western Europe and the United States developed their first basic e-commerce websites (Iqbal, 2013:9).

A number of these organisations became penniless, due to inadequate income models to produce enough income to support their businesses. As an ever-increasing number of organisations sought for that one special smart idea, e-commerce organisations became overvalued, and some unwise ideas were also applied. Iqbal (2013:10) indicates that by 2000, e-commerce saw a decline, and some businesses went bankrupt due to insufficient advertising budgets to support their initial promises.

The dot-com fall raised worries, and seeing its endless advantages; examinations were conducted for finding the explanations behind these occurrences. These examinations revealed the following severe mistakes made while embracing the innovation (Iqbal, 2013:10):

- It was discovered that online business was constrained to a huge degree to US organisations and was not worldwide in nature.
- Most of the early e-businesses utilised English, as their dialect of choice. Thus clients who did not communicate in English, or who did not feel sufficiently sure to purchase goods and services in English, did not engage in e-commerce.
- Many of the first e-businesses were launched with outside investors supporting smart ideas. They concentrated solely on how the Internet could be utilised to improve business procedures and diminish transaction costs. Inadequate attention was given concerning creating an understanding of how these organisations could deliver income.
- E-mail has initially been unstructured as far as how it was utilised by organisations. Organizations utilised e-mail solely for correspondence with no formal structure, which resulted in additional human resources and subsequently increased labour costs.
- E-mail has also been related to the regularly expanding measures of spam and

other unwelcome content. The normal dependence on advertising as a source of income was a noteworthy oversight by numerous e-businesses. The absence of alternative income streams or a comprehension of the amount online advertising attributed to the revenue resulted in many e-businesses with insufficient revenue streams.

#### *2.4.8.2 The Second Wave:*

With an end goal to defeat the blemishes of the first wave, and to guarantee accomplishments of new statures, the key attributes of the second wave of e-commerce, it is understood that the second wave will be based on internationalisation and extend support (Iqbal, 2013:11). Appropriately, the following activities came as a historical point to guarantee wide acknowledgment of e-commerce (Iqbal, 2013:11):

- Many organisations have started to give worldwide e-commerce existences understanding the significance of e-commerce as a worldwide commercial centre. Sites were created in local languages, which are tweaked to local markets as far as the substance they give.
- Own assets and capital were predominantly utilised for setting up online organisations.
- Substantial effort and care are taken in contriving income models and recognising suitable income streams. There is an accentuation on how income will be created, rather than who is going to supply the income.
- Businesses will be adaptable regarding how income is created, and trust that responding to current trends is the way to setting up a fruitful online presence.

There has been a considerable growth in the quantity of Internet users around the world, and any reasonable person would agree that most nations on the planet now have access to the Internet even if the quality of Internet access vary substantially from one country to the next (Iqbal, 2013:11). Accessibility of broadband connections has guaranteed access to advanced media; for example, video and music can be sold and traded online. Customised e-mail strategies have enjoyed even more focus and businesses now utilise e-mail for establishing profound associations with customers and guaranteeing that consumers are reached in an opportune way (Iqbal, 2013:11). Organisations today utilise a variety of refined and sophisticated advertising methods that are incorporated into their e-business activities. New strategies for the trading of distributed goods and services attached to advertising have been developed (Iqbal,

2013:11). The main differences between the first and second waves of e-commerce are summarised in the table below.

**Table 2.3: Differences between the First and Second waves of e-commerce** (Iqbal, 2013:12)**:**

| First Wave | Second Wave |
|---|---|
| The dominant influence of U.S. businesses. Extensive use of the English language. | Global enterprises in many countries are participating in electronic commerce. |
| Internet technologies were slow. Most consumers connected to the internet using dial-up modems. | The increase in broadband connections in homes is a key element. Although these connections are more expensive, they are up to 20 times faster and can alter the way people use the web. |
| Electronic mail was used as a tool for relatively unstructured communication. | Customized e-mail strategies are now integral to consumer contact. |
| Over-reliance on advertising as a revenue source for many failed dot-com businesses. | Some categories of online advertising, such as employment services (job wanted ads) are growing rapidly and are replacing traditional advertising outlets. |
| Many new companies started with outside investor money. | Established companies fund electronic commerce initiatives with their capital. |

## 2.4 Virtual Reality

The definition of Virtual Reality originates directly from the two words ‘virtual’ and ‘reality’ where the word virtual means ‘near’ or ‘computer-generated’, and reality is what we experience as human beings (Virtual Reality Society, 2016). The combination of these two words can thus be summarised as “near reality” or “computer-generated reality”. Li (2012:2) describes Virtual Reality as a computer-generated simulation that augments the real world by various sources of media. As human beings, we experience the world by making use of our most basic senses like taste, touch, smell, sight and hearing. Human beings also possess more sophisticated senses like the sense of balance as well as other more sophisticated sensory inputs (Virtual Reality Society, 2016). The combination of both basic and sophisticated senses, as well as perception systems, provides the human brain with a rich flow of information from our respective environments (Virtual Reality Society, 2016). An individual’s perception of reality is thus a combination of sensory information and the brain’s sense making mechanisms of the

information acquired through the various senses (Virtual Reality Society, 2016). One could argue then that if you can present your senses with fabricated information, your perception of reality could also change in response to the fabricated information (Virtual Reality Society, 2016). Virtual reality could be referred to as the art of presenting a version of reality that is not present, but from the human perspective, it would be perceived as being real. The technical definition of virtual reality can be described as the three-dimensional, computer-generated environment that can be explored, experienced, and interacted with by a human being (Virtual Reality Society, 2016). Li (2012:3) states that Virtual Reality environments aspire to provide participants of virtual reality with a perception of "presence", which can be described by two features: immersion and intuitive interactions. In summary, virtual reality entails presenting the human senses with a computer generated a virtual environment that can be explored, interacted, and participated in some way or fashion.

### 2.5.1 Achieving Virtual Reality

The main method of achieving virtual reality in today's day and age is through the application of computer-generated technology. A range of systems like headsets, omni-directional treadmills, and gloves are used to stimulate senses and create the illusion of reality (Virtual Reality Society, 2016). The human brain and senses are developed to deliver a precisely synchronised experience, and thus achieving virtual reality is far more difficult than it sounds (Virtual Reality Society, 2016). The human brain and body are interconnected and highly synchronised, and if any of the senses are not in sync or anything seems out of place, it will alert the senses, and one would experience what is called asimmersiveness and realism and asimmersieveness are the terms used to differentiate between persuasive or pleasant virtual reality experiences and fake or unreal experiences (Virtual Reality Society, 2016). Successful virtual reality technology needs to focus acute attention on human physiology to ensure all sensory systems are in sync. Conflicting balance-sensing systems could cause motion sickness. This occurs when, for example, the inner ear, eyes, and sensory nerves, a sense that the body is moving, but the other parts are stationary. Accurate virtual reality or otherwise known as a sense of presence is thus achieved when the combination of hardware, software, and synchronisation of the sensory systems are all in harmony (Virtual Reality Society, 2016).

### 2.5.2 Successful Virtual Reality

The world of virtual reality consists of many types of systems, but essentially all virtual reality systems have the same goal in mind which is to provide the human being with the ability to view life-sized, three-dimensional impressions (Thakur, 2016). These impressions change as the individual moves around within the environment. It is very important, as stated earlier, that the virtual impressions accurately correspond with the change in the field of vision to avoid a disjoint between sensory systems. The ultimate goal is a seamless link between head and eye movements with the suitable response, which ensures a realistic virtual environment. Successful virtual environments should provide the user with appropriate responses, which means that actions should reflect immediately or in real time without any system response delays (Thakur, 2016).

### 2.5.3 Virtual Reality Application

Virtual Reality dates back about half a century, yet the benefits are rapidly extending to various application areas, such as simulators for aircraft cockpits and vehicles, movement analysis for sports and rehabilitation, scene representation for archaeological sites and museums, skill training for surgery operations and engineering repair, data visualisation for scientific research and industry design, as well as entertainment (Li, 2012, p.3). here are some examples where virtual reality is applied. A handful of companies are integrating it to work, while a growing number use virtual reality to sell. Virtual reality could contribute to new and exciting discoveries, which impact the future. Over the past few years, the retail industry started embracing the consumer's need for multi – and omni-channel experiences, with special attention to mobile optimisation. Virtual reality could be the solution to situations where it is too dangerous, expensive, or impractical to execute. Virtual Reality technology has continued to grow within the retail sector across the globe, providing the potential for immersive shopping experiences (Khan, 2016). The figure below provides some insights on Virtual Reality's impact on purchase decisions (Khan, 2016).

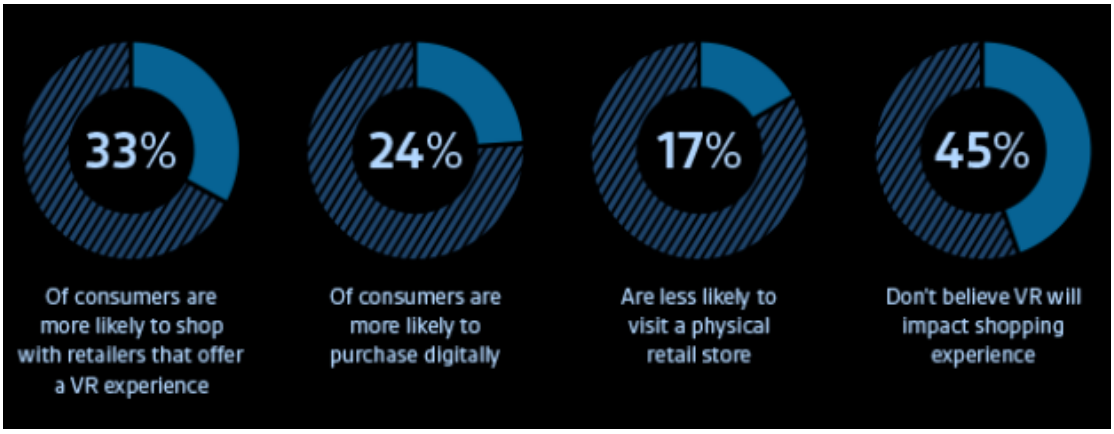


**Figure 2.5: Impact on purchase decisions** (Khan, 2016)

Ford designers and engineers use virtual reality to test an array of elements in new car designs (Burkard, 2016). The Ford Motor Company stated that virtual reality brought about a saving of more than eight million dollars in one year (Burkard, 2016). Audi equipped dealers with virtual reality kits that will enable customers to configure and customise vehicles according to taste (Burkard, 2016). Surgeons at UCLA are using medical virtual reality technology and virtual reality headsets to test-run highly technical and sensitive surgeries before they operate on patients (Burkard, 2016).

### 2.5.4 Online Product Experience

Consumers experience products in a variety of ways, ranging from direct to indirect product experiences (Verhagen *et al.,* 2014:271). The consumer purchase decision, more often than not, relies on indirect product experiences such as reading product descriptions or seeing products in an advertisement. These experiences are viewed and regarded as indirect product experiences (Hamilton & Thompson, 2007:547). Direct products experiences, in contrast, are experiences where the consumer can touch and feel the product and are considered to be more interactive or hands-on experiences (Hamilton & Thompson, 2007:547). Direct and indirect product experiences have been researched and compared in various marketing research endeavours (Hamilton & Thompson, 2007:547). The research found that direct experiences like product trials provided the consumer with more credible information and feedback about how the products work, and engage in active learning as opposed to passive learning experiences obtained from indirect product experiences (Hamilton & Thompson, 2007:547). For example, a consumer might look at product displays at The Pro Shop or review product specifications and descriptions online before purchasing a new set of golf clubs. The long-term satisfaction with the set of golf clubs is more likely to be based

on direct experience from actually using the golf clubs to play a round of golf. In the online shopping context, indirect product experiences are often the only form of product experience available to consumers before making an actual purchase decision. Effectively communicating product qualities in an online environment is therefore extremely important, yet challenging.

To overcome the challenge of effectively communicating product qualities and attributes, online retailers continuously apply more advanced product presentation formats. Static picture and plain text formats were dominant during the initial stages of online retailing. Recent developments have seen methods such as 360-spin rotations, which portrays products in a more "realistic" way. They provide product experiences that seem more direct, by enabling consumers to virtually "feel, touch, and try" products (Verhagen et al., 2014:271).

## 2.6 Consumer Behaviour

Consumer behaviour is primarily focused on consumer learning processes from internal factors such as motivation, rituals, moods, personality, lifestyles, and attitudes (Shareef *et al.,* 2016:1). Consumer behaviour is also concerned with external factors such as marketer endorsements and group behaviour considering family, associative, and aspirational group influences (Kotler & Armstrong, 2014:158). It also examines different demographic factors including social class, religion, household influences, and cultural attributes (Shareef *et al*., 2016:1). Kardes *et al*. (2011:8) summarised consumer behaviour as the in-depth understanding of the entire consumer decision-making processes with regards to the acquisition, usage, and disposal of goods and services, as well as the consumer's emotional, mental, and behavioural responses that lead, control, or follow these events. Consumers interpret various environmental factors using a unique fundamental reasoning system called "The Buyer's Black Box" which is built up over some years and is used to respond and declare buyer behaviour (Kotler & Armstrong, 2014:159).

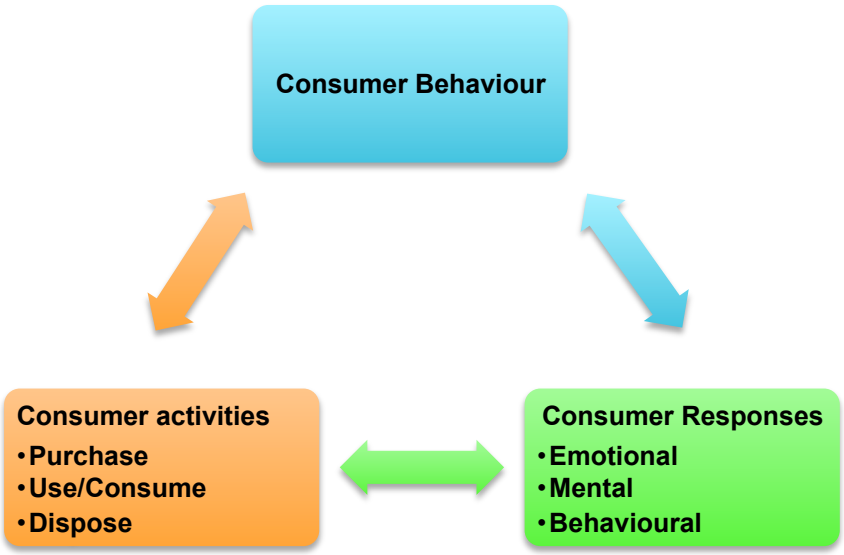


**Figure 2.6: Consumer Behaviour Definition** (Kardes *et al.,* 2011:8)

In the process of obtaining an enhanced understanding and perspective of online shopping behaviour, various traditional consumer behaviour theories regarding the characteristics and decision-making processes will be examined, explored and compared to online shopping environments. The traditional fundamental aspects or concerns of consumer behaviour are (Shareef *et al*., 2016:1):

- Why do consumers develop a preference to buy a product or service?
- What influences consumers to buy a product or service?
- When do they buy a product or service?
- How do they buy a product or service?
- How often do they buy a product or service?
- How much of that product or service do they buy?
- Where do they buy a product or service?

### 2.6.1 Traditional consumer behaviour views

Shareef *et al.* (2016:2) state that a logical perspective of the investigation of consumer behaviour probably incorporates and coordinates both intrinsic and extrinsic behavioural and attitudinal impacts from numerous points of view including psychology, sociology, social anthropology, marketing, and financial matters. The psychological perspective provides feedback regarding the cognitive, affective, and behavioural impacts that reason consumers to choose among the different choices that are accessible for procurement (e.g., brands, products, and distribution channels) (Haugtvedt *et al.,*

1992:240). Consumers are likewise inspired by potential contrasts in considering, feeling, thinking, getting to, and recovering psychological mappings (Shareef *et al.,* 2016:2). Another essential factor is the way consumers contrast in their final decision-making in buying, utilizing, and discarding goods and services (Barwise & Farley, 2005:70). Shareef *et al.* (2016:2) explain that the consumer's social class, culture, family orientation, and procreation are frequently examined to establish the effects these factors have on the decision-making process of buying goods and services from a social perspective. To build a suitable hypothesis of consumer behaviour, one has to examine the marvels of consumer habits, personalities, moods, and attitudinal contrasts from social anthropology (Folkes, 1988:549). Shareef *et al.* (2016:2) suggest that marketing cues that drive consumers towards specific products or away from alternatives can actively or passively influence consumer behaviour. Rook (1985:252) maintains that consumers frequently endeavour to augment the utility of their purchase from a cognitive or emotional point of view.

