

**PERCEIVED RISK BARRIERS TO ONLINE SHOPPING:  
EXPERIENCES OF TECHNOLOGICALLY ENABLED  
GENERATION Y CONSUMERS**

**BY  
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**March 2018**

## **DECLARATION**

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## ABSTRACT

Online shopping is progressively becoming popular worldwide however, in South Africa it continues to experience slower growth rates. This is contrary to the expected uptake of online shopping by a generation who grew up with Internet and have access to Internet technologies on a daily basis. The current study aims to contribute to the understanding of firstly, online consumer behaviour, secondly, the slow growth of online shopping in South Africa and thirdly, the risk perception of a significant market segment in South Africa. The focus of the study was therefore, to investigate the online purchasing behaviour of technologically enabled South African Generation Y consumers, with the primary objective of identifying perceived risk barriers towards online shopping. As a secondary objective, the study also investigated the technology usage profile of Generation Y respondents to identify how, when and why younger consumers in South Africa access the Internet, as well as their online shopping behaviour. Because previous research highlighted the importance of product type when shopping online, perceived risk was measured for the context of high involvement products (clothing), as well as low involvement products (books). Consideration was also given to experienced and inexperienced online consumers and therefore, online purchase and repurchase intent.

The study draws from theories such as the Technology Acceptance Model and Theory of Perceived Risk and used Structural equation modelling (SEM) to test relationships between the dimensions of perceived risk and online purchase and repurchase intent. It was found that perceived psychological and perceived social risk have a significant effect on the repurchase intent of experienced online consumers, for the clothing and books. In addition, perceived financial and perceived social risk were found to significantly affect online purchase intent of inexperienced online consumers, for the context of clothing and books.

From the findings, managerial implications were formulated and suggestions were made for online retailers and marketers to enhance their business strategies. As a result of limitations that exist in the current study, suggestions for future research are also proposed.

**Key words:** Online shopping, Generation Y, South Africa, perceived risk, purchase intent.

## UITTREKSEL

Die populariteit van aanlyn-inkopies neem wêreldwyd progressief toe, maar in Suid-Afrika is die groeikoers aansienlik stadiger. Dit is teenstrydig met die verwagte toename in aanlyn-inkopies deur Generasie Y verbruikers wat van kleins af Internetgebruikers is, en daagliks maklike toegang tot die Internet geniet. Die huidige studie beoog om 'n bydrae te maak tot ons verstaan van die volgende aspekte van aanlyn-inkopies; aanlyn-verbruikers se gedrag, die stadige groeikoers van aanlyn-inkopies in Suid-Afrika, asook die risikopersepsie van 'n merkwaardige markdeel in Suid-Afrika. Die fokus van die studie is dus om ondersoek in te stel na die aanlyn-aankoopgedrag van tegnologie-aangeskrewe Suid-Afrikaanse Generasie Y-verbruikers, met die primêre doel om waargenome risiko-versperrings tot aanlyn-inkopies te identifiseer. As 'n sekondêre doelwit het die studie ook ondersoek ingestel na die tegnologie-verbruikprofiel van Generasie Y verbruikers om te identifiseer hoe, wanneer en hoekom jonger verbruikers in Suid-Afrika die Internet gebruik, asook hulle gedrag met betrekking tot aanlyn-inkopies. Vorige navorsing het die belangrikheid van produk-tipe met betrekking tot aanlyn-aankoopgedrag uitgelig, en daarom tref hierdie studie 'n onderskeid tussen waargenome risiko-versperrings vir die konteks van hoë betrokkenheidsprodukte, soos klere, en waargenome risiko-versperrings in die konteks van lae betrokkeheidsprodukte, soos boeke. Daar word ook ag geslaan op die onderskeid tussen ervare en onervare aanlyn-verbruikers.

Die tegniek van 'structural equation modelling (SEM)' is gebruik om die verhouding te toets tussen die dimensies van waargenome risiko en die bedoeling om aan te koop, sowel as die bedoeling om aankope te herhaal. Die resultate dui daarop dat waargenome sielkundige risiko, sowel as waargenome sosiale risiko 'n merkwaardige impak het op ervare aanlyn-verbruikers se bedoeling om aankope te herhaal, vir beide klere en boeke. Boonop dui die resultate daarop dat waargenome finansiële risiko en waargenome sosiale risiko ook 'n merkwaardige impak het op onervare verbruikers se bedoeling om aan te koop, vir beide klere en boeke.

Uit die studie se bevindinge word bestuursimplikasies geformuleer en voorstelle gemaak vir handelaars en bemarkers om hul aanlyn strategieë te verbeter. Weens die beperkings van die huidige studie, word voorstelle ook gemaak vir toekomstige navorsing.

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## CHAPTER 1

### INTRODUCTION TO THE STUDY

*“Nearly everyone I know is addicted in some measure to the Internet”*

-Schwartz, 2015.

#### 1.1 INTRODUCTION

This common complaint in the New York Times (2015) is supported by several reports indicating that the number of Internet users across the world has grown dramatically since 2000. In 2015, over 3 billion of the estimated world population of 7 billion people (46.4%) were classified as Internet users (Internet World Stats, 2015). Consumers today are more dependent on the Internet for their daily activities than ever before and many consumers find it difficult to operate without access to the Internet.

The widespread adoption of Internet technologies has had a radical impact on people's lives and specifically on local and international business operations (Al-Debei, Akroush & Ashouri, 2015). Consumers use the Internet in almost all aspects of their lives, including to search for information, entertainment, social connections and business dealings. Online shopping has evolved into an important part of the world retail economy. This has been confirmed by the market research firm, eMarketer who reports that the Internet accounted for 7.3% of global retail sales in 2015 and predicts that this figure will grow to 12.4% by 2019 (Lindner, 2015). The growing popularity of online shopping amongst consumers, means that retailers need to embrace this development in business operations.

Online shopping is often welcomed by consumers and retailers alike due to its convenience and value (Richard & Habibi, 2016). Online shopping is gaining popularity and most consumers today are able to shop from a variety of local and international online shopping websites. The core contention that gives meaning to the current study, is that online shopping is growing and developing slowly in South Africa, compared to other countries.

## 1.2 BACKGROUND

Arthur Goldstruck, CEO of research company World Wide Worx, describes the online shopping market in South Africa as ‘underdeveloped, behind the curve and lagging behind Western countries’ (SA online retail to pass 1% of total retail in 2016, 2016). South African e-commerce (electronic commerce) websites have not yet incorporated the innovation brought on by most retailers in developed markets (SA online retail to pass 1% of total retail in 2016, 2016) and online shopping in South Africa is not yet as advanced as in other economies.

The online shopping market in South Africa is a promising, yet volatile business market. CEO of the former online store Prophecy.co.za, Paul Johnston, describes the online environment in South Africa as a ‘tough transition’ instead of a crisis (Vermeulen, 2015). Similarly, Andy Higgins, managing director of uAfrica, believes that online shopping in South Africa will come of age, once large corporate retailers, such as Edcon and Massmart, adopt online retail (Vermeulen, 2015). Online shopping in South Africa has the potential to be successful once consumers fully adopt this new form of retail.

In 2016, online retailing accounted for only 1% of total retail sales however, forecasts show that that this percentage will double between 2016 and 2020 (SA online retail to pass 1% of total retail in 2016, 2016). Although small, the increase is significant and can be attributed to the increasing number of experienced Internet users being ready to transact online. The gradual increase of the popularity of online shopping around the world and in South Africa, has resulted in consumers’ online behaviour receiving attention from researchers and various factors relating to online shopping behaviour being critically analysed (Khare, Khare & Singh, 2012).

The current study will contribute to the field of online consumer behaviour knowledge and address the slow growth of online shopping in South Africa by investigating the online behaviour of Generation Y consumers. The focus will be on the perceived risks that these consumers experience as barriers to online shopping. The study will further address the reasons why Generation Y consumers, who are technologically enabled and have access to the Internet, hesitate to shop online and the impact of various perceived risk barriers on Generation Y consumers.

### **1.3 RESEARCH DOMAIN**

The following section will examine previous research regarding the variables investigated in the study. The literature will discuss the phenomenon of online shopping, online shopping within the global and South African contexts, the consumer behaviour of South African Generation Y consumers and perceived risk, with regards to online shopping.

#### **1.3.1 The concept of online shopping**

Online shopping is a phenomenon that has changed the way people live and operate on a daily basis and can be defined as ‘the purchasing of products or services through the Internet’ (Javadi, Dolatabadi, Nourbakhsh, Poursaeedi & Asadollahi, 2012:81), which makes its adoption dependent on consumers’ adoption of information technologies. It has not only become a huge part of the lives of consumers, but has also changed the way in which businesses operate.

Within the traditional shopping context, consumers are passive recipients of information, however, online shopping has allowed a new paradigm of consumer behaviour to emerge. Through the utilisation of technology, consumers are afforded the additional opportunity to be active co-producers of information (Kaur & Quareshi, 2015). Other advantages of online shopping include convenience, time savings, 24-hour access and comprehensive information (Javadi *et al.*, 2012).

However, compared to brick-and-mortar stores, online shopping also has various disadvantages that hinders adoption among consumers. Such disadvantages include not being able to evaluate a product before purchase, uncertainty about online retailers and delivery delays. It has been reported that due to the various disadvantages of online shopping, it will not soon be considered a threat to brick-and-mortar stores (Radebe, 2014). Especially in South Africa, traditional brick-and-mortar stores continue to have a stronghold over online retail spaces (Study reveals that e-commerce is on the rise in South Africa, 2015).

Despite the growth of online shopping globally, consumers in South Africa are not yet adopting Internet technologies at the same rate as their American and European

counterparts (Evans, 2015). The slow growth of online shopping in South Africa provides a foundation for the research of the current study.

### **1.3.2 Online shopping in South Africa**

Years ago, retailers were sceptical about the success of online shopping in South Africa, but today, online shopping is something local retailers cannot ignore. Online shopping in South Africa originated in 1996 with the advancement of the Internet and in 2016, it is predicted that online shopping accounts for only 1% of all retail sales (South African online shopping only 1% of retail sales, 2015).

Although the slow growth of online shopping in South Africa is shared by the rest of the African continent, the share of global e-commerce in the African region is predicted to grow from 2.2% to 2.5% between 2013 and 2018. This rate is compared to that of the Asian region, which is expected to grow from 28% to 37% in the same time (Evans, 2015). Reasons for the low growth rates of online shopping in South Africa in particular, include that consumers often have to pay high delivery costs, consumers believe that they need to own a credit card to shop online and the logistics of returning incorrect items (Febel, 2015).