### 2.6.2 New Consideration in Consumer Behaviour

Jarad (2014:114) articulates that consumer behaviour as a buyer, user, or both, is becoming progressively more complex, and increasingly challenging to comprehend and measure. This is because of the widespread accessibility and application of modern technology by both marketers and consumers. The attribution theory by (Folkes, 1988) rationalises consumer attitudinal views, expressions, and motivations by anticipating the impact of mood, personality, and consumer assumptions in light of the presence of mind and knowledgeable understanding. Then again, the behavioural learning theory (Rothchild & Gaidis, 1981:70) presents a learning process externally augmented by a stimulus expressed by the product itself and by marketers to conceptualise consumer behaviour. The traditional consumer behaviour model (Folkes, 1988:549; Garnder, 1985:281; Kotler & Armstrong, 2014:158; Rothchild & Gaidis, 1981:71) entails the extraction of the epistemological and ontological paradigms of three major areas:

- Investigating intrinsic consumer behaviour through conclusions reached by evidence and reasoning, which incorporates both cognitive schemas as well as, behavioural characteristics
- The stimulus that occurs from the design and marketing of a product
- The impact of the external environment like independent, spontaneous settings and situational cognition.

Consumer behaviour is subject to the incorporation of data from a stimulus (external learning), memory and the capacity to interoperate data (cognitive learning) (Mahoney, 1977:5), and the emotional status (affective) including occurrences of habit (Rook, 1985:251). Modern day consumer behaviour researchers have recognised that current patterns in consumer behaviour are roused and significantly reshaped by the dissemination, selection, utilisation of, and attitudinal beliefs towards information and communication technology (ICT) (Jarad, 2014:115). Shareef *et al.* (2016:3) highlight that it is therefore important to note that in the current market scenario, consumer behaviour can't be completely assessed and coordinated without considering the fourth area related to behavioural considerations:

- Consumer technological beliefs, attitudes, exposure, attention, perception, and motivation.

### 2.6.3 Technological Influences on Consumer Behaviour

The abovementioned four influences are all interweaved and should be considered concurrently to develop a modern-day consumer behaviour model (Shareef *et al.,* 2016:3). Furthermore, it is imperative that the fourth influence, which attracts attention to the modern-day marketers and researchers, is considered when researching consumer behaviour. The application of ICT in sales and marketing channels is transforming the traditional consumer behaviour models (Sorce *et al.,* 2005:123). ICT and in particular mobile technology has a strong influence on the consumer decision-making process regarding gathering information, product comparisons, product selection, purchase, service quality, and consumption (Shareef *et al.,* 2016:3). It is also important to note that post-purchase behaviour could also be influenced by ICT. Saravanakumar and Sugantha Lakshmi (2012:4445) delineates that the world of technology (the computer, Internet, mobile technology, and handheld mobile devices such as smartphones and tablets) and social media like Facebook, Instagram, YouTube, and Twitter should be reckoned as effective marketing tools. Developing marketing strategies that concentrate on the extensive advantages of these technologies is something that gets marketing managers excited (Jarad, 2014:116).

### 2.6.4 Four Influences on Consumer Behaviour

By constantly reiterating and highlighting the vast advantages of ICT, especially those of mobile technology, one can redirect the centre of interest in consumer behaviour to

(Shareef *et al*., 2016:4):

- Consumer internal beliefs and attitudes are arising from psychological, sociological, and socio-anthropological perspectives.
- External influences on consumers communicated by marketers and explained by the perspectives of marketing and economics.
- External environmental settings of the marketplace and related considerations, like ethical issues, sustainable environmental issues, and globalisation issues.
- Consumer changes in perception, exposure, attention, beliefs, attitude, and behaviour due to the integrative effect and belief of ICT, particularly mobile technology.

Consequently, by clarifying the studies mentioned above, consumer behaviour can be delineated as the study of the four areas reshaping consumer goods or service selection, purchase, and consumption, as depicted in Figure. 2.7.

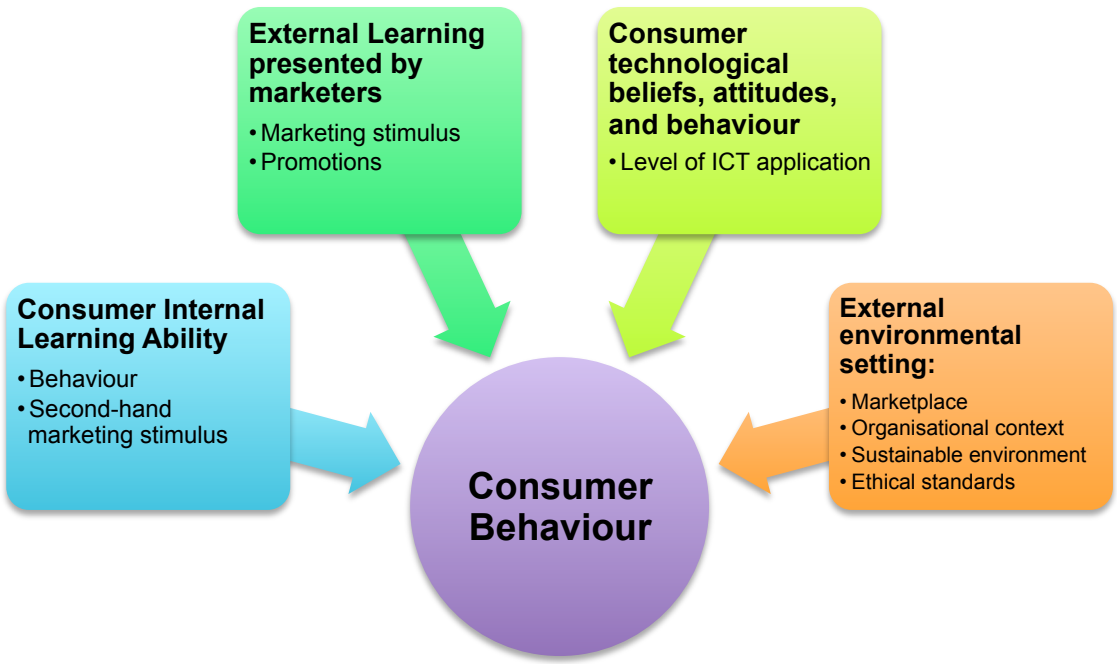


**Figure 2.7: Four influences on consumer behaviour** (Shareef *et al.,* 2016:5)

### 2.6.5 Online Consumer Behaviour

There are several marketing researchers involved in examining traditional consumer behaviour, technology adoption, and online consumer behaviour specifically (Dwivedi *et al.,* 2007:285; Jin *et al.,* 2012:233; Reibstein, 2002:465; Shareef *et al.,* 2016:4). These

researchers also examine the criteria of the selection process for a distribution channel that consist of two-way interactivity for seamless information flow with regards to promotional marketing (Shareef *et al.,* 2016:5). Their research reveals that online consumer buying behaviour is considerably dissimilar from bricks and mortar purchase behaviour. The research also recognised that consumer attitudes and behaviour are considerably different from bricks and mortar behaviour (Shareef *et al.,* 2016:5). Online consumer behaviour is an extended viewpoint of traditional consumer behaviour, where ICT plays a pivotal role in developing consumer behaviour and specifically focuses on consumer interactions, product selection, and purchasing (Shareef *et al.,* 2016:5).

### 2.6.6 Specific behaviour for online

The incorporation of the fourth measurement in the assessment and development of consumer behaviour has set off another prevalence of consumer examination by proposing the expression "online consumer behaviour" (Darley *et al.,* 2010:97; Burke, 2002:415). Breaking down both the driving and restraining factors comprising online consumer behaviour and separating them from conventional buying behaviour, (Shareef *et al.,* 2013:663) delineates that understanding online buying behaviour of consumers is extremely intricate since it is conducted in the virtual medium. There are a few driving and restraining factors, which overwhelmingly impact buyers' choice in buying using an online platform. In assessing online consumer behaviour, certain suggested legitimate ties of the virtual medium should be emphasized (Banyte *et al.,* 2011:319; Dwivedi *et al.,* 2012:12; Jarad, 2014:114; Jin *et al.,* 2012:234; Konus *et al.,* 2008:399; Leek & Christodoulides, 2009:45; Mari, 2013:136; Reibstein, 2002:466; Shareef *et al.,* 2016:6):

- It is believed that consumers are not buying the product online, but their intention is actually to buy an exclusive offer from a vendor website.
- Consumers can't utilise their five senses vision, touch, smell, taste, and hearing to assess any online item amid buying and before receipt.
- Consumer skill, knowledge and experience of ICT, has a direct effect on online information collection, comparison, and buying.
- Online purchases are also considerably affected by the consumer's technological beliefs and attitudes towards technology, trustworthiness, and adoption behaviour.

### 2.6.7 New Definition and Prioritised Properties

In view of previously mentioned literature review, online consumer behaviour can be

delineated as The study of consumers and the entire buying process including initiating the process, collection of information, making decisions through comparison, purchasing, receiving the product, consuming and evaluating the product functional value, developing post-usage attitude, and conducting this entire process entirely or partially online (Shareef et al., 2016, p.6). The following areas could be significantly different from traditional consumer behaviour (Konus *et al.,* 2008:404; Leek & Christodoulides, 2009:47; Mari, 2013:144; Shareef *et al.,* 2016:6):

- Collecting information: In an online environment, consumers can simultaneously collect information from multiple vendors for the same or at least similar products and brands (Shareef *et al.,* 2013:675).
- Decision-making using comparison: The use of ICT is so significant and commanding in this stage that new technology can streamline and reshape consumer behaviour (Jarad, 2014) (Saravanakumar & Sugantha Lakshmi, 2012:4448; Shareef *et al.,* 2016:7).
- Product assessment instantly after receipt and utilisation: During this stage, the functional value of the product plays a pivotal role in affecting consumer behaviour (Shareef *et al.,* 2016:7). In an online context, the emotional value, the expected quality, and the final performance experience only happens post-purchase compared to traditional purchasing methods, where most of the above happens during the purchase (Sweeney & Soutar, 2001:205). Amid the product selection and purchasing stage of online shopping, consumers can only assess the genuine practical value upon receipt of the product. Consequently, researchers interested in modelling an online consumer behaviour model need to understand the complexities of post-utilisation attitude.

### 2.6.8 Drivers of success for online consumer behaviour

The frequent application of the Internet and other ICT-related tools, functions and characteristics significantly revolutionised the traditional consumer behaviour model for purchasing, using, and disposing of goods and services (Shareef *et al*., 2016, p.7). The optimisation of products and services through the use of technology and the incorporation of ICT in the following areas are all extremely dominant factors in the twenty-first century:

- Product design
- Stimulus presentation
- Ads

- Attitudinal changes in beliefs of the ideal
- Change in belief in attributes
- Pricing and promotion

These factors have become so important that consumer behaviour in the twenty-first century can't be assessed and conceptualised without examining online consumer behaviour (Shareef *et al.,* 2016:7). Online media as an effective and versatile distribution and communications channel for consumers is due to the various applications of ICT and the incorporation of the Internet with traditional channels of distribution, like a bricks and mortar store (Zhou *et al.*, 2007:43). The fundamental concerns of online consumer behaviour for several marketers (Darley *et al.,* 2010:95; Folkes, 1988:550; Jarad, 2014:115; Konus *et al.,* 2008:401; Leek & Christodoulides, 2009:45; Mari, 2013) are as follows:

- The researchers (Saravanakumar & Lakshmi, 2012:4444) are especially concerned with how consumers collect product information with a specific focus on the following:
    - Usage and applications of ICT emphasising mobile technology in product design, product distribution, and promotional offers
    - Consumer reliance on ICT
- How technology beliefs are developed. This comprehensive factor associated with online consumer behaviour is profoundly associated with the way in which consumers embrace technology to align with their attitudinal changes in product information collection. Components to be investigated according to (Durkin, 2013:52; Shareef *et al.,* 2016:8) are:
    - Level, degree, and frequency with regards to the application of ICT in product, service or information design, distribution, and offering
    - Consumer beliefs with regards to ICT
    - Consumer attitudinal change with regards to ICT over a period
    - Consumer competence in adoption and usage
- What are the sources of information for consumers? Researchers (Danaher & Rossiter, 2011:7; Darley *et al.,* 2010:95; Durkin, 2013:53) are focused on the new marketing framework, and they are particularly interested in the following aspects:
    - Traditional sources like television, billboards, word of mouth, sales

representatives, leaflets, banners, etc.
    - Internet
    - Email and chat websites
    - Mobile- or smartphone through short messaging service (SMS) and multimedia messaging service (MMS)
    - Social media like Facebook, Instagram, YouTube, and Twitter
- Marketing researchers (Leek & Christodoulides, 2009:46) are interested in the relative impacts of the latest technological sources. Researchers are particularly interested in this field of study to ascertain the benefits and scope of modern ICT with a keen interest in mobile technology. Some marketing researchers (Leek & Christodoulides, 2009, p.46) believe that successful modern marketing strategies virtually depend on the usage of mobile technology in the product offering, service, information, and promotion. It is however also important that the consumer's technological beliefs, attitudes, perceptions, skills, and behaviour be taken into account (Mari, 2013:150). (Leek & Christodoulides, 2009:47; Shareef *et al.,* 2016:8; Burke, 2002:420) suggest that the following aspects should be explored:
    - Scope of technology usage and relative costing
    - Balance between SOD and SOS
    - Consumer preferences for different online sources like Internet, social media, mobile- or smartphone, SMS or MMS
    - Consumer compatibility with different sources of ICT
    - Leveraging of the effect of different ICT media
- How consumers' beliefs are formed with a specific focus on product, service, and information regarding different channel structures which include communication channels, distribution channels, direct marketing, and promotional offers after extensive integration of ICT (Leek & Christodoulides, 2009:48). Researchers specifically investigate the following (Barwise & Farley, 2005; Bernstein *et al.,* 2008):
    - Cognitive, affective, and conative beliefs for ICT in association with product, service, and information and the type of communication and interactivity
    - Associated benefits, interferences, scopes, and access cost of ICT with online channel
- How consumers make their decisions. This is part of the conventional knowledge

about consumers (Shareef *et al.,* 2013:8), but the scope and capacity are modified as a result of the application of technology from both retailers and consumers. These include:

- The impact of virtual medium
- The combined impact of virtual communal relationship marketing
- The impact of trustworthiness, reliability, security, customer care, customer value, and privacy
- The impact of ICT on consumer decision-making through limited rationality

- How consumers compare products. Product comparison also forms part of traditional consumer behaviour studies, but the application of technology and the integration of ICT in distribution and promotional channel structures makes this process considerably different *(*Engel *et al.,* 1973). Researchers like (Shareef *et al.,* 2016:9) are specifically interested in:
  - Consumer technological beliefs and interests, as well as offers from vendors that consist of technology
  - Ability, availability, and consumer access to different brands that are compatible with consumer preferences
  - Synergistic impact of product or brand and relevant technology
- What are the post-purchase beliefs of the consumer? (Kotler & Armstrong, 2014:178) Explains that the post-purchase beliefs of consumers are a vital area for researchers to address, study, and conceptualise the mind-set of consumers with a specific focus on online shopping. Post-purchase behaviour is one of the key elements for researchers to study (Engel *et al.,* 1973). Post-purchase behaviour becomes especially important with online consumer behaviour since the consumers can only effectively and practically inspect and evaluate the product or service post the purchase and upon receipt.
  - Functional value can be defined as consumer beliefs before the purchase based on the promise of the retailer versus the experience before the usage, but post receipt of the product (Shareef *et al.,* 2016:9). This can assist in framing a demeanour that prompts repeat purchases.
  - Functional value can also be defined as consumer expectations during the purchase process without the use of any senses versus the consumer's experience after usage of the product (Shareef *et al.,* 2016:9). This could assist consumers to gain satisfaction and in turn, creates loyalty.
- What drives consumer loyalty. It is very important to investigate online

consumers' learning processes, attitudes, finally their behaviour in this regard (Darley *et al.,* 2010:95; David, 2014; Jarad, 2014:115; Mari, 2013:136; Saravanakumar & Lakshmi, 2012:4445). Important contextual factors to consider in this regard are:

- Consumer changing demand and behaviour due to the rapid change in technology
- Consumer learning curves for online purchase and interaction
- Usage of financial instruments, its security, and final invoice status
- Perception of value regarding price

By conceptualising the studies mentioned above, the key driving concerns for online consumer behaviour can be summarised in Figure 2.8.