However, despite the reported slow growth of online shopping in South Africa, several research firms have predicted that the growth figures will turn more positive in future. A report by McKinsey & Company showed that e-commerce could account for 10% of retail sales in Africa's largest economies by 2025 (Jooste, 2015). The Digital Evolution Index by MasterCard also identified South Africa as the most developed digital economy in Africa and one of the fastest growing economies in the world (Jooste, 2015). The African continent holds potential for furthering e-commerce as a way of conducting business and furthermore, South Africa is at the forefront of developing a sophisticated e-commerce network.

The use of the Internet and online services in South Africa is expanding as consumers are becoming more knowledgeable in this regard (Persad & Padayachee, 2015). Arthur Goldstruck further explains that the outlook for online shopping in South Africa is positive and that local online sales surpassed R9 billion in 2016, a milestone for

South Africa's online platform (South African online shopping only 1% of retail sales, 2015).

Although online shopping in South Africa is growing, it is evident that it still lags behind the online markets of other countries. The primary focus of the current study is to investigate the slow growth of online shopping in South Africa by targeting an influential consumer group, Generation Y consumers. South African Generation Y consumers are able to shop online, as many have access to the Internet and are familiar with using the Internet. The influence and size of the Generation Y consumer market is explained further in the following chapters, as justification for targeting this group in the current study.

### **1.3.3 Generation Y consumers**

Previous researchers often differ on the exact ages of Generation Y consumers, but according to Bevan-Dye, Garnett and de Klerk (2012), Generation Y consumers were born between 1980 and 2000. The same age brackets are used to define Generation Y consumers in the current study. According to Statistics South Africa (2013), Generation Y consumers represent 28% of the South African population, with spending power that is gradually exceeding that of their parents (Makhitha, 2014). This generational cohort is thus a very large market segment and research by World Wide Worx indicates that 16.3% of global online shoppers are between the ages of 25-34 years and make up the biggest percentage of online shoppers (South African online shopping only 1% of retail sales, 2015).

In South Africa, Generation Y consumers are the first to grow up during the post-Apartheid era and during the age of the Internet, cell phones and convergent technologies (Makhitha, 2014). Consumers in this generation are accustomed to a multi-media rich world with constant access to news and information. Generation Y consumers are regarded as an attractive market segment for online retailers, since they are accustomed to technology and having constant access to the Internet (Makhitha, 2014). For retailers and marketers attempting to target Generation Y consumers in the online development of their brand, it is vital to understand the behaviour and lifestyle of this consumer group.

Generation Y consumers, fuelled by hedonic motivations, generally enjoy shopping and have a tendency to spend money quickly and freely (Pentecost & Andrews, 2010). The spending power and shopping behaviour of Generation Y consumers identify them as a significant and important segment for online retailers to target and it is imperative for marketers to understand their online shopping behaviour and perceived risks that could act as potential barriers to online shopping.

Generation Y respondents in the study were divided into two groups; Sample 1: consumers who had purchased online before (i.e. experienced online consumers) and Sample 2: consumers who were new to online shopping (i.e. new online consumers). The purpose of the division was to distinguish whether respondents perceive varying levels of risk depending on previous experience with online shopping and therefore, the survey measured online purchase and repurchase intent of consumers.

#### **1.3.4 Perceived risk in the online shopping context**

Since Bauer first introduced the concept of perceived risk in 1960, the subject has continued to receive attention from marketers and academics (Huang, Schrank & Dubinsky, 2004). Cunningham's seminal work (1967) defines perceived risk as 'the amount that would be lost if the consequences of an act were not favourable, and the individual's subjective feelings of uncertainty that the consequences will be unfavourable' (Mitchell, 1999). Mitchell (1999) supports the two-factor view of Cunningham (1967) and describes perceived risk as having two components, namely the uncertainty of a loss and the subjective feeling of unfavourable consequences. Uncertainty is related to the buying goals of a consumer and consequences are linked to the money, time and effort invested in the buying goals of a consumer (Huang *et al.*, 2004).

Consumers consciously and unconsciously perceive risk when judging products online (Meng-Hsiang, Li-Wen & Cheng-Se, 2014). Kaur and Quareshi (2015) further report uncertainties about online shopping to include lack of security, absence of physical examination of products, poor quality product information and unattractive website layouts. Other factors such as, usability, risk, tradition and image have also been found to prevent consumers from buying high cost products online (Lian & Yen, 2014). As such, perceived risk hinders the use of online shopping as consumers are reluctant to

complete online transactions due to the fear of online risks and may therefore be motivated to switch to brick-and-mortar stores (Persad & Padayachee, 2015).

It is crucial for marketers to understand perceived risk as it facilitates seeing their brand through the eyes of consumers. Perceived risk is also valuable in explaining consumers' behaviour, as consumers are often more motivated to avoid losses than to maximise gains (Mitchell, 1999). Online shopping is particularly vulnerable to the core elements of perceived risk namely uncertainty and unfavourable consequences.

In the online shopping environment, consumers experience features of uncertainty, insecurity and a lack of control (Kaur & Quareshi, 2015) which contribute to risk perception of online shopping. Seminal classification of perceived risk by Mitchell (1999) identifies six dimensions of perceived risk, namely financial risk, performance risk, time risk, psychological risk, social risk and physical risk. As Mitchell's theory is often regarded as the original theory of perceived risk, the same classification framework is applied in the current study to investigate the risks that Generation Y consumers perceive with online shopping. Five dimensions of perceived risk that are relevant to the current study will be alluded to in the literature. Perceived physical risk has been excluded from the current study as online shopping poses minimal physical risk to consumers.

#### 1.3.4.1 Financial risk

Financial risk is defined as the likelihood of a financial loss due to hidden costs or a lack of guarantee in the case of errors (Pires, Stanton & Eckford, 2004). Auditing firm PwC (2014) conducted a survey amongst 15 000 consumers from 15 different territories, including South Africa, and found that 38% of South Africans do not trust online payments and therefore, refrain from purchasing online (Jooste, 2015). Furthermore, a study conducted in South Africa, by Ipsos, revealed that 67% of offline consumers indicated payment security as their main reason for not shopping online.

Privacy and security are major concerns for potential online consumers and are linked to financial risk that inhibit the adoption of online shopping. The most important financial concern for potential online consumers is the threat to their personal privacy and financial information (Huang *et al.*, 2004). Consumers are uncertain about the

extent to which marketers use their personal information and fear the abuse of financial information and are therefore hesitant to purchase online (Huang *et al.*, 2004). For example, many online consumers fear credit card fraud as consumers often struggle to distinguish between reputable and corrupt websites (Jooste, 2015). However, Mustapha Zaouini, CEO of payments partner PayU, reported that the industry has put a lot of effort into ensuring that consumers understand which recognisable logos are safe to use and use only credible merchants to decrease their perceived financial risk barrier (Jooste, 2015).

#### 1.3.4.2 Psychological risk

Mitchell and Greatorex (1993) define perceived psychological risk as the potential loss of self-esteem due to a product or service being inconsistent with the self-image of the consumer. Consumers who are risk-averse and more comfortable with traditional shopping methods, will perceive online shopping to be complex and struggle to adopt this new form of retail. Many consumers are not willing to interact with online retailers, which decreases the consumer's intention to purchase online (Lian & Yen, 2014). Such consumers are more comfortable with traditional brick-and-mortar stores and have not made a psychological or 'mental shift' to online shopping.

Consumers have previously cited face-to-face contact, interaction with staff and sensory evaluations of a product as reasons for being more willing to use traditional shopping methods versus online shopping (Samuel, Balaji & Wei, 2015). Not all consumers are conversant with technology and the Internet and therefore, online shopping is often perceived to be complex and difficult to understand and has further been described as impersonal, frustrating and overwhelming by consumers. Perceived psychological risk is increased by the intangible nature of online shopping as consumers purchase a product without having seen or touched it. The lack of sensory product inspection, enhances the uncertainty and perceived psychological risk that consumers perceive when shopping online (Huang *et al.*, 2004). Because of this, many consumers will search for a product online, but purchase it in-store after having touched and seen the product (What is slowing down the growth of e-commerce in South Africa, 2015).

In contrast to traditional shopping orientations of some consumers, other consumers enjoy the self-service function of online shopping. Such consumers are confident, need less support from sales staff and will be more open to shopping online (Lian & Yen, 2014). Younger Generation Y consumers, who are more comfortable with technology are expected to enjoy online shopping, in comparison to older consumers who are generally expected to have a higher barrier towards online shopping. Consumers who enjoy online shopping are also predicted to perceive less performance risk.

#### 1.3.4.3 Performance risk

Performance risk is defined by Mitchell and Grottel (1993) as the probability of a product failing to meet the expected performance requirements and includes the performance of a website for the current study. In the study by Ipsos mentioned previously, 58% of consumers reported performance risks, such as faulty products and complex websites, as their main reasons for not shopping online (South African online shopping only 1% of retail sales, 2015). When shopping online, a consumer takes the risk of mismatching a product with its description and not receiving the intended product, (Kaur & Quareshi, 2015) or having to use slow and complex websites to complete purchases.

The fear of using a website or not ordering and receiving the correct product is especially common amongst consumers who are not comfortable with the Internet. Consumers with a low literacy of information technology will usually perceive online shopping as complex (Lian & Yen, 2014) and easily perceive a website as risky, due to the inherent lack of face-to-face contact with service staff (Khare *et al.*, 2012).

The website of an online retailer is crucial as consumers use the website to search for product information, make payments and complete purchases. Perceived website usability influences online consumer perceptions towards an online retailer and thus, it is crucial that a website is quick and easy to use and provides the consumer with comprehensive information (Zhang, Fang, Wei, Ramsey, McCole & Chen, 2011). If a website does not encourage consumers to shop online or takes too long to complete the purchase process, perceived performance risk, as well as perceived time risk could increase.

#### 1.3.4.4 Time risk

Perceived time risk has been defined as the amount of time lost as a result of a product or service failure and time spent correcting the error (Mitchell & Groatorex, 1993). Online service failures often include delivery errors, slow Internet connections and website navigation and extended periods of information search. Problems accessing websites, time spent waiting for downloads and tedious navigation have been found to inhibit online shopping intentions (Srinivasan, 2015). Because online shopping does not afford consumers the opportunity of sensory product evaluations before purchase, consumers are likely to have to engage in extended periods of information search and website navigations to decrease perceived risk (Huang *et al.*, 2004).

Consumers also face extended periods of information search, because certain websites do not provide sufficient or easily accessible information regarding products, delivery or returns (What is slowing down the growth of e-commerce in South Africa, 2015). In addition, certain website designs increase confusion amongst consumers, as they do not provide the same quality of information as interaction with sales staff in brick-and-mortar stores.

Consumers often cite delivery as a major obstacle to online shopping as delivery services in developing countries, such as South Africa, are not as reliable as in developed countries (E-commerce lags in South Africa, 2015). In South Africa, delivery entails that the consumer has to wait at home for the product and delivery is often done at random times of the day. Delivery services also often fail and the product does not reach the consumer. Many consumers refrain from engaging in online shopping due to the struggle with delivery and returning incorrect items. Unpleasant online experiences, as a result of delivery or return issues, often circulate amongst consumers and discourage social groups from shopping online, which increases the social risk that consumers perceive.

#### 1.3.4.5 Social risk

Social risk is defined as the probability that shopping online will result in peers thinking less favourably of the consumer and is often termed 'external psychological risk' (Pires *et al.*, 2004). With regards to online shopping, perceived social risk includes subjective norms, which refers to an individual's desire to comply with the expectations of other

influential consumers (Khare *et al.*, 2012). Subjective norms capture the consumer's perceptions of the influence of significant others, such as parents, peers and the media (Javadi *et al.*, 2012). Consumers with influential personalities will only shop online if it has been accepted by social circles.

Many consumers are influenced by social groups and exhibit a tendency to behave according to social norms, but the extent to which consumers are willing to act on the basis of words of others differs (Kaur & Quareshi, 2015). Consumers with a strong desire for social recognition are more likely to be influenced by normative influences than consumers with a low desire for social recognition (Khare *et al.*, 2012). Thus, if the social norm has been established to not engage in online shopping or with certain online retailers, some consumers will perceive increased social risk. Generation Y consumers, who are accustomed to operating in groups and are aware of societal norms, are predicted to be more susceptible to perceive social risk to online shopping. Group conformity and social norms are important to this cohort as it minimises consumers' perceptions of risk and security (Khare *et al.*, 2012). Social norms are often communicated by means of word-of-mouth communications.

For online services, word-of-mouth communication has been adapted to electronic word-of-mouth (eWOM). Electronic word-of-mouth is defined as 'any positive or negative statement made by potential, actual or former consumers about a product or retailer, which is made available to a multitude of people via the Internet' (Al-Debei *et al.*, 2015). The impact of eWOM has been amplified due to rapid advancements in technology that allow opinion polls and online recommendations to be perceived as credible and trustworthy (Al-Debei *et al.*, 2015).

Consumers trust information received from other consumers and not only does this affect the purchase intent of consumers, but also the reputation of an online retailer. Retailer reputation involves consumers' perceptions of the retailer's image, innovativeness, commitment to satisfaction and product quality (Zhang *et al.*, 2011). The current study considers reputation and image to be distinct, but connects the variables and discusses reputation as a factor that influences image. The credibility of a retailer is linked to its reputation and consumers tend to prefer retailers with positive reputations to decrease their perceived social risk.

#### 1.3.4.6 Physical risk

Physical risk is the probability that a product or service will result in physical damage to the consumer after purchase (Pires *et al.*, 2004). Certain products have the potential to harm a consumer once in use or due to incorrect use by the consumer. Product categories such as pharmaceutical products and exercise equipment are more likely to pose a physical risk to consumers. For the current study, physical risk is not discussed as online shopping poses minimal physical risk to consumers and limited previous research exists for physical risk in online shopping.

### 1.4 PROBLEM STATEMENT

Although online shopping in South Africa is steadily developing, it still lags behind the growth and adoption rates of other regions. Online sales in South Africa account for only 1% of retail sales, even though growth rates of 35% were reported in 2014, in comparison to a growth rate of 7.5% for traditional retail (What is slowing down the growth of e-commerce in South Africa, 2015). Economic indicators reflect that online shopping in South Africa is still in its infancy compared to the United States (USA) and Europe, but research has shown that online shopping in South Africa holds potential to grow (E-commerce lags in South Africa, 2015). Previous research indicates that there are many obstacles that delay the adoption of online shopping in South Africa.

Obstacles that hinder the growth of online shopping enhance the risks that consumers perceive with online shopping (What is slowing down the growth of e-commerce in South Africa, 2015). Given the increasing prevalence of business-to-consumer online shopping, there is an urgent need to understand the dynamic phenomena of perceived risk in online exchanges. Perceived risk barriers to online shopping must specifically be addressed amongst Generation Y consumers, due to the size and influence of the technologically enabled market segment (Smith, 2012).

The technology rich world in which Generation Y consumers have grown up has provided them with constant access to instantaneous news updates and social media, not experienced by previous generations (Twenge & Cambell, 2008). Generation Y consumers are used to rapid advancements in technology and would therefore be predicted to perceive less risk and be more comfortable and trusting of online shopping.

There are three gaps evident in previous literature that are addressed in the current study:

- i. Research regarding online consumer behaviour in South Africa is minimal and to increase the adoption of online shopping in South Africa, it is imperative that research be conducted for the South African online market. Many previous studies discuss online consumer behaviour for consumers in the USA, Malaysia and India, but few studies exist for the South African context.
- ii. In addition, fewer online studies can be found for specifically the Generation Y consumer market in South Africa. As explained in the current study, Generation Y consumers are important for the development and adoption of new technologies and it is important for researchers and marketers to have a thorough understanding of this group.
- iii. The current study takes this approach by attempting to examine the relationship between perceived risk and online purchase and repurchase intent. Previous research is often largely directed at uncovering motivations behind online shopping and the benefits that online shopping offer. However, with the relatively slow adoption of online shopping in South Africa, it is important to focus research on addressing the factors that inhibit consumers' uptake of online shopping (Pires *et al.*, 2004). Although increasing attention has been given to online consumer behaviour in the last decade, there is a paucity of research that attempts to integrate findings from a marketing and consumer behaviour perspective (Darley, Blankson & Luethge, 2010).

The motivation for the current study lies in the increased use of technology and the Internet by South African consumers. Consumers today demand convenience and time and money savings to complement their fast-paced lifestyles. Online shopping would seem to answer such demands, but continues to experience slow growth in South Africa. The gap that exists in literature on reasons why South African Generation Y consumers, who are able to shop online, still refrain from doing so, provides impetus for the current study. The research initiating question that will guide this study can be formulated as: *What are the perceived risk barriers inhibiting the adoption of online shopping amongst technologically enabled Generation Y consumers in South Africa?*

## **1.5 RESEARCH OBJECTIVES**

The motivation for the study is to determine which perceived risks hinder the adoption of online shopping amongst technologically enabled Generation Y consumers in South Africa. Therefore, the following primary and secondary objectives are formulated.

### **1.5.1 Primary objective**

To investigate the perceived risk barriers that prevent technologically enabled Generation Y consumers from shopping online in South Africa.

### **1.5.2 Secondary objectives**

The secondary research objectives of the study were to investigate:

- i. The relationship between perceived risk and online purchase intent of Generation Y consumers in South Africa when shopping for clothing.
- ii. The relationship between perceived risk and online purchase intent of Generation Y consumers in South Africa when shopping online for books.
- iii. The relationship between perceived risk and online repurchase intent of Generation Y consumers in South Africa when shopping for clothing.
- iv. The relationship between perceived risk and online repurchase intent of Generation Y consumers in South Africa when shopping for books and,
- v. To describe the technology use of South African Generation Y consumers.

## **1.6 RESEARCH METHODOLOGY**

The following section introduces the research design and the secondary and primary research methods that followed in the current study. It also explains the target population, sampling method and size, measuring instruments, as well as the data processing methods used.

### **1.6.1 Research design**

Zikmund and Babin (2010:66) posit that a research design is ‘a master plan that provides a framework for the study.’ It specifies the procedures and methods that will be used to collect and analyse the required data to give effect to the research objectives. The current study will include exploratory research, during the initial stages of the research process, followed by descriptive research. These research methodologies are explained in following chapters.

For the current study, it was imperative that primary and secondary research be conducted to collect data about the online behaviour of South African Generation Y consumers. Secondary research will be conducted first to compile a literature review, followed by primary research.

### **1.6.2 Secondary research**

A literature review was constructed as a result of the secondary research and included information collected from various valid and reliable sources. Specifically, electronic databases, such as Google Scholar, Emerald Insight and EBSCOHost acted as sources and were accessed through the Stellenbosch University library service. The e-databases were consulted for scientific and news articles and marketing journals related to the topic of the study. The secondary research and literature review provided the researcher with a clear understanding of the variables investigated in the study, as well as the domain of the research problem.

### **1.6.3 Primary research**

Primary research was conducted to answer the research question, as no previous findings could be identified that address the specific problem investigated in the current study.

A two-phased approach was employed, which included both qualitative and quantitative methods. Qualitative research was conducted first, in the form of a focus group. The interviewer facilitated a focus group session with 25 students who fit the criteria for the study (i.e. South African, Generation Y) to gain insight into the online behaviour of consumers. The information obtained from the focus group was used in conjunction with previous literature to compile a questionnaire that was used in a survey for further data collection.

Secondly, an online survey was used to conduct quantitative research, because it is relatively easy to administer, could be conducted at a low cost and is a reliable research tool. The survey was created using SUNSurveys and after being granted institutional permission, it was sent via e-mail to students at Stellenbosch University to complete on a voluntary basis. A screening question was included at the beginning of

the questionnaire to ensure that only South African citizens completed the questionnaire.

#### 1.6.3.1 Target population

The target population of a study denotes all the objects that possess a common set of characteristics relevant to a marketing problem (Blumberg, Cooper & Schindler, 2011). The target population of the current study was described as South African Generation Y consumers. The target population description did not discriminate between consumers who have access to the Internet or who have previously purchased online, and those consumers who have not. Thus the target population included potential and experienced online consumers and comprised of South Africans between the ages of 18 and 36 years. Because the target population included a large amount of potential respondents, a sample was drawn.

#### 1.6.3.2 Sampling technique and size

The researcher could not obtain access to a list of all the members included in the target population. As a sampling frame was not available for the current study, a non-probability sampling method was used to gather data. For the purpose of the quantitative phase of the study, the sample was drawn using convenience methods, because it is easy to administer and could be conducted at a low cost.