**Figure 2.8: Driving concerns of online consumer behaviour** (Shareef *et al.,* 2016)

## 2.7 The consumer decision process

Consumers make a vast number of decisions on a daily basis, from the ordinary to the significant, and a decision is defined as choosing, committing and/or selecting a single option from various available alternatives (Kardes *et al*., 2011:181). The consumer

purchasing decision process is analysed and researched in great depth. The primary objective for most research endeavours is to obtain information regarding what consumers buy (products and services), where they buy (place), how they buy (method), how much they buy (quantity), when they buy (time), and why they buy (Kotler & Armstrong, 2014:176). Kotler and Armstrong (2014:176) state that the buyer decision process is a much more in-depth and complex process than just purchasing an item. The figure below illustrates the traditional consumer decision process and defines it as a 5-step process.


**Figure 2.9: Consumer Decision Process:** (Kotler & Armstrong, 2014:176)

The study of consumer behaviour focuses its attention on the processes involved in how individuals make decisions to apply their available resources like time, money, and effort when consuming a product or service (Kotler & Armstrong, 2014:176).

### 2.7.1 Problem recognition

According to Prasad and Jha (2014:335) a consumer purchase is a response to an existing problem, and consumer decision-making relates to making decisions regarding various product and service offerings. The decision-making process could be defined as the course of action in which a consumer gathers and processes information, evaluates the information and then selects the best solution in response to the existing problem (Prasad & Jha, 2014:335). The consumer decision process by and large starts when the consumer recognises consumption issues that need to be solved like ("I need new Golf Clubs" or "I might need a few new golf clothing items") (Hoyer *et al.,* 2013:185). Problem recognition is the apparent difference between the desired situation and the current situation (Kardes *et al.*, 2011:187). This is an important stage in the consumer decision process since it propels the consumer to act upon (Hoyer et al., 2013, p.185). (Kardes *et al.,* 2011:187) refers to this discrepancy as the want-got gap as depicted in Figure 2.10 below.


**Figure 2.10: The Want-Got Gap** (Kardes *et al.,* 2011:189)

The desired situation can be seen as the perfect situation and the way consumers would like a situation to be in the ideal world (like having the latest smartphone). The current situation is the real or actual situation as consumers experience the situation at

this point. Problem recognition takes place when consumers experience inconsistencies or discrepancies between the current situation and the desired situation, and the consumer may be interested in solving it by participating in decision making (Hoyer *et al.,* 2013:185). Marketing can assist in putting consumers in a problem recognition situation and encourage them to start the decision process, and marketers use two major techniques to entice problem recognition (Hoyer *et al.,* 2013:188):

- Create a new desired situation by showing consumers how a particular product is a solution to their existing problem.
- Encourage dissatisfaction with current situation

### 2.7.2 Information Search

The second step in the decision-making process, once the problem recognition has been satisfied, the consumer will engage in the decision process to solve the identified problem, and archetypally the first step will be an internal search (Hoyer *et al.,* 2013:188). Hoyer *et al.* (2013:188) define internal search as the process of recollecting stored information from memory. Kardes *et al.* (2011:195) support this by delineating that consumers may access information from their long-term memories to recollect past experiences. Kotler & Armstrong (2014:176) refers to this source of information as an experiential source, which entails handling, examining or using the product. This purposeful recollection of information is common with low involvement decisions, which forms a significant part of consumers' day-to-day activities (Kardes *et al.,* 2011:195). When internal search fails to provide sufficient problem-solving information, consumers engage in a search for information from external sources (Hoyer *et al.,* 2013:189).

External search can be defined as the process of collecting information from outside sources (Hoyer *et al.,* 2013:194). Kotler and Armstrong (2014:176) indicates that consumers can obtain information from various external sources, which includes personal sources (family, friends, neighbours, acquaintances), commercial sources (advertising, salespeople, websites, packaging, point of sale displays), and public sources (social media, mass media, online searches and peer reviews). Hoyer *et al.* (2013:195) explain that consumers engage in two major types of external search. A pre-purchase search occurs in response to problem recognition where the goal is to make improved purchase decisions. On-going search originates from enduring involvement and occurs on a continual basis (independent of problem recognition) (Hoyer *et al.,* 2013:195). In the latter, consumers search for information because they find searching

enjoyable (they like to browse). Golf professionals are drawn to new golf clubs, training aids, and apparel, and they enjoy the opportunity to play new golf courses.

**Table 2.4: Pre-purchase Search vs. On-going Search**

| | Pre-purchase Search | Ongoing Search |
|---|---|---|
| **Definition** | A search for information that assists a specific acquisition decision (Hoyer et al., 2013). | A search that takes place on a regular basis, regardless whether the consumer is making a choice (Hoyer et al., 2013). |
| **Determinants** | • Involved in the purchase<br>• Market environment<br>• Situational factors | • Involved in the purchase<br>• Market environment<br>• Situational factors |
| **Motives** | • To make improved purchase decisions | • Build a bank of information for future use<br>• Experience fun and pleasure |
| **Outcomes** | • Increased product and market knowledge<br>• Improved purchase decisions<br>• Increased satisfaction with the purchase outcome | • Increased product and market knowledge leading to:<br>- future purchase efficiencies<br>- personal influence<br>• Increased impulse purchases<br>• Increased satisfaction from search, and other outcomes<br>• future purchase efficiencies<br>• personal influence |

Source: (Hoyer *et al.*, 2013:198)

According to Hoyer *et al*. (2013:198), consumers will conduct a more extensive search when they have a higher motivation and the opportunity to process that information. Situational factors affect the consumer's opportunity to process the information. Hoyer *et al*., 2013:199) explains that brand names and product price are among the most accessed attributes in an external search, and consumers also tend to exhibit a confirmation bias in their external search. More salient and diagnostic information tends to be accessed earlier. Finally, consumers tend to process either by brand or by attribute. Attribute search is easier and preferred, but often the information is not organised to facilitate such processing (Hoyer *et al.,* 2013:201).

### 2.7.3 Evaluation of alternatives

Alternative evaluation is the stage of the consumer decision process at which the consumer uses the information to evaluate alternative brands in the set of choices (Kotler & Armstrong, 2014:177). Kotler and Armstrong (2014:177) explain that the alternative evaluation process is complex and that not all consumers use a single and simple evaluation process in all buying situations. Kotler and Armstrong (2014:177) further imply that the evaluation process is specific to the buying situation and that consumers could make use of careful calculation and logical thinking in some instances, but purchase on intuition on another occasion. Kardes *et al.* (2011:199) explain that there are three pieces of information required to conduct a pre-purchase and on-going search: the number of available brands, the determinant attributes for the product category, and how an individual reacts to a brand post the purchase. In practice, however, consumers hardly ever know even one of these three pieces of information. Provided sufficient search effort, consumers could potentially acquire all the required information to make a rational purchase decision. The term rational means that, with comprehensive information, consumers would make decisions that maximise their satisfaction, but the cost of acquiring information often exceeds the benefits of making the best decision (Kardes *et al.,* 2011:200). For example, no golf enthusiast is willing to spend two years of research to find the single best golf club. Kardes *et al.* (2011:200) explain that they rather settle for the “good-though-perhaps-not-best” golf club.

This consumer decision process provided incomplete information is referred to as an uncertainty-reduction process and it recognises that consumers can only make rational decisions within the limits of time and cognitive capability (Kardes *et al.,* 2011:200). Kardes *et al.* (2011:200) delineate that this approach to decision making involves four stages that explicitly address consumers’ bounded rationality. First, consumers develop perceptions about the product-market, and then they minimise the significant number of brands into a single subset of brands for consideration. The third step entails that consumers choose one brand from the consideration set, and then finally, based on their consumption experiences, consumers adjust their perceptions of product-markets in an attempt to make enhanced future decisions (Kardes *et al.,* 2011:200). This model emphasises that consumers continuously sort out and manage information about their chosen brands in an attempt to reduce uncertainty. The evaluation of alternatives could perhaps be simplified in an online environment as a result of factors such as virtual reality and the interactive display of product information that could vastly assist

consumers to make decisions without physically evaluating or assessing the product. This in turn could reduce the amount of effort exerted in the process of alternative evaluation, which leads to making faster decisions.

### 2.7.4 Purchase Decision

The purchase decision can be defined as the consumer's decision about which brand to purchase and Kotler and Armstrong (2014:177) suggest that two factors could come with the purchase intention and purchase decision:

- *Attitudes of others* – If a trusted person with a close relationship to the consumer suggested a particular brand in contrast with the consumer's original choice, the chances of the consumer purchasing that original choice is reduced.
- *Unexpected situational factors* – Expected income, expected price and expected product benefits could be factors the consumer will base his decision on. Events such as an unexpected expense, or a competitor brand running a sudden special could affect the buying intent.

### 2.7.5 Post-purchase behaviour

Kotler and Armstrong (2014:178) describes the post-purchase behaviour as the stage of the consumer decision process in which consumers take further action post the purchase, based on their satisfaction or dissatisfaction. Consumers evaluate their purchases by assessing their satisfaction, and a popular strategy in this regard is to compare the chosen brand with one of the rejected alternatives, and it is known as dissonance-reduction (Kardes *et al.,* 2011:208). Another way consumers determine satisfaction is by comparing a brand's performance against expectations of that performance, and if the performance equals the expectations, then consumers are satisfied. If it exceeds expectations, consumers are delighted, and if the brand fails to live up to expectations, they become dissatisfied (Kardes *et al.,* 2011:209).

## 2.8 Summary

The global increase in Internet usage over the last few decades has not only brought about improved communication channels but has also established a growing trend of e-tailing. Increasingly more consumers are opting for the perceived more affordable and convenient way of shopping. It is thus important for all businesses that want to remain competitive in the modern commerce world of the technological era to keep pace with changing trends. The literature review points out the major differences between

traditional commerce and e-commerce. E-commerce concepts, trends, and waves are explored to obtain an enhanced understanding of this modern commerce platform. Virtual reality and in particular the application thereof in e-tailing is currently a very popular area of investigation, and thus an exploration and understanding of this popular field were necessary. Consumer behaviour within an online context is arguably one of the most complex research topics in the modern commerce world. Chapter 2 explored the difference between traditional consumer behaviour and online consumer behaviour and identified various key driving concerns of online consumer behaviour. The key driving concerns of online consumer behaviour were identified through prior literature and studies in an attempt to gain more insight on the behavioural aspects of online consumers regarding the identified driving concerns. Finally, the consumer decision process is discussed to obtain an improved understanding of the differences between traditional decision-making models and modern online decision-making models. The literature review provided insights that there are significant differences between the traditional decision-making models and online consumer decision-making models. The most apparent differences appear within the areas of information search and product comparisons, where modern commerce platforms are more user-friendly and interactive due to enhanced features such as virtual reality and augmented reality.

# Chapter 3 – Research Methodology and Results

## 3.1 Introduction

A literature review and questionnaire support the theory of this study, focusing on current trends, enablers and tools regarding the e-tailing opportunities of the South African sports business industry. An extensive review of past research was done in the study to establish the context and contribution of the study. The text data includes relevant books, journals, newspaper articles, Internet articles and publications. The start of the chapter explains and introduces the research method and tools employed in obtaining the data required to deliberate the influence of the various identified factors. The rest of the chapter elaborates on the statistical analysis implemented based on the sample data. The validity of the data is addressed, and the reliability coefficients are calculated. Finally, the chapter concludes by reporting and discussing the results gained from the data collected.

## 3.2 Research Methodology

The data was collected using a structured questionnaire that was created and hosted using the services offered by Google Forms. All the questions about each factor derived from the literature study and followed a 4-point Likert scale (Strongly agree to disagree strongly) which can be viewed in Annexure A.

## 3.3 Sampling

The sample consisted of 163 respondents of whom 154 fully completed the questionnaire. All of the respondents had access to the Internet, and a non-probability sampling strategy in the form of purposive sampling within the population was used. The respondents were contacted on social media (Facebook) and were asked to complete the online questionnaire through a link shared on The Golf Club page (Facebook).

## 3.4 Results

The results are presented in table format. Table 3.1 shows the demographic profile of the respondents.

**Table 3.1: Demographic profile**

| Profile variable | | Percentage |
|---|---|---|
| **Age** | Baby boomer (1946-1964) | 9.1% |
| | Gen X (1965-1979) | 35.2% |
| | Millennial (1980-2000) | 55.8% |
| | i-generation | 0% |
| **Gender** | Male | 90.1% |
| | Female | 9.9% |
| **Marital status** | Single | 25.0% |
| | Married | 70.7% |
| | Divorced | 4.3% |
| **Community type** | Urban (In the city) | 52.4% |
| | Suburban (Less than 50km from the city) | 37.8% |
| | Sub-rural (Between 50 and 100km away from the city) | 3% |
| | Rural (more than 100km from city | 6.7% |
| **Education** | Grade 12 | 41.5% |
| | Degree | 37.2% |
| | Post-degree | 20.7% |
| | Doctorate | 0.6% |
| **Net Income** | R0-9999 | 15.4% |
| | R10,000-R19,999 | 17.9% |
| | R20,000-R29,999 | 25.9% |
| | R30,000-R39,999 | 16.0% |
| | R40,000-R49,999 | 7.8% |
| | R50,000+ | 17.9% |

The Internet access profile is shown in Table 3.2.

**Table 3.2: Internet access profile – Preferred device**

| Profile variable | | Percentage |
|---|---|---|
| **Device used** | Smartphone | 66.9% |
| | Tablet | 3.7% |
| | Laptop | 20.2% |
| | PC | 9.2% |
| **Hours per week internet access** | Less than 3 hours | 9.8% |
| | 3-10 hours | 43.3% |
| | 11-20 hours | 25.6% |
| | 21+ hours | 21.3% |
| **Main reason for internet usage** | Social media | 49.7% |
| | Internet banking | 9.2% |
| | Research | 18.4% |
| | Sport info | 11.7% |
| | Other | 11.0% |

The online shopping profile of the respondents is shown in Table 3.3 below.

**Table 3.3: Online shopping profile**

| Profile variable | | Percentage |
|---|---|---|
| **Respond to advertisements** | Yes | 54.0% |
| | No | 46.0% |

**Table 3.4: Online shopping details**

| Online Shopping Profile | | Percentage |
|---|---|---|
| **Preferred device** | Smartphone | 47.9% |
| | Tablet | 6.1% |
| | Laptop | 27.0% |
| | PC | 14.7% |
| | None (I don't shop online) | 4.3% |
| **Frequency** | Every day | 3.7% |
| | Once a week | 11.0% |
| | Twice a week | 3.7% |
| | More than twice a week | 4.3% |
| | Twice a month | 16.0% |
| | Once a month | 23.0% |
| | Every three months | 17.2% |
| | Every six months | 7.4% |
| **Experience** | Very Bad | 2.5% |
| | Bad | 5.6% |
| | Average | 0.6% |
| | Good | 69.8% |
| | Very Good | 21.6% |
| **Basket size** | R0.00 – R99.00 | 3.7% |
| | R100.00 – R199.00 | 3.7% |
| | R200.00 – R499.00 | 21% |
| | R500.00 – R999.00 | 22.8% |
| | R1000.00 – R1999.00 | 27.2% |
| | R2000.00 – R2999.00 | 9.9% |
| | R3000.00 – R3999.00 | 5.6% |
| | R4000.00 – R4999.00 | 22.8% |
| **Preference for local or abroad** | Locally | 88.8% |
| | Abroad | 11.2% |

**Table 3.4 Online shopping details (Continued)**

| Online Shopping Profile | | Percentage |
|---|---|---|
| **Preferred payment method** | Credit card | 58% |
| | EFT | 36.4% |
| | Discovery miles | 0% |
| | e-bucks | 1.2% |
| | Other loyalty points | 1.2% |
| | I don't trust online payments | 3.1% |
| | Bitcoin | 0% |
| **Preferred items** | Appliances | 11 (6.8%) |
| | Books | 31 (19.4%) |
| | Clothing | 44 (27.5%) |
| | Gaming | 20 (12.5%) |
| | Groceries | 8 (5%) |
| | Jewellery | 7 (4.4%) |
| | Music | 21 (13.1%) |
| | Series and movies | 10 (6.3%) |
| | Shoes | 23 (14.4%) |
| | Sports equipment | 102 (63.7%) |
| | Tech | 33 (20.6%) |
| **Branded or generic preference** | Branded products | 76.4% |
| | Generic products | 10.6% |
| | Cheapest products | 13.0% |
| **Online sport equipment purchases** | Yes | 77.5% |
| | No | 22.5% |
| **Instinctive sport equipment purchases** | Yes | 59.0% |
| | No | 41.0% |
| **Cues for online sport equipment purchases** | Through searching the internet | 96 (60.4%) |
| | e-mail advertisements | 54 (34.0%) |
| | Facebook | 93 (58.3%) |
| | Twitter | 3 (1.9%) |
| | Pinterest | 5 (3.1%) |
| | Advertisements | 17 (10.7%) |
| | Billboards | 4 (2.5%) |
| | News papers | 11 (6.9%) |
| | Radio advertisements | 15 (9.4%) |

**Table 3.5: Sport participation profile**

| Sport Participation Profile | | Percentage |
|---|---|---|
| **Sport participation** | Team sport | 6.2% |
| | Individual sport | 51.6% |
| | Both | 42.2% |
| **Reason for participation** | Professional | 3.1% |
| | Semi-Professional | 4.4% |
| | Competition | 21.9% |
| | Recreation | 41.9% |
| | Social | 28.7% |
| **Number of sports** | One | 34.4% |
| | Two | 45.6% |
| | Three | 11.9% |
| | More than three | 8.1% |
| **Member of sports club** | Yes | 82.1% |
| | No | 17.9% |
| **Time spent on sport participation** | One hour | 10.0% |
| | Two hours | 2.5% |
| | Three hours | 13.1% |
| | Five hours | 25.6% |
| | More than five hours | 48.8% |
| **Hours per week watching sport** | One hour | 18.1% |
| | Two hours | 8.2% |
| | Three hours | 18.1% |
| | Five hours | 15.0% |
| | More than five hours | 40.6% |

**Table 3.6: Brick and mortar vs. online shopping profile**

| Brick and mortar vs. online shopping profile | | Percentage |
|---|---|---|
| **Various online stores before actual purchase** | Yes | 81.5% |
| | No | 18.5% |
| **Visit brick and mortar store first before final purchase** | Yes | 56.8% |
| | No | 43.2% |
| **How many brick and mortar stores before making purchase** | One | 30.4% |
| | Two | 55.7% |
| | Three | 11.4% |
| | More than three | 2.5% |

### 3.4.1. Demographic profile summary

Figures 3.1 to 3.7 summarise the demographic profile of the sample. It indicates that 55.8% of the respondents were millennial (ages 17 – 37). A vast majority of the respondents were male which is not surprising seeing that Golf is known to be a male dominant sport across the globe. A large number of respondents are married (70.7%) and of white decent (93.3%). A great majority of the respondents (90.2%) reside in an urban or suburban area, which indicates that most respondents are not more than 50km away from the nearest shopping mall or CBD. More than half of the respondents are well educated, with 57.9% of the sample that completed either a degree or post-graduate degree. The income bracket is well represented by the respondents with a good representation across all brackets. One can, however, derive that almost two thirds of the sample earn more than R20 000 per month.

### 3.4.2 Internet usage and online shopping experience

Figures 3.8 to 3.22 explain the Internet usage and online shopping experience of the respondents. More than two thirds of the respondents prefer to use their smart phones to access the Internet. An overwhelming majority (90.2%) spends more than three hours per week on the Internet, with almost half of the respondents (46.9%) spending more than eleven hours per week on the Internet. Social media is the main reason the respondents access the Internet with almost half (49.7%) of the respondents indicating that social media is what draws them to access the Internet. There is no real conclusive feedback from respondents whether they react to ads to buy online or not. Only 54% of the respondents react to ads, but 46% of respondents don't react to ads to buy online. The smart phone is not only the preferred device for accessing the Internet, but it's also the preferred device to use for online shopping, with almost half of the respondents

(47.9%) that prefer to make use of their smart phone to shop online. The frequency of online shopping varies greatly, but one can summarise that more than half (56.5%) of the sample conducts online shopping at least once during a three-month timeframe. The sample's attitude towards online shopping is positive with 69.8% of the respondents indicating that they've had a good experience with online shopping and 21.6% indicating that they've had very good experiences with online shopping. One can delineate that there is a sweet spot regarding price brackets, with 71% of respondents indicating that their basket size range from R200 to R1999. The respondents also prefer to shop locally, with 88.8% of respondents indicating that they prefer to shop locally. It is very interesting to note that only 3.1% of respondents indicated that they don't trust any online payment method. The preferred payment methods are Credit Cards (58%), and EFTs (36.4%).

Seeing that the sample consisted of Golf enthusiasts, it is no surprise that almost two thirds (63.7%) of the respondents prefer to buy sports equipment online. Clothing and tech items such as Smart phones, tablets, and PC's are also rather popular items to buy online among the respondents with 27.5% and 20.6% respectively. It is rather safe to conclude that when respondents buy sports equipment, they prefer to buy branded sports equipment as opposed to generic or the cheapest items, with a majority of 76.4% of respondents indicating that they prefer to buy branded items and 63.7% indicating that they prefer to buy sports equipment online. This conclusion is further supported with 77.5% of respondents indicating that they've purchased sports equipment online. The feedback from the respondents indicates that sports equipment is not bought instinctively, but only after thorough investigation and research.

### 3.4.3. Sports participation profile

More than half of the respondents participate in an individual sport (51.6%), but it is very interesting to note that 42.2% of the respondents indicated that they participate in both individual and team sports. This is supported by the feedback that 57.5% of respondents participate in more than two sports. The vast majority of respondents (70.6%) participate in sport for recreational or social reasons, and 21.9% of respondents are participating for completive reasons. Most of the respondents belong to a sports club (82.1%) and spend at least five hours (74.4%) on their sport every week, with 73.7% of respondents watching at least three hours of sport per week.

## 3.5 Discussion of results

### 3.5.1 Validity of research instruments

Welman *et al*. (2005:142) state that the validity of a test is how accurate the research findings signify what is happening. Construct validity of an instrument can best be described as the degree to which a test measures the intended construct like a theoretical concept, such as convenience as a key influencer of online shopping in this study (Welman *et al*., 2005). Confirmatory factor analysis was used to validate the construct validity of the questionnaire and to confirm that the relevant statements load onto the influential factors identified. This necessitated that a factor analysis had to be conducted on the specific questions related to each influence regarding online shopping. Kaiser's measure of sample adequacy (MSA), which indicates sample adequacy, was calculated to determine whether a factor analysis would be appropriate (Tabachnick & Fidell, 2001). The index to determine sample adequacy ranges from 0 to 1, reaching 1 when each variable is perfectly predicted by the other variables. According to Field (2005), MSA values of greater than 0.5 should be accepted. The measure can be interpreted with the following guidelines:

≥ 0.80: meritorious
0.70: middling
0.60: mediocre
0 50: miserable
< 0.50: unacceptable (Hair *et al.*, 1998).

#### *3.5.1.1 Website Features*

The results of the factor analysis related to *Website Features* when shopping online are summarised below. The overall MSA value for *Website Features* is 0.779, which is greater than 0.70, and very close to 0.80, suggesting that it's seen as middling, but very close to being meritorious.

**Table 3.7: Factor Pattern – Website Features**

| Code | Question | Website Features |
|---|---|---|
| D1_2 | Detailed product descriptions | 0.82904 |
| D1_5 | Search functionality | 0.82692 |
| D1_4 | Real time inventory display | 0.75757 |
| D1_3 | Customer reviews of the product | 0.70508 |
| D1_6 | Express Checkout (Don't want to provide unnecessary details) | 0.65771 |
| D1_1 | Superior image features like 360-degree images | 0.44156 |

Table 3.1 above and the factor analysis for *Website Features* indicates that all the items relate to one factor (Eigenvalues > 1), and one factor will be retained by the Mineigen criterion. This implies that *Website Features* is adequately measured by all the questions – D1_2, D1_5, D1_4, D1_3, D1_6, and D1_1 in order of factor load importance, and suggests that respondents found website features to be an important driving influence of online shopping. The factor loadings of all the questions exceeded the minimum required value of 0.3. Thus all questions were retained. The final communality varies between 0.19 and 0.68. The total variance explained was 51.16%.

#### *3.5.1.2 Price*

The results of the factor analysis related to *Price* when shopping online are summarised below. The overall MSA value for *Price* is 0.718, which is greater than 0.70, suggesting that it's seen as middling.

**Table 3.8: Factor Pattern – Price**

| Code | Question | Price |
|---|---|---|
| D2_2 | I find myself checking prices even for small items | 0.76052 |
| D2_3 | Online shopping makes price comparison easy | 0.75712 |
| D2_1 | Online shops offer better prices | 0.69714 |
| D2_4 | When considering where to buy sports equipment, price is my first consideration | 0.63601 |

Table 3.8 above and the factor analysis for *Price* indicates that all the items relate to one factor (Eigenvalues > 1), and one factor will be retained by the Mineigen criterion. This implies that *Price* is adequately measured by all the questions – D1_2, D2_2, D2_3, D2_1, and D2_4, in order of factor load importance, and suggests that

respondents found *Price* to be an important influence of online shopping. The factor loadings of all the questions exceeded the minimum required value of 0.3. Thus all questions were retained. The final communality varies between 0.40 and 0.58. The total variance explained was 51.05%.

#### *3.5.1.3 Convenience*

The results of the factor analysis related to *Convenience* when shopping online are summarised below. The overall MSA value for *Convenience* is 0.722, which is greater than 0.70, suggesting that the sample size is seen as middling. Exploratory factor analysis was used (Varimax rotation because of its tendency to explain high variance in exploratory research (Field, 2005: 769)). The exploratory factor analysis of *Convenience* indicates two underlying factors explaining *Convenience* as an influential variable (Eigenvalues > 1). The two factors identified were “Convenience” (CF1) and “Comfort of shopping from home” (CF2).

**Table 3.9: Rotated Factor Pattern – Convenience**

| Code | Question | Convenience CF1 | Comfort of shopping from home CF1 |
|---|---|---|---|
| D3_1 | Internet shopping is convenient | 0.84604 | |
| D3_3 | I shop online as I can shop whenever I want | 0.83300 | |
| D3_2 | I shop online where I can reduce my efforts in traveling, walking, parking, waiting, and carrying as much as possible | 0.73160 | |
| D3_4 | I shop online as I can get detailed product information online | 0.72463 | |
| D3_6 | I shop online because the nearest sport equipment shops are too far | | 0.88662 |
| D3_5 | I shop online as I do not have to leave home for shopping | | 0.57644 |

As shown in Table 3.3 above, CF1 was identified by questions D3_1, D3_3, D3_2, and D3_4 in order of factor load importance suggesting that respondents found shopping online to be a convenient way of shopping. CF2 was identified by questions D3_6 and D3_5 in order of factor load importance and indicates that respondents saw shopping

from the comfort of their own home as a crucial factor when buying products online. The factor loadings of all the questions exceeded a minimum required value of 0.3. Thus all questions were retained. The final communality varies between 0.52 and 0.77. The total variance explained was 66.37%% with CF1 explaining 46.52% and CF2 explaining 19.85% of the variance, respectively.

#### *3.5.1.4 Product Risk*

The sample statistics and factor analysis related to *Product Risk* when shopping online are summarised below. The overall MSA value for *Product Risk* is 0.678, which is greater than 0.60, suggesting that it's seen as mediocre, but very close to middling. Exploratory factor analysis was used (Varimax rotation because of its tendency to explain high variance in exploratory research (Field, 2005: 769)). The exploratory factor analysis of *Product Risk* indicates two underlying factors explaining *Product Risk* as an influential variable (Eigenvalues > 1). The two factors identified were "Tangibility" (PR1) and "Product Certainty" (PR2).

**Table 3.10: Rotated Factor Pattern – Product Risk**

| Code | Question | Tangibility (PR1) | Product Certainty PR2 |
|---|---|---|---|
| D4_4 | I find it difficult to judge the quality of the product from online platforms | 0.82458 | |
| D4_1 | I want to see and touch products before I buy them | 0.78889 | |
| D4_5 | I am unable to examine the product when I shop online | 0.76397 | |
| D4_2 | I use online shopping for buying products of brands which are otherwise not easily available in a nearby shop or are unique (new) | | 0.85632 |
| D4_3 | I am confident that I will get what I ordered through online shopping | | 0.64625 |

As shown in Table 3.4 above, PR1 was identified by questions D4_4, D4_1, and D4_5 in order of factor load importance and suggests that respondents still want to see, touch and feel products when shopping. This could potentially be one of the stumbling blocks of e-tailing. PR2 was identified by questions D4_2 and D4_3 in order of factor load importance and indicates that respondents are confident that they would receive what they ordered online. The factor loadings of all the questions exceeded a minimum

required value of 0.3. Thus all questions were retained. The final communality varies between 0.59 and 0.74. The total variance explained was 65.16%% with PR1 explaining 41.99% and PR2 explaining 23.17% of the variance, respectively.

#### *3.5.1.5 Geographic Distance*

The sample statistics and factor analysis related to *Geographic Distance* when shopping online are summarised below. The overall MSA value for *Geographic Distance* is 0.671, which is greater than 0.60, suggesting that it's seen as mediocre, but very close to middling.

**Table 3.11: Factor Pattern – Geographic Distance**

| Code | Question | Geographical Distance |
|---|---|---|
| D5_3 | With traveling costs constantly increasing, I prefer shopping online | 0.88202 |
| D5_2 | It's not worth traveling the distance when I can rather shop online | 0.88132 |
| D5_1 | I prefer to shop online as the nearest physical store is too far away | 0.76781 |

Table 3.11 above and the factor analysis for *Geographic Distance* indicates that all the items relate to one factor (Eigenvalues > 1), and one factor will be retained by the Mineigen criterion. This implies that *Geographic Distance* is adequately measured by all the questions – D5_3, D5_2, and D5_1, in order of factor load importance, and suggests that respondents found *Geographic Distance* to be an important influence of online shopping. The factor loadings of all the questions exceeded the minimum required value of 0.3. Thus all questions were retained. The final communality varies between 0.59 and 0.78. The total variance explained was 71.47%.

#### *3.5.1.6 Product Variety*

The sample statistics and factor analysis related to *Product Variety* when shopping online are summarised below. The overall MSA value for *Product Variety* is 0.747, which is greater than 0.70, suggesting that it's seen as middling.

**Table 3.12: Factor Pattern – Product Variety**

| Code | Question | Product Variety |
|---|---|---|
| D6_3 | I shop online as I get broader selection of products | 0.86626 |
| D6_4 | I like to browse the various categories on a site when doing my shopping | 0.79977 |
| D6_1 | Internet shopping provides more variety of products | 0.76713 |
| D6_2 | Web vendors offer more useful information about the different choices | 0.71733 |
| D6_5 | When searching for something to buy, I like to examine several search results even if the first one is exactly what I want | 0.64126 |
| D6_6 | When shopping online, I find myself buying impulsively, and buy extra stuff that I did not intend buying initially | |

Table 3.6 above and the factor analysis for *Product Variety* indicates that all the items relate to one factor (Eigenvalues > 1), and one factor will be retained by the Mineigen criterion. This implies that *Product Variety* is adequately measured by all the questions – D6_3, D6_4, D6_1, D6_2, D6_5, and D6_6, in order of factor load importance, and suggests that respondents found *Product Variety* to be an important influence of online shopping and that online shopping provides a wider selection of product. The factor loadings of all the questions exceeded the minimum required value of 0.3. Thus all questions were retained. The final communality varies between 0.08 and 0.75. The total variance explained was 49.78%.

#### *3.5.1.7 Service Quality*

The sample statistics and factor analysis related to *Service Quality* when shopping online are summarised below. The overall MSA value for *Service Quality* is 0.566, which is greater than 0.50, suggesting that it's seen as miserable, but more than the required 0.5 according to Field (2005). Exploratory factor analysis was used (Varimax rotation because of its tendency to explain high variance in exploratory research (Field, 2005: 769)). The exploratory factor analysis of *Service Quality* indicates two underlying factors explaining *Service Quality* as an influential variable (Eigenvalues > 1). The two factors identified were "Tangibility" (SQ1) and "Product Certainty" (SQ2).