The choice of students as respondents can be motivated by the fact that they form a part of the Generation Y cohort, are technologically enabled and were chosen for the reason that they have regular access to Internet on the university campus or at home. Students are often targeted as respondents, as they make up a large portion of the generational cohort (Ramnarain and Govender, 2013). They are a large and financially viable target market and an important market for retailers to understand.

The researcher obtained permission and access to contact all students at Stellenbosch University via the university database. Respondents could voluntarily complete the survey and return it anonymously. The sample size for the study included 606 (n=606) respondents, as it was the number of complete responses to the survey, and deemed sufficient for the current study. For the qualitative phase of the research, participants

in the focus group were approached, based on the fact that they fit the criteria and were conveniently available to the researcher.

#### 1.6.3.3 Measuring instrument

Two measurement instruments were administered. For the qualitative phase of the study, a question route (Annexure A) was developed to guide the discussion during the focus group. For the quantitative phase of the study, a self-administered questionnaire (Annexure B) was developed.

The questionnaire consisted of items from previous studies that pertain to the domain of the current study. Items were taken from previous studies, such as a study by Javadi et al. in 2012. The questionnaire started with a screening question and items concerning the demographics (age and gender) of respondents. The screening and demographic items were presented in the form of dichotomous items to determine respondents' eligibility to participate in the study.

Feedback from the focus group was used to construct section A of the questionnaire, aimed at uncovering the technology use and habits of Generation Y consumers. The items asked consumers how often, why, and when they use the Internet and thereafter, respondents were divided into two groups; Sample 1: consumers who had purchased online before (i.e. experienced online consumers) and Sample 2: consumers who were new to online shopping (i.e. new online consumers). The purpose of the division was to differentiate between measuring purchase and repurchase intent of consumers.

Following section A, section B contained 55 items that measured five dimensions of perceived risk (i.e. financial risk, psychological risk, performance risk, social risk and time risk) as well as online purchase and repurchase intent. Each dimension of perceived risk was measured by ten items and online purchase and repurchase intent were measured by five items. The survey consisted of a total of 55 items. A seven-point Likert scale was used to simplify answering as respondents only had to mark a 'x' in the block that corresponded most to them. The data from the results of the final questionnaire were analysed to draw conclusions.

#### 1.6.3.4 Data analysis

Data was collected electronically from the questionnaire, processed using Excel and transformed using Statistica. Prior to the data analyses, reliability tests were performed to assess the measurement quality of the questionnaire, namely the analysis of composite reliability, the Average Variance Extracted (AVE) and Cronbach's coefficient alpha. Descriptive statistics were performed in the preliminary analysis of the data, while inferential statistics were employed to test the hypothesised relationships.

The purpose of the inferential data analysis was to address the research hypotheses of the study. The proposed model was analysed by using the partial least squares (PLS) technique, which consisted of a measurement model and a structural model. PLS offers various advantages for studies including structural equation models (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014) and requires a multi-stage process to specify inner and outer models. The hypothesised negative relationships between the five dimensions of perceived risk and purchase and repurchase intent were tested for consumers with online shopping experience, as well as for consumers who are new to online shopping, and for the context of high (clothing) and low involvement (books) products.

### **1.7 ETHICAL CONSIDERATIONS**

Prior to commencing the research, the researcher was required to apply for institutional permission and ethical clearance from the Departmental Ethics Screening Committee (DESC) at Stellenbosch University. The ethical clearance and institutional permission allowed the researcher to administer the survey among Stellenbosch University students. The DESC committee considered the research proposal and measuring instrument of the study in their decision to award ethical clearance and classify the study as 'low risk'. The current study investigates online shopping behaviour and does not pose risk or harm to respondents.

### **1.8 CONTRIBUTION OF THE STUDY TO THE UNDERSTANDING OF ONLINE SHOPPING IN SOUTH AFRICA**

As online shopping is a relatively new and evolving concept, especially in developing countries such as South Africa, it is important for marketers and academics to understand this phenomenon. Many studies regarding online behaviour have been

conducted internationally, but few exist for the South African context. The current study is unique in that it studies online consumer behaviour amongst South African Generation Y consumers. The study attempts to offer explanations for the slow growth of online shopping in South Africa.

Previous studies have analysed factors that motivate consumers to engage in online shopping such as, convenience and time savings, but fewer previous studies have focused on the obstacles that hinder the use of online shopping among technologically enabled consumers. The current study contributes to theoretical development of the existent literature, as no previous study could be identified that examined the perceived risk barriers to online shopping amongst the South African student community.

This study makes a contribution because it offers a structural model in which the relationship between five dimensions of perceived risk and purchase and repurchase intent are represented in one comprehensive model. The model can assist both researchers and online retailers to gain insight into the online shopping experience for younger South African consumers.

## **1.9 ORIENTATION OF THE STUDY**

This section outlines and briefly describes each of the chapters that are included in the current study.

### **CHAPTER ONE: INTRODUCTION TO THE STUDY**

The purpose of the first chapter is to introduce the reader to the topic of the study and provide the reader with a broad overview regarding the background of the study, the problem statement for the study, the research objectives and the methodology to be followed during the study. The concept of online shopping is introduced as well as various related concepts, such as perceived risk.

### **CHAPTER TWO: THE EVOLUTION OF RETAIL**

Chapter two discusses previous literature regarding the advancement of the Internet, and online shopping within the global and South African context. The chapter illustrates the advancement of the Internet and how it has been adopted over time, where the Internet has become a catalyst for online shopping. The chapter further explains the

concept of online shopping in terms of concepts such as, consumer involvement and e-service quality. The chapter also considers the Internet revolution and the development of online shopping within the South African context specifically and lays the foundation for a more comprehensive understanding of online shopping.

### CHAPTER THREE: CONSUMER BEHAVIOUR AND RISK PERCEPTION

Chapter three discusses consumer behaviour, including theories that are relevant to the adoption and perceived risk. The literature and theories assisted the researcher to establish the underlying reasons for consumers' behaviour and intentions with respect of online shopping. Chapter three also introduces the reader to the target group of the current study and provides justifications for basing the study on generational theory. Lastly, the chapter discusses the theory of perceived risk and how it is applicable to online shopping.

### CHAPTER FOUR: RESEARCH METHODOLOGY

This chapter addresses the research process, which includes the research design, target population, sampling frame, sampling method, sampling size, data collection, measurement, pilot testing and data analysis. The chapter also covers the steps that were taken to conduct partial least squares (PLS) analysis, which includes the measurement model, structural model and model fit indices.

### CHAPTER FIVE: RESULTS AND DISCUSSION

Chapter five discusses the results of the study. It explains the use of statistical inferential analyses, such as PLS, that enabled the researcher to draw conclusions reported in chapter six. PLS tested the latent variables in an effort to uncover the relationship between perceived risk dimensions and online purchase and repurchase intent.

### CHAPTER SIX: SUMMARY, CONCLUSIONS AND MANAGERIAL IMPLICATIONS

In Chapter six, conclusions are drawn on the research conducted. Recommendations are made based on the results discussed in chapter five. The limitations of the research are outlined and suggestions for future research are provided.

## CHAPTER 2

### THE EVOLUTION OF RETAIL

#### 2.1 INTRODUCTION

The modern economies of many countries look different than they did ten years ago (MacKenzie, Meyer & Noble, 2013). The way in which consumers are making decisions has been altered dramatically with the influences of technology, social media and an increasing variety of brands. At a time when the global economy is susceptible to change, the retail industry is becoming crucial to economies worldwide. For example, the United States retail sector generates 5.7% of the country's Gross Domestic Product (GDP) and creates an estimated 5 million jobs (Amadeo, 2016). The retail sector is equally important and growing exponentially in emerging economies such as, Mexico, Brazil, Argentina, South Korea, India, China and South Africa (AT Kearney, 2016) and the importance of these emerging markets in the global economy is significant.

This chapter will address the importance of the retail industry in the global and local market and focus on how retail industries have developed their business model and offerings with the advancement of the Internet. Further focal points will include the evolution of the Internet, the development and delineation of online shopping together with the global and South African online retail industries. Attention will be given to the growth factors and trends that specifically affect the online market in South Africa.

#### 2.2 THE RETAIL INDUSTRY

The retail industry is defined as 'establishments selling merchandise for personal or household consumption and consists mainly of apparel, technologies, food and pharmaceuticals' (Lucintel, 2016:1). During the years 9000- 6000 BC, the earliest form of retail was established as barter systems in which cows, camels and sheep were traded as currency (Braun, 2015). As accounting systems and technology, such as cash registers developed, the first modern day department store was constructed in 1890. Originally, retail was conducted in the form of single-product or local 'corner stores' that governed the late 1800s and early 1900s and choice was limited for consumers (Leibowitz, 2013). However, with the introduction of the automobile and in-house refrigeration, these specialty stores transformed into department stores that

offered consumers a wide range of products, services and brands from one location (KPMG, 2009).

By 1929, the first supermarkets opened in America and consumers could find various grocery items under one roof (Braun, 2015). As department stores transformed into hyper- and supermarkets, the retail landscape changed from category-specific stores to 'one-stop' shops (KPMG, 2009). Between 1930 and 1960, the shopping mall culture was established with the invention of the first shopping cart and electronic cash registers (Braun, 2015). Aided by advances in technology and developments in direct marketing and distribution systems, retailers created new ways to reach and satisfy their consumers' needs, resulting in the ability to reach a larger consumer base.

The consumer base continued to expand with the introduction of global online shopping in 1994 and the establishment of Amazon. The retail industry has experienced much growth over the past decades and continues to grow globally and locally. Lucintel, a global market research firm, predicts that in 2017 the global retail industry will reach approximately \$20,002 billion with a growth rate of 3.9% from 2012 (Lucintel, 2016). In their report, *Global Retail Industry: 2012-2017: Trends, Profits and Forecast Analysis*, Lucintel also indicates that the global retail market is largely driven by the Asian Pacific region, which represents 35% of the global retail market (Lucintel, 2016). Although dominated by developed countries, the global retail industry is also largely affected by emerging economies.

The global retail industry is largely focused on developing nations with rapidly expanding middle classes, such as the Black Diamond consumer group in South Africa, attracting large businesses to these countries. The growing middle class is one of the key factors driving international retail expansion in developing countries on the African continent (*More in store for African retail & consumer businesses*, 2016). The modern retail industries in the BRICS (Brazil, Russia, India, China and South Africa) countries are said to have maximum growth potential and according to reports, global retail sales reached \$24 trillion in 2015 (Agarwal, 2015). These figures highlight the importance of the retail industry in the economies of all countries, but especially in developing nations, such as South Africa (Ward, 2015).