**Table 3.13: Rotated Factor Pattern – Service Quality**

| Code | Service Quality | Factor 1 | Factor 2 |
|---|---|---|---|
| D7_4 | I only buy products online that are supported with product guarantees and warranties | 0.80317 | |
| D7_1 | I would be more likely to shop online if product returns were easier | 0.75621 | |
| D7_3 | I get better service when shopping on the Internet than traditional retail stores | | 0.81827 |
| D7_5 | Getting good after sales service is quick and easy for online purchases | | 0.73066 |
| D7_2 | Traditional retail stores offer me better services than online stores | 0.57769 | |

As shown in Table 3.7 above, SQ1 was identified by questions D7_4, D7_1, and D7_2 in order of factor load importance and suggests that respondents require a certain level of service from online vendors. SQ2 was identified by questions D7_3 and D7_5 in order of factor load importance and indicates that respondents see service quality as an important influence to shop online.

#### *3.5.1.8 Website Functionality*

The sample statistics and factor analysis related to *Website Functionality* when shopping online are summarised below. The overall MSA value for *Website Functionality* is 0.801, which is greater than 0.80, suggesting that it's seen as meritorious. Exploratory factor analysis was used (Varimax rotation because of its tendency to explain high variance in exploratory research (Field, 2005: 769)). The exploratory factor analysis of *Website Functionality* indicates two underlying factors explaining *Website Functionality* as an influential variable (Eigenvalues > 1). The two factors identified were "Website User-friendliness" (WF1) and "Effortless Website" (WF2).

**Table 3.14: Rotated Factor Pattern – Website Functionality**

| Code | Website Functionality Questions | Website User-friendliness (WF1) | Effortless Website (WF2) |
|---|---|---|---|
| D8_4 | I would be more likely to shop online if the pictures of the items were clearer | 0.84194 | |
| D8_2 | I would be more likely to shop on the Internet if the Web site was easy to use | 0.81681 | |
| D8_7 | The ability to navigate easily through the website is important | 0.80246 | |
| D8_3 | I like to shop on the Internet where it is easy to compare many products and screen them to choose the one I like | 0.73853 | |
| D8_1 | Internet shopping is easy to do | 0.64621 | |
| D8_5 | Online shopping procedure is worry-free and effortless | | 0.88860 |
| D8_6 | Finding the right product online is easy | | 0.85956 |

As shown in Table 3.8 above, WF1 was identified by questions D8_4, D8_2, D8_7, D8_3 and D8_1 in order of factor load importance and suggests that websites should be user-friendly. WF2 was identified by questions D8_5 and D8_6 in order of factor load importance and indicates that respondents want websites to be effortless with a minimal mental effort to shop online. The factor loadings of all the questions exceeded a minimum required value of 0.3. Thus all questions were retained. The final communality varies between 0.48 and 0.79. The total variance explained was 65,55%% with WF1 explaining 49.64% and WF2 explaining 15.92% of the variance, respectively.

#### *3.5.1.9 Trust and Security*

The sample statistics and factor analysis related to *Trust and Security* when shopping online are summarised below. The overall MSA value for *Trust and Security* is 0.836, which is greater than 0.80, suggesting that it's seen as meritorious. Exploratory factor analysis was used (Varimax rotation because of its tendency to explain high variance in exploratory research (Field, 2005: 769)). The exploratory factor analysis of *Trust and Security* indicates two underlying factors explaining *Trust and Security* as an influential variable (Eigenvalues > 1). The two factors identified were "Website User-friendliness" (TS1) and "Effortless Website" (TS2).

**Table 3.15: Rotated Factor Pattern – Trust and Security**

| Code | Trust and Security | Vendor Trust (TS1) | Insured Security (TS2) |
|---|---|---|---|
| D9_6 | I'm confident that my credit-card details won't be compromised and misused if I shop online | 0.87662 | |
| D9_5 | I trust the e-tailor privacy policies specified on their web sites | 0.85072 | |
| D9_4 | I am willing to give my personal information when shopping online | 0.80062 | |
| D9_1 | I trust the security of online payment methods such as credit card | 0.77317 | |
| D9_2 | I am not concerned about possible interception of financial information by an unidentified third party | 0.69226 | |
| D9_3 | I would be more likely to shop on the internet if credit card security was insured | | 0.98958 |

As shown in Table 3.9 above, TS1 was identified by questions D9_6, D9_5, D9_4, D9_1 and D9_2 in order of factor load importance and suggests that respondents trust online shopping vendors. TS2 was identified by question D9_3 and indicates that although respondents are comfortable with their personal information, they would be even more inclined to shop online if their security was insured. The factor loadings of all the questions exceeded a minimum required value of 0.3. Thus all questions were retained. The final communality varies between 0.50 and 0.98. The total variance explained was 70,47% with TS1 explaining 53.55% and TS2 explaining 16.92% of the variance, respectively.

## 3.6 Research reliability

Cronbach alpha coefficient (α) is used to measure the reliability of the factors resulting from the confirmatory factor analysis. A Cronbach's Alpha coefficient of 0.7 and above is accepted as an indication of reliability, but according to (Field, 2014:708), in the early stages of research, values of 0.5 or above will also be sufficient. The reliability of the 9 identified influential factors with regards to online shopping is measured and summarised in Table 3.10. The table contains the original dimension, factors names, the questions that formed each factor, and the Cronbach Alpha coefficient of each extracted factor.

**Table 3.16: Reliability of the influences and their respective factors**

| Original Dimension | Factor(s) Extracted | Questions | Cronbach's α |
|---|---|---|---|
| **Website Features** | Website Features | D1_1 - D1_6 | 0,80 |
| **Price** | Price | D2_1 - D2_4 | 0,66 |
| **Convenience** | Convenience (CF1) | D3_1, D3_3, D3_2, D3_4 | 0,79 |
| | Comfort of shopping from home (CF2) | D3_6, D3_5 | **0,42** |
| **Product Risk** | Tangibility (PR1) | D4_4, D4_1, D4_5 | 0,73 |
| | Product Certainty (PR2) | D4_2, D4_3 | **0,32** |
| **Geographical Distance** | Geographical distance | D5_1 - D5_3 | 0,80 |
| **Product Variety** | Product variety | D6_1 - D6_6 | 0,75 |
| **Service Quality** | (SQ 1) | D7_4, D7_1, D7_2 | ***0,54*** |
| | (SQ 2) | D7_3, D7_5 | ***0,54*** |

**Table 3.16: Reliability of the influences and their respective factors (Continued)**

| Original Dimension | Factor(s) Extracted | Questions | Cronbach's α |
|---|---|---|---|
| **Website Functionality** | Website User-friendliness (WF1) | D8_4, D8_2, D8_7, D8_3, D8_1 | 0,83 |
| | Effortless Website (WF2) | D8_5, D8_6 | 0,72 |
| **Trust and Security** | Vendor Trust (TS1) | D9_6, D9_5, D9_4, D9_1, D9_2 | *0,86* |
| | Insured Security (TS2) | D9_3 | |

Table 3.10 indicates that the majority of the extracted factors provided satisfactory reliability coefficients with α > 0.70. Two factors (SQ1 and SQ2)'s Cronbach's Alpha was below 0.7 but did exceed the lower reliability guideline value of α > 0.5. Two factors (CF2 and PR2) however did not reach the desired minimum 0.5 reliability guideline value and were thus regarded as not reliable. It is important to note that these unreliable factors are both secondary factors and not the primary factor related to the identified online shopping influence. The Cronbach Alpha values are demonstrative of the odds that each factor will introduce itself again if the study was to be repeated in an alternate application setting. A higher α-value will more than likely present itself again as opposed to a lower α-value that will be less inclined to introduce itself again. It is noteworthy to point out that the questions related to PR2 (Product Certainty), could've been because of the phrasing of the questions, and can, therefore, explain the low α-value.

## 3.7 T-Tests

A T-test aims to test the difference between the means of two identified groups (Field, 2014: 364). A p-value < 0.05 shows that the means of the two identified groups are significantly different (Field, 2014:377). This study made use of a convenience sample instead of a random sample, and thus, the p-values were reported for completeness sake, but won't be interpreted. Ellis and Steyn (2003) state that sometimes information

obtained from convenience sampling are wrongly dissected as though it were acquired by random sampling. This information, however, ought to be considered as small populations for which statistical inferences and p-values are irrelevant. Statistical inferences reach determinations about the population from which a random sample was drawn, utilising the descriptive measures that have been ascertained. Rather than just revealing descriptive statistics in the case of a non-random sampling, effect sizes can be used to indicate practical significance. Practical significance can be comprehended as a sufficiently vast distinction to have an impact in practice.

## 3.8 Effect sizes

Cohen's d will be used as an effect size for this study. Cohen (1988) provides the following guidelines for the interpretation of the effect size (Ellis & Steyn, 2003:52):

i. Small effect (No practical significant difference): d = 0.2
ii. Medium effect (Practical visible difference): d = 0.5
iii. Large effect (Significant practical difference): d = 0.8

Tables 3.11 – 17 reveal the T-tests that were conducted to determine whether a practically significant difference between the mean factors scores existed between the following groups:

- Respondents residing in an urban community type and those residing outside of an urban area (Question A5).
- Respondents earning more than R30 000 per month and those earning less than R30 000 per month (Question A7).
- Respondents using smart phones and tablets for online shopping, and those using laptops and PC's (Question B5).
- Respondents that prefer to buy branded products as opposed to those that prefer generic products (Question B12).
- Where respondents find "cues" to shop online (Question B15), and this was grouped in:
    - Searching the Internet (B15_1)
    - E-mail advertisements (B15_2)
    - Facebook (B15_2)

There were no practically significant differences found in the above groups, except respondents that prefer to buy branded products as opposed to generic products (B12).

Table 3.14 indicates these tests and revealed an effect size of 0.62 (p-value of 0.022) for *Product Variety,* signifying that there is a practically visible difference between branded (mean = 2.91, SD = 0.43) and generic products (mean = 2.64, SD = 0.45) when it comes to *Product Variety*. The respondents that indicated that they prefer branded products on average agreed with the statements, and the respondents that prefer generic products also agreed but leaned somewhat more towards disagree. With an effect size of 0.82 (p-value of 0.001), there was a practically significant difference related to *SQ1 (Service Quality)* between these two types of respondents. The respondents that preferred branded products (mean = 2.69, SD = 0.59) leaned towards agreeing with the statements whereas the respondents that prefer generic products (mean = 2.23, SD = 0.45) on average disagreed. *WF1 (Website Functionality 1)* also revealed a visible practical difference with an effect size of 0.50 (p-value of 0.037). In this case, both groups agreed with the statements, means 3.21 (SD = 0.47) and 2.97 (0.43) respectively for the branded and generic respondents. However, the branded group leaned somewhat towards strongly agree.

**Table 3.17: Effect size of community types**

| A5_grouped | | N | Mean | Std. Deviation | P-Value | Effect size |
|---|---|---|---|---|---|---|
| D1_WebsiteFeat | Urban | 85 | 3,1780 | 0,45651 | 0,436 | 0,12 |
| | Other | 76 | 3,1219 | 0,45423 | | |
| D2_Price | Urban | 84 | 2,9802 | 0,48048 | 0,446 | 0,11 |
| | Other | 77 | 2,9253 | 0,42932 | | |
| D3_Convenience | Urban | 84 | 3,0308 | 0,50958 | 0,916 | 0,02 |
| | Other | 77 | 3,0390 | 0,47997 | | |
| D3_Q5 | Urban | 83 | 2,7229 | 0,78575 | 0,042 | 0,32 |
| | Other | 77 | 2,4675 | 0,78781 | | |
| D3_Q6 | Urban | 83 | 2,2289 | 0,77026 | 0,331 | 0,15 |
| | Other | 77 | 2,3506 | 0,80731 | | |
| D4_ProductRisk | Urban | 84 | 2,6230 | 0,55193 | 0,229 | 0,19 |
| | Other | 77 | 2,7273 | 0,54270 | | |
| D4_Q2 | Urban | 84 | 2,8810 | 0,70120 | 0,713 | 0,06 |
| | Other | 76 | 2,8421 | 0,63356 | | |
| D4_Q3 | Urban | 84 | 2,9405 | 0,56720 | 0,811 | 0,04 |
| | Other | 77 | 2,9610 | 0,52419 | | |
| D5_GeoDistance | Urban | 84 | 2,4246 | 0,61952 | 0,343 | 0,15 |
| | Other | 77 | 2,5195 | 0,64321 | | |
| D6_ProductVariety | Urban | 84 | 2,8845 | 0,46917 | 0,542 | 0,09 |
| | Other | 76 | 2,8443 | 0,36141 | | |
| D7_ServiceQuality1 | Urban | 84 | 2,7381 | 0,44832 | 0,616 | 0,08 |
| | Other | 76 | 2,7763 | 0,50885 | | |
| D7_ServiceQuality2 | Urban | 84 | 2,7083 | 0,54446 | 0,051 | 0,31 |
| | Other | 77 | 2,5390 | 0,54872 | | |
| D8_WebsiteFunc1 | Urban | 84 | 3,1595 | 0,43106 | 0,663 | 0,07 |
| | Other | 76 | 3,1917 | 0,49274 | | |
| D8_WebsiteFunc2 | Urban | 84 | 2,8571 | 0,60406 | 0,665 | 0,06 |
| | Other | 76 | 2,8947 | 0,49204 | | |
| D9_TrustAndSec | Urban | 84 | 2,5107 | 0,56334 | 0,485 | 0,11 |
| | Other | 76 | 2,4447 | 0,62277 | | |
| D9_Q3 | Urban | 84 | 3,0357 | 0,66670 | 0,033 | 0,32 |
| | Other | 76 | 3,2500 | 0,59161 | | |

**Table 3.18: Effect size of average monthly salary**

| A7_grouped | | N | Mean | Std. Deviation | P-Value | Effect size |
|---|---|---|---|---|---|---|
| D1_WebsiteFeat | R0 - R29 999.99 | 95 | 3,1305 | 0,45634 | 0,530 | 0,10 |
| | R30 000+ | 64 | 3,1771 | 0,45704 | | |
| D2_Price | R0 - R29 999.99 | 95 | 2,9816 | 0,43644 | 0,385 | 0,13 |
| | R30 000+ | 64 | 2,9154 | 0,49076 | | |
| D3_Convenience | R0 - R29 999.99 | 95 | 3,0404 | 0,48284 | 0,987 | 0,00 |
| | R30 000+ | 64 | 3,0391 | 0,51219 | | |
| D3_Q5 | R0 - R29 999.99 | 94 | 2,6596 | 0,81059 | 0,318 | 0,16 |
| | R30 000+ | 64 | 2,5313 | 0,77600 | | |
| D3_Q6 | R0 - R29 999.99 | 94 | 2,3298 | 0,76746 | 0,466 | 0,11 |
| | R30 000+ | 64 | 2,2344 | 0,83080 | | |
| D4_ProductRisk | R0 - R29 999.99 | 95 | 2,7333 | 0,52050 | 0,040 | 0,33 |
| | R30 000+ | 64 | 2,5521 | 0,55147 | | |
| D4_Q2 | R0 - R29 999.99 | 94 | 2,8723 | 0,64314 | 0,981 | 0,00 |
| | R30 000+ | 64 | 2,8750 | 0,70147 | | |
| D4_Q3 | R0 - R29 999.99 | 95 | 2,9263 | 0,51036 | 0,529 | 0,10 |
| | R30 000+ | 64 | 2,9844 | 0,60401 | | |
| D5_GeoDistance | R0 - R29 999.99 | 95 | 2,5053 | 0,64295 | 0,414 | 0,13 |
| | R30 000+ | 64 | 2,4219 | 0,62075 | | |
| D6_ProductVariety | R0 - R29 999.99 | 94 | 2,8649 | 0,40319 | 0,886 | 0,02 |
| | R30 000+ | 64 | 2,8750 | 0,45134 | | |
| D7_ServiceQuality1 | R0 - R29 999.99 | 94 | 2,7482 | 0,45774 | 0,677 | 0,06 |
| | R30 000+ | 64 | 2,7813 | 0,50820 | | |
| D7_ServiceQuality2 | R0 - R29 999.99 | 95 | 2,6789 | 0,51528 | 0,207 | 0,19 |
| | R30 000+ | 64 | 2,5625 | 0,60093 | | |
| D8_WebsiteFunc1 | R0 - R29 999.99 | 94 | 3,1528 | 0,45961 | 0,429 | 0,13 |
| | R30 000+ | 64 | 3,2125 | 0,46718 | | |
| D8_WebsiteFunc2 | R0 - R29 999.99 | 94 | 2,8830 | 0,51025 | 0,932 | 0,01 |
| | R30 000+ | 64 | 2,8750 | 0,61075 | | |
| D9_TrustAndSec | R0 - R29 999.99 | 94 | 2,4617 | 0,58587 | 0,636 | 0,08 |
| | R30 000+ | 64 | 2,5078 | 0,60770 | | |
| D9_Q3 | R0 - R29 999.99 | 94 | 3,1596 | 0,62739 | 0,636 | 0,07 |
| | R30 000+ | 64 | 3,1094 | 0,66945 | | |

**Table 3.19: Effect size of preferred device for online shopping**

| B5_grouped | | N | Mean | Std. Deviation | P-Value | Effect size |
|---|---|---|---|---|---|---|
| D1_WebsiteFeat | Smart phone and Tablet | 88 | 3,1443 | 0,44512 | 0,734 | 0,05 |
| | Laptop and PC | 68 | 3,1696 | 0,47097 | | |
| D2_Price | Smart phone and Tablet | 88 | 2,9782 | 0,43172 | 0,621 | 0,08 |
| | Laptop and PC | 67 | 2,9403 | 0,50017 | | |
| D3_Convenience | Smart phone and Tablet | 88 | 3,0407 | 0,52370 | 0,883 | 0,02 |
| | Laptop and PC | 67 | 3,0522 | 0,44919 | | |
| D3_Q5 | Smart phone and Tablet | 87 | 2,6437 | 0,80662 | 0,554 | 0,09 |
| | Laptop and PC | 67 | 2,5672 | 0,78284 | | |
| D3_Q6 | Smart phone and Tablet | 87 | 2,4023 | 0,79912 | 0,028 | 0,35 |
| | Laptop and PC | 67 | 2,1194 | 0,76915 | | |
| D4_ProductRisk | Smart phone and Tablet | 88 | 2,6061 | 0,53854 | 0,177 | 0,22 |
| | Laptop and PC | 67 | 2,7264 | 0,55330 | | |
| D4_Q2 | Smart phone and Tablet | 88 | 2,8750 | 0,62169 | 0,853 | 0,03 |
| | Laptop and PC | 67 | 2,8955 | 0,72057 | | |
| D4_Q3 | Smart phone and Tablet | 88 | 2,9886 | 0,51404 | 0,704 | 0,06 |
| | Laptop and PC | 67 | 2,9552 | 0,56227 | | |
| D5_GeoDistance | Smart phone and Tablet | 88 | 2,5189 | 0,66831 | 0,401 | 0,13 |
| | Laptop and PC | 67 | 2,4328 | 0,60027 | | |
| D6_ProductVariety | Smart phone and Tablet | 88 | 2,8936 | 0,45068 | 0,414 | 0,12 |
| | Laptop and PC | 67 | 2,8383 | 0,38705 | | |
| D7_ServiceQuality1 | Smart phone and Tablet | 88 | 2,7386 | 0,48331 | 0,417 | 0,13 |
| | Laptop and PC | 67 | 2,8010 | 0,46442 | | |
| D7_ServiceQuality2 | Smart phone and Tablet | 88 | 2,6534 | 0,58407 | 0,697 | 0,06 |
| | Laptop and PC | 67 | 2,6194 | 0,50068 | | |
| D8_WebsiteFunc1 | Smart phone and Tablet | 88 | 3,1716 | 0,40823 | 0,655 | 0,07 |
| | Laptop and PC | 66 | 3,2061 | 0,51676 | | |
| D8_WebsiteFunc2 | Smart phone and Tablet | 88 | 2,9432 | 0,50533 | 0,296 | 0,16 |
| | Laptop and PC | 66 | 2,8485 | 0,58815 | | |
| D9_TrustAndSec | Smart phone and Tablet | 88 | 2,5784 | 0,55096 | 0,067 | 0,29 |
| | Laptop and PC | 66 | 2,4061 | 0,59014 | | |
| D9_Q3 | Smart phone and Tablet | 88 | 3,0909 | 0,65454 | 0,314 | 0,16 |
| | Laptop and PC | 66 | 3,1970 | 0,63778 | | |

**Table 3.20: Effect size of branded vs generic products**

| B12_grouped | | N | Mean | Std. Deviation | P-Value | Effect size |
|---|---|---|---|---|---|---|
| D1_WebsiteFeat | Branded | 123 | 3,1699 | 0,49453 | 0,294 | 0,16 |
| | Generic | 18 | 3,0926 | 0,24403 | | |
| D2_Price | Branded | 122 | 2,9720 | 0,45031 | 0,237 | 0,29 |
| | Generic | 19 | 2,8026 | 0,58082 | | |
| D3_Convenience | Branded | 122 | 3,0615 | 0,49094 | 0,082 | 0,44 |
| | Generic | 19 | 2,8070 | 0,57672 | | |
| D3_Q5 | Branded | 122 | 2,6311 | 0,79462 | 0,313 | 0,23 |
| | Generic | 18 | 2,4444 | 0,70479 | | |
| D3_Q6 | Branded | 122 | 2,2787 | 0,79526 | 0,127 | 0,28 |
| | Generic | 18 | 2,5000 | 0,51450 | | |
| D4_ProductRisk | Branded | 122 | 2,6475 | 0,55264 | 0,224 | 0,26 |
| | Generic | 19 | 2,7895 | 0,44736 | | |
| D4_Q2 | Branded | 122 | 2,9016 | 0,68526 | 0,933 | 0,02 |
| | Generic | 18 | 2,8889 | 0,58298 | | |
| D4_Q3 | Branded | 122 | 3,0082 | 0,53776 | 0,111 | 0,41 |
| | Generic | 19 | 2,7895 | 0,53530 | | |
| D5_GeoDistance | Branded | 122 | 2,4836 | 0,65570 | 0,850 | 0,04 |
| | Generic | 19 | 2,5088 | 0,51362 | | |
| D6_ProductVariety | Branded | 122 | 2,9191 | 0,42917 | 0,022 | 0,62 |
| | Generic | 18 | 2,6389 | 0,45103 | | |
| D7_ServiceQuality1 | Branded | 122 | 2,7568 | 0,47920 | 0,983 | 0,01 |
| | Generic | 18 | 2,7593 | 0,45454 | | |
| D7_ServiceQuality2 | Branded | 122 | 2,6926 | 0,55836 | 0,001 | 0,82 |
| | Generic | 19 | 2,2368 | 0,45241 | | |
| D8_WebsiteFunc1 | Branded | 121 | 3,2058 | 0,46838 | 0,037 | 0,50 |
| | Generic | 19 | 2,9719 | 0,42532 | | |
| D8_WebsiteFunc2 | Branded | 121 | 2,9256 | 0,58331 | 0,070 | 0,41 |
| | Generic | 19 | 2,6842 | 0,50581 | | |
| D9_TrustAndSec | Branded | 121 | 2,5215 | 0,58669 | 0,102 | 0,42 |
| | Generic | 19 | 2,2632 | 0,61843 | | |
| D9_Q3 | Branded | 121 | 3,1488 | 0,67898 | 0,318 | 0,22 |
| | Generic | 19 | 3,0000 | 0,57735 | | |

**Table 3.21: Effect size of cues for online shopping – Internet**

| B15_1 | | N | Mean | Std. Deviation | P-Value | Effect size |
|---|---|---|---|---|---|---|
| D1_WebsiteFeat | Selected | 96 | 3,1507 | 0,47225 | 0,976 | 0,00 |
| | Not Selected | 65 | 3,1528 | 0,43156 | | |
| D2_Price | Selected | 96 | 2,9253 | 0,48973 | 0,317 | 0,14 |
| | Not Selected | 65 | 2,9962 | 0,40139 | | |
| D3_Convenience | Selected | 96 | 3,0712 | 0,50998 | 0,248 | 0,18 |
| | Not Selected | 65 | 2,9808 | 0,46835 | | |
| D3_Q5 | Selected | 96 | 2,6146 | 0,79960 | 0,777 | 0,05 |
| | Not Selected | 64 | 2,5781 | 0,79292 | | |
| D3_Q6 | Selected | 96 | 2,2292 | 0,85198 | 0,232 | 0,17 |
| | Not Selected | 64 | 2,3750 | 0,67847 | | |
| D4_ProductRisk | Selected | 96 | 2,6111 | 0,47058 | 0,102 | 0,24 |
| | Not Selected | 65 | 2,7641 | 0,63934 | | |
| D4_Q2 | Selected | 96 | 2,9167 | 0,67538 | 0,207 | 0,20 |
| | Not Selected | 64 | 2,7813 | 0,65390 | | |
| D4_Q3 | Selected | 96 | 3,0104 | 0,51288 | 0,098 | 0,26 |
| | Not Selected | 65 | 2,8615 | 0,58301 | | |
| D5_GeoDistance | Selected | 96 | 2,4306 | 0,61543 | 0,343 | 0,15 |
| | Not Selected | 65 | 2,5282 | 0,65323 | | |
| D6_ProductVariety | Selected | 96 | 2,8819 | 0,42158 | 0,544 | 0,10 |
| | Not Selected | 64 | 2,8406 | 0,42128 | | |
| D7_ServiceQuality1 | Selected | 96 | 2,7639 | 0,44830 | 0,811 | 0,04 |
| | Not Selected | 64 | 2,7448 | 0,52028 | | |
| D7_ServiceQuality2 | Selected | 96 | 2,6042 | 0,51767 | 0,531 | 0,10 |
| | Not Selected | 65 | 2,6615 | 0,60018 | | |
| D8_WebsiteFunc1 | Selected | 95 | 3,1800 | 0,51542 | 0,855 | 0,02 |
| | Not Selected | 65 | 3,1672 | 0,36858 | | |
| D8_WebsiteFunc2 | Selected | 95 | 2,9053 | 0,55205 | 0,404 | 0,13 |
| | Not Selected | 65 | 2,8308 | 0,55394 | | |
| D9_TrustAndSec | Selected | 95 | 2,5600 | 0,53761 | 0,044 | 0,31 |
| | Not Selected | 65 | 2,3615 | 0,64848 | | |
| D9_Q3 | Selected | 95 | 3,1158 | 0,68204 | 0,593 | 0,08 |
| | Not Selected | 65 | 3,1692 | 0,57471 | | |

**Table 3.22: Effect size of cues for online shopping – e-mail**

| B15_2 | | N | Mean | Std. Deviation | P-Value | Effect size |
|---|---|---|---|---|---|---|
| D1_WebsiteFeat | Selected | 54 | 3,1821 | 0,45703 | 0,548 | 0,10 |
| | Not Selected | 107 | 3,1361 | 0,45516 | | |
| D2_Price | Selected | 54 | 2,9722 | 0,36234 | 0,690 | 0,06 |
| | Not Selected | 107 | 2,9447 | 0,49815 | | |
| D3_Convenience | Selected | 54 | 3,0278 | 0,47001 | 0,898 | 0,02 |
| | Not Selected | 107 | 3,0382 | 0,50797 | | |
| D3_Q5 | Selected | 54 | 2,4815 | 0,79481 | 0,180 | 0,23 |
| | Not Selected | 106 | 2,6604 | 0,79146 | | |
| D3_Q6 | Selected | 54 | 2,2778 | 0,76273 | 0,910 | 0,02 |
| | Not Selected | 106 | 2,2925 | 0,80436 | | |
| D4_ProductRisk | Selected | 54 | 2,5679 | 0,51652 | 0,077 | 0,28 |
| | Not Selected | 107 | 2,7259 | 0,55855 | | |
| D4_Q2 | Selected | 54 | 2,8889 | 0,66351 | 0,722 | 0,06 |
| | Not Selected | 106 | 2,8491 | 0,67319 | | |
| D4_Q3 | Selected | 54 | 3,0000 | 0,51396 | 0,400 | 0,13 |
| | Not Selected | 107 | 2,9252 | 0,56135 | | |
| D5_GeoDistance | Selected | 54 | 2,4753 | 0,57042 | 0,937 | 0,01 |
| | Not Selected | 107 | 2,4673 | 0,66171 | | |
| D6_ProductVariety | Selected | 54 | 2,8056 | 0,34983 | 0,165 | 0,20 |
| | Not Selected | 106 | 2,8959 | 0,45095 | | |
| D7_ServiceQuality1 | Selected | 54 | 2,7346 | 0,41653 | 0,664 | 0,06 |
| | Not Selected | 106 | 2,7673 | 0,50640 | | |
| D7_ServiceQuality2 | Selected | 54 | 2,6204 | 0,49464 | 0,905 | 0,02 |
| | Not Selected | 107 | 2,6308 | 0,58008 | | |
| D8_WebsiteFunc1 | Selected | 54 | 3,2204 | 0,40159 | 0,343 | 0,14 |
| | Not Selected | 106 | 3,1516 | 0,48752 | | |
| D8_WebsiteFunc2 | Selected | 54 | 2,8056 | 0,49921 | 0,236 | 0,18 |
| | Not Selected | 106 | 2,9104 | 0,57651 | | |
| D9_TrustAndSec | Selected | 54 | 2,4000 | 0,54531 | 0,210 | 0,20 |
| | Not Selected | 106 | 2,5198 | 0,61201 | | |
| D9_Q3 | Selected | 54 | 3,1481 | 0,59582 | 0,877 | 0,02 |
| | Not Selected | 106 | 3,1321 | 0,66297 | | |

**Table 3.23: Effect size of cues for online shopping – Facebook**

| B15_3 | | N | Mean | Std. Deviation | P-Value | Effect size |
|---|---|---|---|---|---|---|
| D1_WebsiteFeat | Selected | 93 | 3,1391 | 0,44742 | 0,687 | 0,06 |
| | Not Selected | 68 | 3,1686 | 0,46769 | | |
| D2_Price | Selected | 93 | 2,9516 | 0,44730 | 0,941 | 0,01 |
| | Not Selected | 68 | 2,9571 | 0,47129 | | |
| D3_Convenience | Selected | 93 | 2,9946 | 0,49997 | 0,228 | 0,19 |
| | Not Selected | 68 | 3,0895 | 0,48427 | | |
| D3_Q5 | Selected | 92 | 2,6196 | 0,80986 | 0,717 | 0,06 |
| | Not Selected | 68 | 2,5735 | 0,77875 | | |
| D3_Q6 | Selected | 92 | 2,2826 | 0,77497 | 0,928 | 0,01 |
| | Not Selected | 68 | 2,2941 | 0,81146 | | |
| D4_ProductRisk | Selected | 93 | 2,6595 | 0,55816 | 0,717 | 0,06 |
| | Not Selected | 68 | 2,6912 | 0,53815 | | |
| D4_Q2 | Selected | 93 | 2,8710 | 0,66309 | 0,852 | 0,03 |
| | Not Selected | 67 | 2,8507 | 0,67988 | | |
| D4_Q3 | Selected | 93 | 2,8495 | 0,57002 | 0,005 | 0,42 |
| | Not Selected | 68 | 3,0882 | 0,48053 | | |
| D5_GeoDistance | Selected | 93 | 2,4301 | 0,62666 | 0,351 | 0,15 |
| | Not Selected | 68 | 2,5245 | 0,63694 | | |
| D6_ProductVariety | Selected | 93 | 2,8706 | 0,44027 | 0,852 | 0,03 |
| | Not Selected | 67 | 2,8582 | 0,39489 | | |
| D7_ServiceQuality1 | Selected | 93 | 2,7527 | 0,48380 | 0,911 | 0,02 |
| | Not Selected | 67 | 2,7612 | 0,47071 | | |
| D7_ServiceQuality2 | Selected | 93 | 2,6398 | 0,58684 | 0,732 | 0,05 |
| | Not Selected | 68 | 2,6103 | 0,50257 | | |
| D8_WebsiteFunc1 | Selected | 93 | 3,2161 | 0,44801 | 0,186 | 0,21 |
| | Not Selected | 67 | 3,1174 | 0,47398 | | |
| D8_WebsiteFunc2 | Selected | 93 | 2,9032 | 0,56269 | 0,445 | 0,12 |
| | Not Selected | 67 | 2,8358 | 0,53928 | | |
| D9_TrustAndSec | Selected | 93 | 2,4462 | 0,54064 | 0,420 | 0,12 |
| | Not Selected | 67 | 2,5254 | 0,65675 | | |
| D9_Q3 | Selected | 93 | 3,1075 | 0,63353 | 0,488 | 0,11 |
| | Not Selected | 67 | 3,1791 | 0,64960 | | |

## 3.9 Research variables discussion

The questionnaire was designed on a 4-point Likert scale to measure the influential factors of online shopping with the following available options:

- Strongly Agree (4)
- Agree (3)
- Disagree (2)
- Strongly Disagree (1)

### 3.9.1 Website Features

The mean scores of the questions regarding *Website Features* as an influential factor are summarised in Table 3.18 below.