The economic performance of South Africa underwent drastic change in the 1900s during the country's political transformation to a democratic society. From 1984 to 1994, South Africa experienced poor growth performance rates due to international sanctions and local opposition to the Apartheid government (Du Plessis & Smit, 2006). The transition to a free and democratic South Africa in 1994 welcomed stable economic growth, an increase in consumer income and gave rise to a growing black middle class (Retail in South Africa, 2011). Following the 1992 economic recession in South Africa, the country was again affected by a recession in 2008 (South Africa goes into recession, 2009). The country fell victim to a decrease in consumer spending and lower overall household spending during 2009. However, fiscal policies, increased infrastructure spending and tourism income from the 2010 FIFA Soccer World Cup, gave the economy and retail sales a much-needed boost (Retail in South Africa, 2011).

Today, the South African retail industry is one of the largest retail industries in sub-Saharan Africa and was ranked 6<sup>th</sup> in the African Retail Development Index (A.T Kearney, 2015:1). The Index ranks the most attractive markets, as well as those markets with the most growth potential. In 2011, the tertiary sector (the economic sector concerned with the provision of services) contributed 69.1% to the South African economy, of which the retail and wholesale trade sector contributed 13.7% (Aye, Balcilar, Gupta & Majumdar, 2013:2). The importance of the South African retail industry is further illustrated by the employment figures that the industry boasts. The retail industry generally contributes to approximately 7% of total national employment figures, the highest being 7.9% in 2006 (The Retail Industry on the Rise in South Africa, 2012:24). Statistics prove the retail industry to be one of the leading industries in the country, in terms of share of employed labour force (Aye *et al.*, 2013).

Even though retail industries in South Africa and across the world are important to economies and are characterised by a stable growth rate and rising consumer demand, various risks such as poor governance and logistical problems still pose threats to the retail industry. Retailers are responding to these threats and changes within their environments by adapting their business strategies and in response, consumers are adapting to these changes by adjusting their shopping behaviour. Due to Internet advancements and changes in consumer preferences and need sets, the use of the Internet for commercial activities is gaining momentum as one of the

strategies employed to adapt to the changes in the retail setting and consumer shopping behaviour. More than ten years after the origin of online shopping in the country, the majority of South African retailers still have brick-and-mortar stores that consumers visit to purchase products. However, many consumers are shifting from this traditional shopping channel to using the Internet as a shopping channel, or using both channels depending on situational variables. As traditional retailers face increasing competition, it is imperative that they strive to improve their offering by integrating an in-store channel and online presence via the Internet (Spence, Puccinelli, Grewal & Roggeveen, 2014).

### **2.3 THE EVOLUTION OF THE INTERNET**

The introduction of the Internet revolutionised communication with its broadcasting, information dissemination and interaction capabilities (Press, 2015). The two important inventions that aided the revolution of communication was the establishment of the ARPAnet in 1969, that later became known as the Internet, and the proposal by Tim Berners-Lee in 1989 for what is known as the World Wide Web (Press, 2015).

The Internet is a well-known and extensive 'superhighway' defined by Forsythe and Shi (2003:868) as 'a network of computer networks, which is capable of providing virtually instant access to a vast storehouse of information spanning the globe.' The rise of the Internet has propelled the retail industry into an electronic age, changing the daily lives of consumers, including their communication and shopping behaviours (Darley *et al.*, 2010). Not only has the rapidly changing online environment changed the lives of consumers; it has also created a competitive business landscape, presenting retailers with various opportunities and challenges.

Being a global medium, the Internet removes barriers to communication created by geography and time zones, enabling a frictionless business environment (Lee, Eze & Ndubisi, 2011). It is easier and less expensive for businesses to venture into the global market via the Internet and therefore, having an online presence has become a necessity in the new digital economy (Lee *et al.*, 2011). According to Lee *et al.* (2011), although the advancement of the Internet presents opportunities and challenges to consumers and businesses, many are slow to adopt this advancement in communications technology.

The use of wireless technologies to access the Internet to conduct commercial activities continues to increase in most parts of the world and also in South Africa (Dlodlo & Mafini, 2013). The Global Information Technology Report (2015:14) by the World Economic Forum ranked South Africa as the third most developed African country in terms of information communication and mobile technologies, following Mauritius and the Seychelles. Despite evidence suggesting that Internet technologies enhance the long-term growth rates of economies and have twice the effect on developing countries as on developed countries, many nations still battle to accept new technologies (Dlodlo & Mafini, 2013).

However, research by Modimogale and Jan (2011) found that Internet awareness and usage in South Africa has undergone amplification. This development has driven reliance on Internet technologies amongst South Africans (Dlodlo & Mafini, 2013). The Interactive Advertising Bureau of South Africa (IABSA) conducted research to compare the South African online community of April 2015 with the online community of April 2016 (South Africa Online, 2016). For both years, the gender distribution of South Africans using the Internet was recorded as equal and for both years consumers between the ages of 25 and 29 years were found to be the most active respondents online (South Africa Online, 2016:1). The IABSA conducted further research into the South African online community and found that in June 2016 there were 4 million unique Internet browsers daily (i.e. the number of devices requesting Internet content, not individual people) and 1 billion page views on average (South Africa Online, 2016:1).

The South Africa Digital Measurement Report (2016:1), by IABSA and Effective Measure, investigated the online behaviour of South Africans and found that the majority of Internet access came from Gauteng residents (38%) and that 61% of South Africans accessed the Internet through their smartphones. South Africa can be described as an active online nation with 79% of respondents having accessed the Internet the day before taking the survey and a further 10% having accessed the Internet at least within the past ten days of taking the survey (South Africa Digital Measurement Report, 2016:1).

Consumers were found to use the Internet for various reasons (e.g. e-mail, banking) and over the past decades, the Internet has developed into a vast global marketplace

for the exchange of goods and services (Javadi *et al.*, 2012). The Internet thus allows businesses to remain competitive by providing consumers with more convenient, faster and cheaper ways to conduct their purchases, for example to purchase and pay for products and services using online platforms (Lee *et al.*, 2011).

The popularisation of the Internet has made online shopping a common trend and further encouragement from social networks has managed to change consumption habits to shift attention to the development of e-commerce (Hsieh & Tsao, 2014). The evolution of online shopping strongly depends on the acceptance and understanding of the Internet and information technologies by consumers (Hernandez, Jimenez & Martin, 2011). However, despite the fact that many South African consumers are active on the Internet, only a small portion use the Internet for retail (E-commerce lags in South Africa, 2015).

It is crucial for retailers to take note of the changing consumer behaviour and use the advancement of Internet technologies to their advantage. The e-commerce revolution brings about a new knowledge-based economy, as the Internet provides consumers with accurate and timely information (Gounaris, Dimitriadis & Stathakopoulos, 2010). It is well recognised that the Internet presents a fundamentally different shopping environment than traditional shopping channels. As such, traditional marketing paradigms, theories and activities need to be re-evaluated within this new context and online retailers must deliver superior shopping experiences to their consumers to be successful in a highly competitive environment. The online shopping revolution globally and in South Africa will be the focus in the following section with the explanation of the concept of online shopping.

## **2.4 THE CONCEPT OF ONLINE SHOPPING**

The Internet has transformed many aspects of human life, especially how consumers search for and purchase products. Consumers across the globe and in South Africa are opting to shop from home for reasons such as privacy, convenience and the desire to spend more time with family (Foscht, Ernstreiter, Maloles, Sinha & Swoboda, 2013; White, 2016). As a result, online shopping (purchasing products or services via the Internet) is a fast-growing international phenomenon that has been adopted by rapidly growing numbers of consumers (Hsin, 2000). Online shopping has developed from online storefronts, where products from a single retailer were offered to consumers

through an online catalogue (Chua, Khatibi & Ismail, 2006), to where online shopping is considered as a form of direct marketing (non-store retailing) using online channels. This so-called omni-channel (seamless multi-channel retailing) option presents exponentially rising business opportunities to modern retailers (Richa, 2012).

Online retailing can be divided into three types namely, business-to-business (B2B), business-to-consumer (B2C) and consumer-to-consumer (C2C), with the two consumer centred modes dominating online retailing (Hsieh & Tsao, 2014). Business-to-consumer (B2C) e-commerce, or online shopping, holds the most advantages for consumers as it carries higher credibility, delivers products quickly and accurately and offers diverse payment options and guarantees (Hsieh & Tsao, 2014).

In the business-to-consumer online domain, consumers' use of the Internet is driven by the search for product features, prices or reviews and the selection of products and placing orders (Javadi *et al.*, 2012). Anecdotal evidence suggests that the global adoption of online shopping is increasing at a fast pace, yet there is variation in the types of products purchased (Coker, Ashill & Hope, 2011). For example, not all consumers are motivated to purchase clothing or groceries online, but will purchase electronics online. Furthermore, product-specific online shopping intention is also influenced by the level of involvement by the consumer.

#### **2.4.1 Consumer involvement**

When studying online consumer behaviour, a distinction is often made between high and low consumer involvement (Constantinides, 2004). O'Cass (2000:548) views the construct of involvement to be linked to the interaction between a consumer and the product and defines involvement as the relative strength of the consumer's cognitive structure related to a focal object (i.e. the product). Petty and Cacioppo's (1984) Elaboration Likelihood Model (ELM) also explains consumer involvement by highlighting how consumers make decisions under differing levels of involvement. The ELM model suggests that there are distinct differences in decision-making between consumers who are high in involvement and consumers who are low in involvement (Hourigan & Bougoure, 2012). The ELM suggests that a central route (persuasion via information) is used for high involvement decisions and a peripheral route (persuasion via visual cues) is used for low involvement decisions (McAlister & Bargh, 2016).

According to research by O’Cass (2000), purchases have different meanings for consumers and various types of involvement exist for different product types and purchase situations. O’Cass (2000) identifies four types of consumer involvement namely product involvement, purchase involvement, advertising involvement and consumption involvement. Not only can a consumer be involved with the product, but also with the purchase process and consumption of the product. The current study focuses on product and purchase involvement as types of consumer involvement.

Product involvement has been defined as ‘an internal state that indicates the amount of arousal and interest induced by a product’ (Dholakia, 2011:1341), while purchase involvement has been defined as ‘the degree to which a consumer is involved in the purchase decision’ (O’Cass, 2000:548). Existent literature shows that product involvement will lead to greater purchase involvement (Hourigan & Bougoure, 2012) and the more involved a consumer is with a purchase, the more risk the consumer will perceive (Dholakia, 2011).