**Table 3.24: Mean scores of questions regarding Website Features**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D1_1 | Superior image features like 360-degree images | 2,93 | 0,643 |
| D1_2 | Detailed product descriptions | 3,37 | 0,591 |
| D1_3 | Customer reviews of the product | 3,09 | 0,699 |
| D1_4 | Real time inventory display | 3,14 | 0,639 |
| D1_5 | Search functionality | 3,22 | 0,635 |
| D1_6 | Express Checkout (Don't want to provide unnecessary details) | 3,17 | 0,677 |

The mean for Website Features is 3.15, and all the questions related to *Website Features* reported a mean value over or very close to 3, suggesting that the respondents agreed that website features are essential to follow through on their purchases when conducting online shopping. Respondents indicated that detailed product descriptions are essential features of a website for them to follow through on their purchase.

### 3.9.2 Price

The mean scores of the questions regarding *Price* as an influential factor are summarised in Table 3.18 below.

**Table 3.25: Mean scores of questions regarding Price**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D2_1 | Online shops offer better prices | 2,86 | 0,671 |
| D2_2 | I find myself checking prices even for small items | 2,91 | 0,618 |
| D2_3 | Online shopping makes price comparison easy | 3,18 | 0,497 |
| D2_4 | When considering where to buy sports equipment, price is my first consideration | 2,87 | 0,753 |

Price had a mean of 2.95 and all four questions related to Price had mean values that are very close to 3, which means that *Price* is a factor when respondents are considering online shopping. Price comparison stood out with a mean of 3.18, suggesting that respondents agree that price comparison is easy in an online shopping environment.

### 3.9.3 Convenience

The mean scores of the questions regarding *Convenience* as an influential factor are summarised in Table 3.20 below:

**Table 3.26: Mean scores of questions regarding Convenience**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D3_1 | Internet shopping is convenient | 3,22 | 0,510 |
| D3_2 | I shop online where I can reduce my efforts in traveling, walking, parking, waiting, and carrying as much as possible | 2,87 | 0,728 |
| D3_3 | I shop online as I can shop whenever I want | 3,03 | 0,619 |
| D3_4 | I shop online as I can get detailed product information online | 3,03 | 0,650 |
| D3_5 | I shop online as I do not have to leave home for shopping | 2,60 | 0,795 |
| D3_6 | I shop online because the nearest sport equipment shops are too far | 2,29 | 0,788 |

Convenience had a mean of 2.84, which is very close to 3, suggesting that Convenience is an important, influential factor when shopping online. Question D3_1 also confirm this with a mean of 3.22 where respondents agree that online shopping is convenient.

### 3.9.4 Product Risk

The mean scores of the questions regarding *Product Risk* as an influential factor are summarised in Table 3.18 below.

**Table 3.27: Mean scores of questions regarding Product Risk**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D4_1 | I want to see and touch products before I buy them | 2,56 | 0,697 |
| D4_2 | I use online shopping for buying products of brands which are otherwise not easily available in a nearby shop or are unique (new) | 2,86 | 0,668 |
| D4_3 | I am confident that I will get what I ordered through online shopping | 2,95 | 0,545 |
| D4_4 | I find it difficult to judge the quality of the product from online platforms | 2,60 | 0,656 |
| D4_5 | I am unable to examine the product when I shop online | 2,86 | 0,694 |

Product Risk had a mean value of 2.77. It is, however, important to examine the questions about product risk on an individual basis to gain a better understanding. D4_1 had a mean value of 2.56, which suggests that respondents are not entirely convinced that they want to see and touch products before they buy them. D4_3 also suggested that respondents are comfortable that they will receive what they ordered.

### 3.9.5 Geographical Distance

The mean scores of the questions regarding *Geographical Distance* as an influential factor are summarised in Table 3.28 below:

**Table 3.28: Mean scores of questions regarding Geographical Distance**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D5_1 | I prefer to shop online as the nearest physical store is too far away | 2,36 | 0,779 |
| D5_2 | It's not worth traveling the distance when I can rather shop online | 2,57 | 0,722 |
| D5_3 | With traveling costs constantly increasing, I prefer shopping online | 2,48 | 0,744 |

Geographical Distance's mean was 2.47, in this way distance does not appear to be an integral factor for somebody to shop online remembering that most of the respondents resided in Gauteng, which is a small province in length and width compared to other provinces. This recommends despite the fact that buyers saw the benefit of shopping online; therefore, saving time and money on transportation costs, they didn't lean toward online shopping as opposed to bricks and mortar shopping because the bricks and mortar shops were too far away.

### 3.9.6 Product Variety

The mean scores of the questions regarding *Product Variety* as an influential factor are summarised in Table 3.18 below.

**Table 3.29: Mean scores of questions regarding Product Variety**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D6_1 | Internet shopping provides more variety of products | 2,99 | 0,634 |
| D6_2 | Web vendors offer more useful information about the different choices | 2,91 | 0,612 |
| D6_3 | I shop online as I get broader selection of products | 2,94 | 0,603 |
| D6_4 | I like to browse the various categories on a site when doing my shopping | 3,06 | 0,482 |
| D6_5 | When searching for something to buy, I like to examine several search results even if the first one is exactly what I want | 3,04 | 0,582 |
| D6_6 | When shopping online, I find myself buying impulsively, and buy extra stuff that I did not intend buying initially | 2,26 | 0,813 |

*Product Variety* had a mean of 2.86. Which confirms the feeling of the respondents that e-tailers provide more product variety.

### 3.9.7 Service Quality

The mean scores of the questions regarding *Service Quality* as an influential factor are summarised in Table 3.30 below.

**Table 3.30: Mean scores of questions regarding Service Quality**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D7_1 | I would be more likely to shop online if product returns were easier | 2,98 | 0,588 |
| D7_2 | Traditional retail stores offer me better services than online stores | 2,38 | 0,680 |
| D7_3 | I get better service when shopping on the Internet than traditional retail stores | 2,55 | 0,672 |
| D7_4 | I only buy products online that are supported with product guarantees and warranties | 2,91 | 0,704 |
| D7_5 | Getting good after sales service is quick and easy for online purchases | 2,71 | 0,641 |

The mean for Service Quality was 3.09 which confirms that Service Quality is an important, influential factor of e-tailing. Very interesting that D7_2 had a mean of only 2.38, which means that respondents disagreed with the statement that traditional retails stores offer better service. Both D7_1 and D7_4 confirmed that product returns, guarantees, warranties are essential factors for respondents when it comes to online shopping.

### 3.9.8 Website Functionality

The mean scores of the questions regarding *Website Functionality* as an influential factor are summarised in Table 3.31 below:

**Table 3.31: Mean scores of questions regarding Website Functionality**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D8_1 | Internet shopping is easy to do | 3,15 | 0,506 |
| D8_2 | I would be more likely to shop on the Internet if the Web site was easy to use | 3,09 | 0,642 |
| D8_3 | I like to shop on the Internet where it is easy to compare many products and screen them to choose the one I like | 3,14 | 0,600 |
| D8_4 | I would be more likely to shop online if the pictures of the items were clearer | 3,10 | 0,640 |
| D8_5 | Online shopping procedure is worry-free and effortless | 2,84 | 0,625 |
| D8_6 | Finding the right product online is easy | 2,91 | 0,612 |
| D8_7 | The ability to navigate easily through the website is important | 3,39 | 0,573 |

The mean for *Website Functionality* was 3.09. Most of the questions related to Website Functionality related to the ease of use, and thus it can be concluded that ease of use when it comes to vendor websites, is of utmost importance.

### 3.9.9 Trust and Security

The mean scores of the questions regarding *Trust and Security* as an influential factor are summarised in Table 3.32 below.

**Table 3.32: Mean scores of questions regarding Trust and Security**

| Code | Question | Mean | Std Deviation |
|---|---|---|---|
| D9_1 | I trust the security of online payment methods such as credit card | 2,79 | 0,678 |
| D9_2 | I am not concerned about possible interception of financial information by an unidentified third party | 2,33 | 0,767 |
| D9_3 | I would be more likely to shop on the internet if credit card security was insured | 3,14 | 0,639 |
| D9_4 | I am willing to give my personal information when shopping online | 2,29 | 0,772 |
| D9_5 | I trust the e-tailor privacy policies specified on their web sites | 2,56 | 0,718 |
| D9_6 | I'm confident that my credit-card details won't be compromised and misused if I shop online | 2,45 | 0,745 |

The mean for Trust and Security was 2.59. It is evident from the respective mean values of the various questions that Trust and Security is an important factor for respondents to take into consideration when conducting online shopping. Respondents did not portray an adequate level of trust when comes to credit card details and personal information. D9_4 specifically indicates that respondents are not comfortable with providing their personal information when shopping online. It is rather clear from the means of the various questions that Trust and Security is still a major concern for online consumers of South Africa.

## 3.10 Summary

Chapter 3 highlights the research component of the study on the different factors that influence consumers to rather shop online as opposed to the traditional bricks and mortar outlets. The chapter started off by explaining the research strategy used to gather information using a structured questionnaire based on factors suggested by the literature. It further described the statistical analysis done on the results from the obtained questionnaires and also elaborated on the results. The chapter concludes by discussing the validity and reliability of the results and reports on the T-tests and effect sizes conducted to measure whether there are any significant differences between identified groupings.

# Chapter 4 – Conclusion and Recommendations

## 4.1 Introduction

The primary objective of this study was to evaluate the factors that influence the adoption of online shopping in the sports business industry of South Africa. The following secondary objectives were formulated to achieve the primary objective:

- Identify, using a literature review, the influences, dimensions, and drivers of online shopping.
- Assess the relative importance and relevance of each of the identified influences.
- Identify the factors that encourage or discourage South African e-consumers to use online shopping.
- Identify the critical success factors for e-tailing.
- Comprehensive demographic profile to answer the questions: who, what, where, when, how, and frequency.

Chapter 4 features the results of this study and explains the relevance thereof with regards to e-tailing opportunities in the South African sports business industry. The outcome will be founded on a three-section conclusion and recommendation basis including the following aspects:

- Conclusions and recommendations regarding the statistical procedures;
- Conclusions and recommendations based on the results for e-tailing behaviour; and
- Conclusions and recommendations with regards to future research.

The chapter concludes with a final overview of the research results and highlights a few limitations that need to be taken into account for any future research.

## 4.2 Conclusions and Recommendations

All conclusions made in this section will be followed by an equally important recommendation that needs to be taken into account for future reference.

### 4.2.1 Statistical procedure conclusions

The following conclusions can be made with regards to the statistical analysis

implemented in this study:

- The KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy can be regarded, as a suitable statistical tool to scientifically determine if the sample implemented is adequate to use in statistical analysis.
- The validity of the questionnaire was tested using factor analysis. Factor analysis was the appropriate statistical tool to use in this study and proposed attractive variances amongst all nine identified factors. Upon completion of the factor analysis, it also became apparent that certain factors consisted of sub-factors.
- The reliability of the data was tested using Cronbach's alpha, and it can be concluded that this was a suitable measure of the reliability of the factors as well as the entire data-set.
- T-tests were conducted to test whether there are significant differences between identified groupings.

### 4.2.2 Statistical procedure recommendations

The questionnaire used to measure the influential factors on consumer's intent to adopt e-tailing technology and the behavioural factors associated can be employed to measure e-tailing adoption and behaviour due to the reliable statistical results. The results and recommendations of each influence are discussed below.

#### *4.2.2.1 Website Features*

*Website Features* were measured with a reliability of α = 0.80. This means that *Website Features* as an influential factor is a reliable instrument in measuring online consumer behaviour, and there is a strong possibility that it will be repeated in any future studies that utilize this framework.

#### *4.2.2.2 Price*

*Price* was measured with a reliability of α = 0.66, which is very close to the suggested α = 0.7. Although a Cronbach's Alpha coefficient of 0.7 and above is suggested as an indication of reliability, (Field, 2014:708) suggests that in the early stages of research, values of 0.5 or above will also be sufficient. This means that *Price* as an influential factor is a reliable instrument in measuring online consumer behaviour, and there is a strong possibility that it will be repeated in any future studies that utilizes this framework.

#### 4.2.2.3 Convenience

*Convenience* was sub-divided into two groups, but the dominating group *(CF1 Convenience)* was measured with a reliability of α = 0.79, proposing that *Convenience* is an adequate instrument in measuring online consumer behaviour.

The second group *(CF2 Comfort of shopping from home)* was measured with an insufficient reliability of α = 0.42. The variables that contributed to this group needs to be reworked and further developed, or alternatively ignored from future studies.

#### 4.2.2.4 Product Risk

*Product Risk* was also sub-divided into two groups, but the predominant group (*PR1 Tangibility)* provided a reliability of α = 0.73, advising that *Product Risk* is an adequate instrument in measuring online consumer behaviour.

The second group (PR2 Product Certainty) provided an insufficient reliability of α = 0.32. This means that *Product Certainty* will in all likelihood not present itself again in future studies, should the study be based on this framework. The variables that contributed to this group should thus be reworked and further developed, or alternatively ignored from future studies.

#### 4.2.2.5 Geographical Distance

*Geographical Distance* returned a reliability of α = 0.80. This means that *Geographical Distance* as an influential factor is an adequate instrument in measuring online consumer behaviour, and there is a strong possibility that it would reoccur in a similar fashion in future studies by applying this framework.

#### 4.2.2.6 Product Variety

*Product Variety* was measured a reliability of α = 0.75 which presents another very reliable instrument for measuring online consumer behaviour. It also portrays that there is a strong chance that *Product Variety* would present itself again with future studies in different settings, by using the same framework. *Product Variety* could especially be important in an online environment where shelf space and floor space is irrelevant.

#### 4.2.2.7 Service Quality

*Service Quality* also presented dual values, and two sub groups transpired with identical values in the form of (SQ 1), which presented a reliability coefficient of α = 0.54 and (SQ 2) with a reliability coefficient of α = 0.54.

Although (Field, 2014:708) indicated that Cronbach's Alpha coefficient values of 0.5 and above are sufficient in the early stages of research, further development and rephrasing of the questions related to these sub groups could improve the chances of Service Quality presenting itself again as an influential factor in future studies that choose to make use of this framework.

#### *4.2.2.8 Website Functionality*

*Website Functionality* also consisted of two sub groups, *Website User-friendliness (WF1)* with a reliability coefficient of α = 0.83 and *Effortless Website (WF2)* which presented a reliability coefficient of α = 0.72. Both of these indicated reliable Cronbach's Alpha values, which suggest that they will in all likelihood present themselves again in future studies by applying the same framework. It is however suggested that the variables that contributed to these two groups be reworked to form one influence, or alternatively two separate influences altogether.

#### *4.2.2.9 Trust and Security*

*Trust and Security* also consisted of two sub-groups, *Vendor Trust (TS1)* and Insured *Security (TS2).* It is noteworthy to point out that *Insured Security (TS2)* as a sub group was unable to attain a reliability coefficient due to only one question that loaded onto this group, and could therefore be omitted from future studies. *Vendor Trust (TS1)* however provided a very desirable reliability coefficient of α = 0.86. This suggests that *Vendor Trust (TS1)* as an influential factor is a very reliable instrument in measuring online consumer behaviour, and there is a very strong possibility that it will present itself in future studies that utilize the same framework.