For example, the purchase of clothing usually requires that a consumer be more involved in the product and purchase process as clothing is often purchased for its symbolic meaning, image reinforcement and psychological satisfaction (Hong, 2015). Clothing items are not generic items as their fit and aesthetic appeal will differ between consumers and therefore, consumers tend to perceive more risk when purchasing clothing items online. In contrast to this, the purchase of books requires less product and purchase involvement from consumers, as books are standard items sold in the same way, across various mediums. Therefore, consumers are expected to perceive less risk when purchasing books online.

Risk is often viewed as an antecedent of involvement, especially when the price of a product is high (Mitchell, 1999). Laurent and Kapferer’s (1985) pivotal conceptualisation of consumer involvement includes four components, of which two are related to risk. The four components are the product’s pleasure value, its symbolic value, risk importance and the probability of a purchase error. Retailers employ certain strategies to reduce the risk inherent to high involvement purchases.

Information provided by an online retailer during the purchase process is important in minimising perceived risk, thus potential consumers collect and consider more

information about the online retailer when purchasing high involvement products (Wang & Chang, 2013). However, the current study views involvement as a moderator for in the relationship between perceived risk and purchase intent. This view is supported in seminal research by Roselius (1971), which contrasts Dholakia (2011), and maintains that risk reduction is linked to involvement, as high levels of involvement with a brand is commonly known as brand loyalty which has been proved to be a major risk reducer. High or low involvement purchases is also a factor of consumer experience, as purchasing products for the first time requires more involvement than frequently purchased products (Constantinides, 2004).

In the current study, based on research confirming varied levels of involvement and perceived risk for different product types, a distinction is made between high involvement (clothing) and low involvement (books) products. This distinction is made, because it is expected that consumers have differing online purchase intentions for different products. Another important influence to the online purchase intentions of consumers is e-service quality.

#### **2.4.2 E-service quality**

To develop a wider base of experienced Internet shoppers, increase repurchase intentions and encourage consumer loyalty, online retailers must shift their focus from transactional aspects to the aspects of e-service (Hsieh & Tsao, 2014). Online retailers must ensure that consumers receive satisfactory service throughout their entire shopping experience. As a result of the importance of e-service in purchase intentions, e-service quality measures (that determine the service experience of consumers) have become a dominant factor in the success of e-commerce. Because online services, such as online shopping, are impersonal, defining indicators that measure online service quality is difficult (Roger-Monzo, Marti-Sanchez & Guijarro-Garcia, 2015).

Parasuraman, Zeithaml and Malhotra (2005) proposed that e-service quality should encompass all phases of consumer interaction with an online retailer, defining it as the extent to which online retailers facilitates efficient and effective shopping, purchasing and delivery. Their research proposes the E-S-Qual scale with seven indices to measure e-service quality. The first scale measures basic aspects of services and includes efficiency, system availability, reliability and privacy. The second scale

measures service recovery aspects and includes responsiveness, compensation and contact (Roger-Monzo *et al.*, 2015).

As explained above by the E-S-Qual scale, e-service quality can be viewed from two perspectives: firstly, incorporation of the basic functions provided by an online retailer and secondly, the extent to which difficulties are resolved or consumer queries are answered by the retailer. Therefore, e-service quality cannot be limited to only the design of a website, but includes remedial actions and communication of after sales services (Parasuraman, *et al.*, 2005). Even in the long-term, websites with optimal designs and low prices cannot make up for the negative effect of poor service quality.

The negative effect of poor service quality is cited as a reason why many consumers prefer to search for products online, but make purchases in traditional shopping environments (Hsieh & Tsao, 2014). Many consumers prefer shopping in-store where they can deal directly with support staff and examine a product before purchasing. South African consumers do not entirely reject the concept of online shopping, but are hesitant to participate due to the risks that they perceive (White, 2016). Pappas (2016) posits that consumers tend to switch between brick-and-mortar stores and online environments when buying products and that adjusting marketing strategies could persuade consumers to shop online. The hesitance of South African consumers stands in contrast to global consumers who regularly engage in online shopping.

## **2.5 GLOBAL ONLINE SHOPPING**

Global online shopping is growing rapidly and is expected to grow from 7.4% in 2016 to 8.8% of total retail spending by 2018 (Saleh, 2016:1). Although online retail sales are growing across the globe, some countries are more advanced than others in their development of online shopping. An article by Saleh (2016:1) reports that the United Kingdom has the highest online retail sales, as a percentage of total retail sales at 15.6%, followed by China (13.8%), Norway (11.5%), Finland (10.8%) and South Korea (10.5%).

Online retailers in larger, more developed nations are benefitting from globalisation and finding possibilities for growing their brand in other markets (Global Retail E-Commerce Index, 2015) and several brick-and-mortar retailers have used online shopping to expand internationally. The Nielsen Company conducted a survey in 2010,

across 27 000 Internet users in 55 different markets, to investigate how consumers shop online and what they buy (The Nielsen Company, 2010). Globally, one-third of respondents reported that they purchase products from retailers with one presence (e.g. Takealot.com), followed by 20% of respondents who preferred shopping from online retailers with an online and brick-and-mortar presence (e.g. Woolworths). Furthermore, online consumers across the globe reported that books and clothing would continue to be their most planned online purchase within the next six months. International shipment and order fulfilment are improving and many logistical companies make it possible for online retailers to ship their products across the world and overcome currency, customs and return issues (The Nielsen Company, 2010).

It is important for online retailers to understand the global online market to ensure that they are up to date with the latest developments in technology and shifts in consumer behaviour. For retailers, the disruption by online businesses is increasingly gaining momentum which intensifies the need to identify consumer behaviours that will drive the retail revolution going forward (8 key insights that will drive changes in online and in-store retail, 2016). The Total Retail Report by PwC (2016) addresses trends that will affect future consumer behaviour during the global consumer revolution. The survey conducted in the report included nearly 23 000 online consumers in 25 different countries, as well as 1 000 South African consumers. Key insights from the report will further be alluded to in the following points (8 key insights that will drive changes in online and in-store retail, 2016).

- To understand the future of online shopping behaviour on a global scale, it is imperative that retailers understand consumer behaviour within the Chinese market. Data from the PwC report shows that early trends in China, such as online shopping, are later seen in other markets. The importance of the Chinese online shopping market is illustrated by leading Chinese retailer, Alibaba, who has overtaken Walmart as the world's largest retailer (Alibaba passes Walmart as world's largest retailer, 2016).
- Affordability is a major driver of shopping behaviour across the world and many respondents in the PwC report indicated that they choose certain retailers because of the prices they offer. In some countries however, consumers reported convenience as much a part of value as price.

- The continued importance of physical stores remains noteworthy. Respondents in the survey reported that they prefer to research products online, but make purchases in-store. Consumer electronics is an example of a product category where 47% of South African respondents reported conducting their research online, but 60% completed their purchase in-store.
- The previous trend affirms the significant role that retail employees and sales staff play in today's 'tech-savvy' retail environment. Sales staff need to have an extensive knowledge of product offerings to serve technologically enabled consumers.
- Consumers are buying more products online using their mobile phones. Mobile commerce has been said to be a major driver of online shopping. The PwC study found that many younger respondents had used smartphones as their shopping channel of choice and 27% of respondents acknowledged that they have made payments on their cell phone in the past.
- The majority of South African consumers (88%) reported to be part of at least one loyalty program. This traditional method of reinforcing consumer-retailer relationships includes member-only discounts, reward points and free shipping to encourage consumers to shop from local retailers.
- Respondents from emerging markets (92%) were especially influenced by social media, compared to consumers from developed nations (66%). Of those respondents who had interaction with a brand on social media, 64% reported that it increased the respect and value they attributed to the brand.
- Consumers were found to be demanding innovation and an integrated omni-channel experience that enables them to shop from anywhere via their digital devices. Areas in which retailers can become leading innovators include the availability of products, delivery options and loyalty program categories. The On Solid Ground report by A.T. Kearney found that in the United States, physical stores continue to be the preferred shopping channel for many consumers as it is where the most value is created for consumers and they are able to touch and feel a product and immerse themselves in a brand experience (Global Retail E-Commerce Index, 2015).

To summarise: Digital and online technologies continue to disrupt the traditional retail industry with consumers across the world being more empowered and demanding. The global population is more connected and to benefit from this connectedness, consumers must know how to use the technologies available to them optimally. Retailers need to adapt and remain relevant, as the speed of technology adoption has increased the stakes for retailers. Increasingly, global retailers are willing to push physical and psychological boundaries and many are expanding into the South African market. Traditional South African retailers need to respond to the infiltration of international and online retailers if they want to remain competitive in the changing online shopping landscape. The following section, focuses on South Africa's response to the online shopping retail environment.

## **2.6 ONLINE SHOPPING IN SOUTH AFRICA**

The South African economy has characteristics of both a developed and developing economy with access to technology, sophisticated institutions, a strong private sector and fiscal resources, but at the same time, a large percentage of the South African population live below the poverty line with weak educational opportunities (Gillwald, Moyo & Stork, 2012). These irregularities are especially evident in the information and communications technology sector, as South Africa is characterised by the early adoption of advanced technology by high-income users and slow adoption patterns typical of a developing nation.

Online shopping in South Africa originated in 1996, but most economic indicators reflect that in South Africa, online shopping is still in its infancy compared to the rest of the world (E-commerce lags in South Africa, 2015). This claim is confirmed in the prediction that online sales will account for only 1% of retail sales in 2016 (E-commerce lags in South Africa, 2015). Although many researchers maintain that this figure will increase in the future, a question central to consumer research and to the current study remains 'Why do many younger South African consumers still refrain from shopping online, despite being technologically enabled to shop online?' This study aims to uncover the perceived risks that prevent Generation Y consumers from shopping online in South Africa.

To extend the notion that online shopping in South Africa is in its infancy, PwC's annual consumer survey states that South African consumers are prepared to visit and browse

an online store, but do not have confidence in the website to complete a purchase (PwC Total Retail: Retailers and the Age of Disruption, 2015). Thus, traditional brick-and-mortar stores still have a stronghold over online retail spaces in South Africa and online shopping is still seen as only a subset of in-store shopping (South African online shopping only 1% of retail sales, 2015).

A crucial effort in the success of online shopping in South African is that consumers need to be motivated to bridge the gap between browsing and purchasing online and therefore, online intention behaviour and online purchase behaviour. Many consumers browse online, but continue to prefer to purchase in-store. Mzoughi, Negra and Habcha (2012) termed this gap 'the intention-action gap' that has become a major concern for online retailers. The intention-action gap is the degree to which consumers follow-up on their original plan or deviate from this plan (Mzoughi *et al.*, 2012:90).