### 4.2.3 Conclusions based on the results of the identified factors

The following conclusions could be made regarding the identified influential factors of online shopping:

- *Website Features, Website Functionality, and Service Quality* were the top three factors respondents considered when shopping online. Respondents indicated that detailed product descriptions, easy navigation, and product warranties and guarantees are essential factors to ensure they follow through on online purchases.
- Respondents also viewed *Price* as an important factor to shop online and indicated that online vendors offer better prices.

- Convenience plays an important role and respondents indicated that online shopping is convenient. They also indicated that they shop online due to the reduced effort in traveling, time, and effort.
- It is very important to note that respondents are not comfortable with providing their credit card and personal details when shopping online. They specifically pointed out that they are not willing to provide personal details when shopping online as well as that they are concerned about possible interception of financial information by unidentified third parties.
- Respondents indicated that they like to browse various categories and examine several search results. They also believe that online vendors offer more variety of products.
- The outcomes additionally showed a moderately low positioning for Geographical Distance proposing that it was not an integral factor for the respondents to shop online.

### 4.2.4 Recommendations based on the results of the identified factors

It is important to note that five out of the nine original factors namely Convenience, Product Risk, Service Quality, Website Functionality, and Trust and Security provided sub-groups after factor analysis. The questions related to these factors need to be examined to determine whether they should be included in future studies.

### 4.2.5 Future research conclusions

The e-tailing industry of South Africa is growing fast. Thus more in-depth research is necessary to gain a comprehensive understanding of the e-tailing consumer in South Africa. The factors that were identified and examined in this study contributed towards gaining an enhanced understanding of the factors influencing e-tailing adoption in the South African sports business industry.

### 4.2.6 Future research recommendations

It is recommended that future research related to this topic, should take into account the sub-factors that formed upon factor analysis. The questions related to these sub-factors need to be inspected to prevent the measurement of sub-categories of the factors identified. One could perhaps investigate whether these questions could be left out.

Future researchers could find it beneficial to obtain a more representative sample of the South African e-tailing industry. The limitations discussed in 4.3, should also be taken

into account in future research endeavours.

## 4.3 Limitations of this study

Although the study included various age groups, marital status, education level, and income levels, the findings can't be generalised to include the entire sports business industry of South Africa. One of the main limitations regarding demographic profile is the community type that people reside in. The overwhelming majority of respondents (90.2%) resides in Urban and Suburban areas which are less than 50km from the nearest CBD. This could suggest that respondents did not see *Geographical Distance* as a factor that influences their adoption of online shopping because they are so close to the nearest CBD, which might not be representative of someone residing in a rural area where the nearest CBD is more than 100km away. Gender was also restricted to male respondents (90.9%), which could suggest that the responses may not be representative of the entire South African sports industry population. Due to time constraints, the sample size was restricted to 163 respondents of which 157 completed the entire questionnaire. The questionnaire was rather in-depth and lengthy. Thus respondents were averse towards completing the online questionnaire as they thought it was too time constraining.

## 4.4 Summary

The study measured the identified factors influencing the adoption of e-tailing in the sports business industry of South Africa measured on the grounds of various adapted models. **Chapter 1** introduced the Internet as a communication platform and discusses the growth thereof over the last few years. Going hand in hand with growing Internet usage is the growth in e-tailing which is also discussed briefly. By citing a few verified sources, an indication is given that there is an opportunity for more studies within this field, which leads to the problem statement as well as a brief description on what the research and research subjects will entail. **Chapter 2** presents a literature review of the theories, trends and developments in the e-tailing environment. An in-depth discussion follows on consumer behaviour and the methodology behind their purchase-decisions in an online context. The factors that influence online shoppers in similar previous studies are also explored to obtain a better understanding of the influential factors this study focused on. **Chapter 3** explains the strategy used to obtain the data to study the objectives of this dissertation. The chapter also describes the various tests done to ensure the data are suitable for factor analysis and statistical interpretation. The results

are displayed and discussed afterwards, and the reliability thereof is also discussed. The chapter then concludes by discussing the importance of the research variables. The data were statistically analysed by using SPSS Statistics V23 (SPSS, 2016), and a professional statistician from the North-West University's Statistical Consultation Services assisted with the planning, design and eventual analysis of the data. **Chapter 4** concludes this study, and various recommendations are made for possible future research areas. Limitations are also discussed, and the dissertation is concluded with a summary thereof.

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# Annexure A

**30 March 2017**

**Dear participant**

First and foremost I would like to thank you for taking the time to participate in the survey. As a sign of appreciation one lucky winner will stand a chance to win a pair of Oakley Prizm Sunglasses.

The primary aim of this survey is to evaluate the factors that successfully influence the adoption of online shopping in the sports business industry of South Africa.

This questionnaire is for academic research purposes only and as such all questionnaires will be kept confidential and your anonymity is guaranteed. The questionnaire should just take 10-15 minutes to complete. Participation in this study is voluntary. Please note that by returning this questionnaire, you are giving your consent to participate. Results of the study can be requested from the researcher.

If you have any queries please contact:

**Researcher:**
Garth Olivier – gartholivier.private@gmail.com

**Thank you for your time!**

**Section A**

1. **Age**

| | Baby boomer | | Gen X | | Millenial | | i-generation |
|---|---|---|---|---|---|---|---|
| a. | 1946 - 1964 | b. | 1965 - 1979 | c. | 1980 - 2000 | d. | 2001 - 2016 |

2. **Gender**

| | | | |
|---|---|---|---|
| a. | Male | b. | Female |

3. **Marital Status**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| a. | Single | b. | Married | c. | Divorced | d. | Widowed |

4. **Kindly indicate your ethnicity.**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a. | White | b. | African | c. | Coloured | d. | Indian | e. | Other |

5. **Which of the following community types do you reside in?**

| | |
|---|---|
| a. | Urban (In the city) |
| b. | Suburban (Less than 50km from the city) |
| c. | Sub-rural (50 - 100km away from city) |
| d. | Rural (More than 100km from city) |

6. **What is the highest level of education you completed?**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a. | Not-matric | b. | Grade 12 | c. | Degree | d. | Post-graduate | e. | Doctorate |

7. **What is your average monthly NETT (after deductions) income?**

| | |
|---|---|
| a. | R0 - R9 999.99 |
| b. | R10 000.00 - R19 999.99 |
| c. | R20 000.00 - R29 999.99 |
| d. | R30 000.00 - R39 999.99 |
| e. | R40 000.00 - R49 999.99 |
| f. | R50 000.00+ |

**Section B (Internet Usage and Online Shopping Experience)**

1. **Which of the following devices do you prefer to access the Internet?**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a. | Smart phone | b. | Tablet | c. | Laptop | d. | PC | e. | Other |

2. **How many hours per week do you use the Internet?**

| | |
|---|---|
| a. | I don't use the Internet |
| b. | Less than 3 hours |
| c. | 3 - 10 hours |
| d. | 11 - 20 hours |
| e. | 21+ hours |

3. **What is the main reason you access the Internet?**

| | |
|---|---|
| a. | Social Media |
| b. | Internet Banking |
| c. | Research |
| d. | News |
| e. | Sport Information (News, results, fixtures) |
| f. | Entertainment |
| g. | Online Shopping |

4. **Do you respond to ads to buy online like (specials, limited time offers, end of range sales)?**

| | | | |
|---|---|---|---|
| a. | Yes | b. | No |

5. **Which of the following devices do you prefer to use for online shopping?**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a. | Smart phone | b. | Tablet | c. | Laptop | d. | PC | e. | None (I don’t shop online) |

6. **How often do you engage in online shopping?**

| | |
|---|---|
| a. | Every day |
| b. | Once a week |
| c. | Twice a week |
| d. | > twice a week |
| e. | Twice a month |
| f. | Once a month |
| g. | Every 3 months |
| h. | Every 6 months |
| i. | Once a year |
| j. | Never |

7. **What is your experience with Online Shopping?**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| a. | Very bad | b. | Bad | c. | Good | d. | Very good |

**8. What is the average size of your online purchase?**

| | |
|---|---|
| a. | R0.00 - R99.00 |
| b. | R100.00 - R199.00 |
| c. | R200.00 - R499.00 |
| d. | R500.00 - R999.00 |
| e. | R1 000.00 - R1 999.00 |
| f. | R2 000.00 - R2 999.00 |
| g. | R3 000.00 - R3 999.00 |
| h. | R4 000.00 - R4 999.00 |
| i. | R5 000.00 - R9 999.00 |
| j. | R10 000+ |

**9. Do you prefer to buy abroad or domestically?**

| | | | |
|---|---|---|---|
| a. | Abroad | b. | Domestically |

**10. Which method of payment do you prefer for online shopping?**

| | |
|---|---|
| a. | Credit Card |
| b. | EFT |
| c. | Discovery Miles |
| d. | e-bucks |
| e. | Other loyalty programmes |
| f. | I don't trust any online payment methods |

**11. Which items do you prefer to shop online?**

| | |
|---|---|
| a. | Appliances (TV, Dish Washer, Microwave, Fridges,etc) |
| b. | Books |
| c. | Clothing |
| d. | Gaming |
| e. | Groceries |
| f. | Jewelry |
| g. | Music |
| h. | Series & Movies |
| i. | Shoes |
| j. | Sport Equipment |
| k. | Tech (MP3's, Tablets, Smart Phones, PC's, etc) |
| l. | Other |

**12. Which of the following do you prefer to buy?**

| | | | | | |
|---|---|---|---|---|---|
| a. | Branded Products | b. | Generic Products | c. | Cheapest Product |

**13. Have you ever purchased sport equipment online?**

| | | | |
|---|---|---|---|
| a. | Yes | b. | No |

**14. Do you also buy sport equipment or apparel instinctively?**

| | | | |
|---|---|---|---|
| a. | Yes | b. | No |

**Section C: (Sport Participation)**

**1. Do you participate in any of the following?**

| | | | |
|---|---|---|---|
| a. | Team Sport | b. | Individual Sport |

**2. Which of the following is the main reason for your sport participation?**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a. | Professional | b. | Semi-professional | c. | Competition | d. | Recreation | e. | Social |

**3. How many sports do you participate in?**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| a. | One | b. | Two | c. | Three | d. | More than Three |

**4. Are you a member of a sport club?**

| | | | |
|---|---|---|---|
| a. | Yes | b. | No |

**5. How many hours per week do you spend on your sport?**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a. | 1 hour | b. | 2 hours | c. | 3 hours | d. | 5 hours | e. | More than 5 hours |

**6. How many hours per week do you watch sport?**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a. | 1 hour | b. | 2 hours | c. | 3 hours | d. | 5 hours | e. | More than 5 hours |

**Section D**

**NB: The following questions specifically refer to sport equipment.**

| WF | Website Features | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| **The following website features are essential for me to follow through on my purchase:** | | | | | |
| D1_1 | Superior image features like 360 degree images | 1 | 2 | 3 | 4 |
| D1_2 | Detailed product descriptions | 1 | 2 | 3 | 4 |
| D1_3 | Customer reviews of the product | 1 | 2 | 3 | 4 |
| D1_4 | Real time inventory display | 1 | 2 | 3 | 4 |
| D1_5 | Search functionality | 1 | 2 | 3 | 4 |
| D1_6 | Express Checkout (Don't want to provide unnecessary details) | 1 | 2 | 3 | 4 |

| P | Price | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| D2_1 | Online shops offer better prices | 1 | 2 | 3 | 4 |
| D2_2 | I find myself checking prices even for small items | | | | |
| D2_3 | Online shopping makes price comparison easy | 1 | 2 | 3 | 4 |
| D2_4 | When considering where to buy sport equipment, price is my first consideration | 1 | 2 | 3 | 4 |

| C | Convenience | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| D3_1 | Internet shopping is convenient | 1 | 2 | 3 | 4 |
| D3_2 | I shop online where I can reduce my efforts in traveling, walking, parking, waiting, and carrying as much as possible | 1 | 2 | 3 | 4 |
| D3_3 | I shop online as I can shop whenever I want | 1 | 2 | 3 | 4 |
| D3_4 | I shop online as I can get detailed product information online | 1 | 2 | 3 | 4 |
| D3_5 | I shop online as I do not have to leave home for shopping | 1 | 2 | 3 | 4 |
| D3_6 | I shop online because the nearest sport equipment shops are too far | 1 | 2 | 3 | 4 |

| PR | Product Risk | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| D4_1 | I want to see and touch products before I buy them | 1 | 2 | 3 | 4 |
| D4_2 | I use online shopping for buying products of brands which are otherwise not easily available in a nearby shop or are unique (new) | 1 | 2 | 3 | 4 |
| D4_3 | I am confident that I will get what I ordered through online shopping | 1 | 2 | 3 | 4 |
| D4_4 | I find it difficult to judge the quality of the product from online platforms | 1 | 2 | 3 | 4 |
| D4_5 | I am unable to examine the product when I shop online | 1 | 2 | 3 | 4 |

| GD | Geographical Distance | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| D5_1 | I prefer to shop online as the nearest physical store is too far away | 1 | 2 | 3 | 4 |
| D5_2 | It's not worth traveling the distance when I can rather shop online | 1 | 2 | 3 | 4 |
| D5_3 | With traveling costs constantly increasing, I prefer shopping online | 1 | 2 | 3 | 4 |

| PV | Product Variety | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| D6_1 | Internet shopping provides more variety of products | 1 | 2 | 3 | 4 |
| D6_2 | Web vendors offer more useful information about the different choices | 1 | 2 | 3 | 4 |
| D6_3 | I shop online as I get broader selection of products | 1 | 2 | 3 | 4 |
| D6_4 | I like to browse the various categories on a site when doing my shopping | 1 | 2 | 3 | 4 |
| D6_5 | When searching for something to buy, I like to examine several search results even if the first one is exactly what I want | | | | |
| D6_6 | When shopping online, I find myself buying impulsively, and buy extra stuff that I did not intend buying initially | 1 | 2 | 3 | 4 |

| SQ | Service Quality | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| D7_1 | I would be more likely to shop online if product returns were easier | 1 | 2 | 3 | 4 |
| D7_2 | Traditional retail stores offer me better services than online stores | 1 | 2 | 3 | 4 |
| D7_3 | I get better service when shopping on the Internet than traditional retail stores | 1 | 2 | 3 | 4 |
| D7_4 | I only buy products online that are supported with product guarantees and warranties | 1 | 2 | 3 | 4 |
| D7_5 | Getting good after sales service is quick and easy for online purchases | 1 | 2 | 3 | 4 |

| WU | Website Functionality | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| D8_1 | Internet shopping is easy to do | 1 | 2 | 3 | 4 |
| D8_2 | I would be more likely to shop on the Internet if the Web site was easy to use | 1 | 2 | 3 | 4 |
| D8_3 | I like to shop on the Internet where it is easy to compare many products and screen them in order to choose the one I like | 1 | 2 | 3 | 4 |
| D8_4 | I would be more likely to shop online if the pictures of the items were clearer | 1 | 2 | 3 | 4 |
| D8_5 | Online shopping procedure is worry-free and effortless | 1 | 2 | 3 | 4 |
| D8_6 | Finding the right product online is easy | 1 | 2 | 3 | 4 |
| D8_7 | The ability to navigate easily through the website is important | 1 | 2 | 3 | 4 |

| TS | Trust and Security | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| D9_1 | I trust the security of online payment methods such as credit card | 1 | 2 | 3 | 4 |
| D9_2 | I am not concerned about possible interception of financial information by an unidentified third party | 1 | 2 | 3 | 4 |
| D9_3 | I would be more likely to shop on the internet if credit card security was insured | 1 | 2 | 3 | 4 |
| D9_4 | I am willing to give my personal information when shopping online | 1 | 2 | 3 | 4 |
| D9_5 | I trust the e-tailor privacy policies specified on their web sites | 1 | 2 | 3 | 4 |
| D9_6 | I'm confident that my credit-card details won't be compromised and misused if I shop online | 1 | 2 | 3 | 4 |

**Section E**

1. **Do you visit different online sport equipment stores before the actual purchase?**

| | | | |
|---|---|---|---|
| a. | Yes | b. | No |

2. **Do you go to a retail store first before making your final purchase online?**

| | | | |
|---|---|---|---|
| a. | Yes | b. | No |

3. **If yes in question 2, how many stores on average do you visit before making your final purchase online?**

| | |
|---|---|
| a. | 1 |
| b. | 2 |
| c. | 3 |
| d. | >3 |

4. **What are the crucial factors that affect your decision making in the final selection of the product?**

_____

5. **Which is currently your favourite online shopping portal?**