Despite the existence of this gap in the South African market, online shopping continues to grow with a 30% year-on-year growth rate reported in the retail industry since 2009 (White, 2016). This growth figure is almost four times that of physical stores, which reported a year-on-year growth rate of 7% in the retail industry. It is predicted that online shopping in South Africa will continue to rise as consumers become more familiar with the Internet and improved infrastructure, communications technology and online security drive consumers to shop online (Maqutu, 2013).

Evidently, Arthur Goldstruck, managing director of the research company World Wide Worx, predicts that local online sales in South Africa are set to top R9 billion in 2016 (South African online shopping only 1% of retail sales, 2015:1). This figure represents 1.03% of total retail sales in South Africa and although low, has been claimed to be a milestone for South African e-commerce. Goldstruck further reported that online shopping grew with 26% year-on-year in 2015 to reach a market size of R7.5 billion (South African online shopping only 1% of retail sales, 2015:1). Much of this growth can be attributed to a younger generation of consumers who are more comfortable with using the Internet than previous generations (White, 2016) and therefore, the current study focuses on Generation Y consumers in South Africa as a sample group.

The growing amount of Internet users, which was set to surpass 18 million in 2016, and smartphone usage reaching 23.5 million in 2015, are key factors driving the adoption of online shopping in South Africa (South African online shopping only 1% of retail sales, 2015:1). This is evident, because of the 5.2 million South African consumers who are able to shop online, only 3.2 million (60.8%) are already doing so. With such a high percentage of South African Internet users, the country has the second largest number of potential online shoppers on the African continent, after Nigeria (89%) (Study reveals that e-commerce is on the rise in South Africa, 2015:1). Staying on the African continent, a report by McKinsey & Company revealed that e-commerce is predicted to account for 10% of retail sales in Africa's largest economies by 2025 (Jooste, 2015:1). Online shopping is a growing phenomenon around the world and especially in countries with well-developed Internet infrastructures (De Swardt & Wagner, 2008). Although, online shopping in South Africa is growing slowly, the online retail market shows great potential.

### **2.6.1 The online shopping consumer market in South Africa**

While the typical online consumer could once be described as young and professional, the modern online consumer market represents a varied demographic and psychographic profile (Richa, 2012). According to the E-commerce Industry Report by IAB South Africa, Visa and Effective Measure (2016), that surveyed 12 000 Internet users, male consumers (51.38%) tend to spend money more easily online. The report states that female consumers (48.62%) generally prefer to touch and see a product before purchasing. Female consumers have also been found to experience higher levels of risk with online shopping. This finding is supported by Garbarino and Strahilevitz (2004), who conducted an earlier study amongst 260 university students, and found that female consumers perceived higher levels of risk with online purchasing than male consumers and are therefore more cautious of shopping online.

World Wide Worx also conducted research to describe the demographics of South African online consumers. Their findings report that consumers aged 25-34 accounted for 16.3% of online purchases in South Africa, while consumers aged 35-44 accounted for 15.6% of online purchases (South African online shopping only 1% of retail sales, 2015:1). Couples accounted for less online shopping (13.2%) than divorced or single consumers, who accounted for 18.9% of online purchases in South Africa.

The South African E-Commerce Report by IAB (2014) surveyed over 10 000 Internet users about their online consumer behaviour and uncovered key insights regarding online shopping in South Africa. The report describes the South African online community by investigating online shopping per province. Similar to Internet users, it was evident from the report that 45% of online consumers are based in Gauteng and that 22.6% of online consumers reside in the Western Cape (South African eCommerce Report, 2014). The report further shows that 9.23% of online consumers' monthly household income is above R70 000. In addition, four per cent of the surveyed consumer group conduct weekly online purchases and 16% shop online at least once per month. The figures show that few consumers make regular online purchases and supports the claim that online shopping is still in its infancy in South Africa.

For a market attempting to increase online shopping amongst consumers, it is promising to note that according to a survey commissioned by Ipsos, the majority of South African online consumers (58%) purchase only from local online retailers, while 37% purchase from local and international online retailers and 5% purchase only from international online retailers (Alfreds, 2016). Many retailers in South Africa have an online presence in addition to their stores and there has been major progression in the South African online retail platform (White, 2016). Online retailers such as Amazon, Takealot.com and Superbalist have become household names as consumers become more comfortable with online shopping (Maqutu, 2013). Significant online retail developments in South Africa include the launch of Spree and Mr. Price Online, as well as the merger between Khalahari.com and Takealot.com in 2015 (White, 2016).

According to a report by Euromonitor International (2017), the leading online retailers in South Africa include Takealot.com with a market share of 12.5%, followed by Apple's App Store with a market share of 5.5%. In addition to this, the report also identified Takealot.com, Pick n Pay, Woolworths and Amazon as the five online retailers that South African consumers are most aware of (Internet Retailing in South Africa, 2017).

Although international online shopping is currently less popular among South African consumers, the increasing variety of products, larger price ranges, improved shipping options and increasing consumer confidence in e-commerce are predicted to encourage South African consumers to purchase online, irrespective of physical borders (Alfreds, 2016). Consumers reportedly shop from other countries, such as the

United States, United Kingdom and China, due to lower prices and certain products not being available in South Africa (Massive increase in mobile spend by SA shoppers predicted, 2015).

As mentioned previously (see section 2.4), it is important to identify the type of product purchased online as consumer behaviour is expected to differ for various products. For example, consumers could perceive more risk when purchasing certain product types online. Therefore, the current study distinguishes between product categories and measures the effect of perceived risk on purchase and repurchase intent for clothing and books.

There is only partial consensus as to the product categories that are most commonly purchased online by South African consumers. The article titled 'South African online shopping only 1% of retail sales' (2015) indicates that the most commonly purchased product categories are music/videos together with business purchases (3.6% respectively), followed by gifts (2.8%), clothing (2.6%) and software products (2.4%). In addition, the '8 key insights that will drive changes in online and in-store retail' (2016) report, lists books, music and movies as products most often bought online. A report by Ipsos indicates that digital goods (e.g. e-books and applications), event tickets, travel, fashion and electronics (e.g. tablets) are the most popular product categories purchased online by South Africans (Study reveals that e-commerce is on the rise in South Africa, 2015). These South African findings share similarities with global trends, where consumer electronics and digital goods are the top product categories for online purchases (Massive increase in mobile spend by SA shoppers predicted, 2015).

For online shopping to become successful in South Africa, online retailers must facilitate consumers to feel more comfortable with the process of online shopping and assist consumers in enjoying online shopping (What is slowing down the growth of e-commerce in South Africa, 2015). Focusing on the user experience will encourage younger 'tech-savvy' consumers to adopt online shopping. The online environment has changed and obstacles still exist, but introducing an online platform in modern times is easier than ever before. However, despite the increasing ease of creating an online presence, many South African websites are still not on the same standard as international online retailers. Many low budget shopping websites do not focus on creating an enjoyable consumer experience, but instead focus on saving money (E-

commerce lags in South Africa, 2015). An online user experience that retailers need to focus on to promote the growth of online shopping, is the growing mobile platform in South Africa.

### **2.6.2 Mobile commerce in South Africa**

A common conceptualisation of mobile commerce is 'any direct or indirect transaction that has potential monetary value and is conducted through wireless technology' (Dlodlo & Mafini, 2013:2). The predicted increase of online shopping amongst South Africans discussed earlier can also be attributed to the rise of online shopping conducted through smartphones (Alfreds, 2016). South Africa's highly developed telecommunications network, Internet penetration rate of 17% and smartphone penetration rate of 37% represents a population that is becoming more comfortable with technology (Jooste, 2015:1).

On the African continent, South Africa has the largest number of adults who own a smartphone (Rahman & Shaban, 2016). For 2017, it was predicted that the number of smartphone users in South African would reach 6.1 million (Statistica, 2016). Smartphones are making online shopping more convenient for consumers and 70% of consumers, who own smartphones, reportedly use their smartphones to shop from their home or office (Study reveals that e-commerce is on the rise in South Africa, 2015). A common trend, reported by 94% of mobile consumers in South Africa, is using smartphones to search for information about products and retailers and 62% of consumers use their smartphones to compare the prices of products (Study reveals that e-commerce is on the rise in South Africa, 2015).

Crucial to information search on smartphones, is the ability of phones to provide and display product information appropriately. With regards to browser preference, 45% of smartphone consumers prefer to make online purchases through the use of an application (e.g. the Superbalist app), while 26% of smartphone consumers prefer using a mobile browser (e.g. Safari on iPhone) (Study reveals that e-commerce is on the rise in South Africa, 2015:1).

To benefit from the growing mobile commerce landscape, major brands such as, Mango, Bidorbuy, Computicket and Ster-Kinekor, have stepped up their mobile commerce efforts to encourage mobile shopping among their consumers (The growth

of online shopping in SA, 2013). For example, Ster-Kinekor offers consumers the option of viewing movie trailers on their phones or purchasing movie tickets from home via a mobile application.

Online spending by South Africans, through smartphones, was forecasted to grow by 70% in 2016 (Alfreds, 2016). According to the survey by Ipsos, this figure is predicted to outpace overall online spending in South Africa, forecasted to grow by 29% in 2016. This forecast indicates a substantial growth in mobile commerce. Online spending, through smartphones, also accounted for only 25% of all online transactions in 2015 and South African consumers spent R28.8 billion online in 2015 (Alfreds, 2016). The online expenditure figure of R28.8 billion was predicted to grow to R46 billion in 2016, of which mobile was predicted to account for R19 billion (Alfreds, 2016).

The growth of mobile shopping in South Africa has been fuelled further by the uptake of electronic tablets amongst consumers (Tablets driving online shopping, 2012). A study in 2012 by the South African Press Association (SAPA) reported that more than 70% of tablet owners used their devices to shop online, mostly for electronic books, music and flight tickets. Tablets are portable and have become a more tactile and convenient way for consumers to access the Internet, due to their touch screens and innate interfaces. Liz Hillcock, former head of marketing at Khalahari, confirmed that with the growing number of tablets and mobile phones amongst consumers, South Africans are becoming more comfortable and confident with online shopping (Tablets driving online shopping, 2012).

Although positive figures are predicted for mobile shopping, barriers to mobile shopping exist, including non-mobile friendly shopping experiences and security concerns. The cost of data for smartphones in South Africa is another major barrier that inhibits mobile shopping (What is slowing down the growth of e-commerce in South Africa, 2015). Despite these barriers, there is no doubt that the rapid penetration of smartphones in South Africa is a major driving force behind online shopping and will continue to be in the coming years.

As the Internet and opportunities for online shopping grow at a rapid pace internationally, investigating this phenomenon within the South African context is crucial (De Swardt & Wagner, 2008). Typical of developing trends is the absence of

existing research, and few studies have been conducted to examine the factors that entice and prevent technologically enabled Generation Y South Africans from fully adopting this modern shopping channel. To address this gap in literature, the current study will focus on South African Generation Y consumers and specifically possible reasons for the slow adoption of online shopping amongst this consumer group.

## **2.7 CONCLUSION: CHAPTER TWO**

The evolution of online shopping has allowed it to become a vital aspect of consumer behaviour and marketing strategies, driving the need for theories and models of online consumer behaviour (Pappas, 2016). As the Internet is a fast-changing environment and consumer behaviour will change accordingly, it is imperative that the factors influencing online shopping be identified. Previous research has pinpointed the long-term success for online retailers in overcoming the perceived risks associated with online shopping (Pappas, 2016). Thus, it is important to examine the risk factors that affect online shopping in South Africa, whilst measuring the online purchase and repurchase intent of consumers.

In conclusion, the first chapter of the literature review in the current study, highlights that online shopping is a growing phenomenon, but despite the advancements in technology and changes in global consumer behaviour, many South African consumers still refrain from shopping online. Of particular interest to the current study is Generation Y consumers in South Africa who are comfortable with technology and who are prone to use technology in most aspects of their lives. The following chapter will attempt to further uncover reasons as to why younger Generation Y consumers in South Africa are not fully adopting online shopping channels. The emphasis is on perceived risks associated with online shopping and the effect of perceived risk on online purchase and repurchase intent.

## CHAPTER 3

### CONSUMER BEHAVIOUR AND RISK PERCEPTION

#### 3.1 INTRODUCTION

Marketing research continuously emphasises the centrality of consumers in all consumption activities and the necessity for marketers to have a thorough understanding and knowledge of the factors that influence consumers' decisions (Mandhlazi, Dhurup & Mafini, 2013). Consumption forms a part of the everyday lives of most consumers and determines how consumers behave and make decisions.

This chapter analyses online consumer behaviour and specifically, the online consumer behaviour of South African Generation Y consumers, in terms of perceived risk and how perceived risk affects the online purchase and repurchase intent of this consumer group.

#### 3.2 CONSUMER BEHAVIOUR

The predominant approach used to explain the fundamentals of consumer behaviour is to focus on the consumer buying process as a learning, information-searching and decision-making process, divided into several steps. Kotler and Keller (2011) consider the consumer buying process to be a process whereby inputs and their use or actions lead to the satisfaction of consumer needs and wants.

The Engel-Kollat-Blackwell (EKB) model of consumer behaviour describes the consumer decision-making process as consisting of problem recognition, information search, alternative evaluation, purchase decision and purchase behaviour, influenced by internal and external factors (Darley *et al.*, 2010; Engel, Kollat and Blackwell, 2011). Consumers are influenced by information received and the methods used to process information during the purchase decision-making process. While many researchers have argued that there are no fundamental differences between traditional and online buying behaviour, the contrary proposes an additional step in the online buying process, namely building confidence with the purchase process. For online shopping to be successful, it is important that consumers are confident in the retailer and online shopping process and perceive minimal risk.

### 3.2.1 Online consumer behaviour

To establish an online presence, retailers need to understand exactly who their consumers are, what their spending patterns look like and which products they prefer. Similar to business operations, consumption habits have undergone major changes (Richa, 2012) and researchers and academics agree that demographic, social, economic and cultural changes in the past, beyond the control of retailers, have had a significant effect on consumer behaviour (Constantinides, 2004).

Cheung, Zhu, Kwong, Chan and Limayem (2003) make an important contribution in classifying the amount of research papers regarding consumer behaviour and propose a framework to explain consumers' decision to purchase. The authors identify two groups of *uncontrollable factors* and three groups of *controllable factors* that underpin the online buying process. The authors regard consumer and environmental characteristics as uncontrollable by the consumer, whereas product, medium and merchant characteristics are regarded as controllable factors.

Consumer characteristics refer to factors individual to a consumer, for example demographics, values and behavioural characteristics, whereas environmental characteristics include social influences and mass media. To elaborate on the three groups of controllable factors that affect online consumer behaviour, Cheung et al. (2003) describe product characteristics as knowledge about the product, product type and price. Medium characteristics refer to web-specific characteristics, such as ease of navigation, interface and network speed. Lastly, merchant characteristics include factors such as service quality, privacy and reputation of the online retailer.

A consumer's decision to purchase or repurchase online is also affected by the online shopping experience. Based on research by Tamini, Rajan and Sebastianelli (2003), Chandra and Sinha (2013:165) define the online shopping experience as a process of four stages (home page, product catalogue, order form and customer service), embracing elements such as searching, finding, browsing, selecting, comparing and interacting with the online retailer. Thus, the online experience is arguably more complicated than the physical shopping experience, considering that the consumer is not only a shopper, but also an information technology user (Wu, 2013).

For traditional retailers expanding their business onto an online platform, their online experience requires special attention. Many consumers easily change their perception of an online retailer due to adverse experiences, which often leads to complaint behaviour, critical to consumer loyalty and retention. Taking into account that it is five to eight times more expensive to acquire a new consumer than to retain an existing consumer (Wu, 2013), the online experience remains critical. The consumer's impression of the online experience can be influenced by design, emotions and atmosphere during interaction with the website. Such elements are meant to induce consumer goodwill and loyalty and affect the final online purchase decision of the consumer (Constantinides, 2004). The online purchase decision of a consumer is outlined further in the following sections by focusing on consumers who are new to online shopping and their motivation to shop online.

### **3.2.2 Online consumers**

Compared to offline shoppers, online shoppers have been found to be more willing to innovate and take risks and are generally more impulsive (Dobre & Milovan-Ciuta, 2015). According to Virvalaite, Saladiene and Bagdonaite (2015), the likelihood of engaging in online shopping is positively correlated to compulsive behaviour and limited self-regulating ability of a consumer. Furthermore, features of the Internet and online shopping, such as visual sensory stimulation being available at all times, could weaken self-regulation amongst consumers (Pontes, Caplan & Griffiths, 2016) and the instantly available online stores fulfil shopping urges when and where they occur. La Rose (2001) has also argued that these features of online shopping could be a more important determinant of online consumer behaviour than the rational economic or personal characteristics, such as cost and convenience in the online shopping environment.

Another determinant of online consumer behaviour is involvement and experience with online shopping. In the current study, two groups are identified namely; experienced online consumers (those who have made purchases online) and inexperienced online consumers (those who have likely browsed online for products on the Internet, but have not made purchases). The distinction is made to investigate online purchase intent and online repurchase intent, as it is expected that risk perception will differ based on previous experience with online shopping. Experience with previous

purchases has a significant effect on future purchase behaviour (Foscht *et al.*, 2013). The current study makes a distinction between experienced online consumers and inexperienced online consumers to investigate the effect of perceived risk on online purchase intent or repurchase intent for both consumer groups.

The advancement of online shopping has made sufficient samples of experienced online consumers available for research (Hernandez *et al.*, 2011). Experienced online shoppers are consumers who often make purchases online, who are familiar with the characteristics of this retail channel and who have previously been found to display different buying behaviours from inexperienced online consumers (Hernandez *et al.*, 2011). Although experienced online consumers perceive risks when shopping online, these risks may not significantly affect Internet patronage behaviours.

Consumers who do not have previous experience with online shopping are termed 'new users.' Such consumers are often found to be more involved in the online purchase process and expected to perceive more risk with online shopping, whereas experienced online consumers have used online shopping channels successfully and know that it is safe and easy to use. Inexperienced online consumers are assumed to be more sensitive to the risks associated with online shopping. Hence perceived risk is predicted to have a greater influence on the potential online patronage behaviours of inexperienced online consumers than that of experienced online consumers.

The current study addresses this prediction by focusing on perceived risk as a barrier to online shopping to specifically address the research question 'Why do technologically enabled Generation Y consumers in South Africa refrain from shopping online?' In contrast to this, a large part of existing online consumer research focuses on the motivation of consumers to shop online.

### **3.2.3 Motivation for shopping online**

For experienced online consumers, as well as inexperienced online consumers, two motives are prevalent. Consumers are motivated to make online purchases either for convenience (utilitarian) or enjoyment (hedonic) reasons (Sarkar, 2011). Where utilitarian shopping refers to the functional aspects of shopping, hedonic shopping is derived from the perceived enjoyment of the shopping experience. Utilitarian shopping regards the consumer as a problem-solver and includes convenience-seeking, variety-

seeking and price consciousness behaviour. Hedonic consumption behaviour, however, involves the emotional arousal that takes place while shopping and refers to the need that consumers have for an enjoyable and interesting shopping experience (Sarkar, 2011).

Although limited research has been conducted to explore hedonic consumption, findings indicate that it varies across products and that for high involvement products, the level of hedonism is higher (Sarkar, 2011). For regular online consumers, it is expected that the perceived benefits, either hedonic or utilitarian, are greater than the perceived risk and it would therefore not deter them from purchasing online.

Forsythe, Liu, Shannon & Gardner (2006) developed a scale, based on Churchill's (1979) accepted paradigm for scale development, to measure the perceived risks and benefits of online shopping. The scale indicated that convenience, ease of shopping and product selection accounted for a larger variance in explaining the perceived utilitarian benefits of online shopping, compared to the perceived hedonic benefits of online shopping. From this study, it can be inferred that consumers with higher utilitarian shopping motives will be more likely to perceive benefits from online shopping, in comparison to consumers with low utilitarian shopping motives (Sarkar, 2011).

Nepomuceno, Laroche and Richard (2014) argue that despite the increasing popularity of online shopping, perceived risks still prevent many consumers from engaging in this shopping channel and researchers should continue to investigate the concept of perceived risk within this context. A consumer group of particular interest in this regard is the Generation Y consumer cohort, as these consumers are aware of the benefits that online shopping and other Internet technologies offer, yet online shopping continues to grow at a slow pace in South Africa, compared to other nations (The truth about online consumers, 2017). The following sections will focus on Generation Y consumers, perceived risk and purchase intent.

### **3.3 GENERATION Y**

The concept of generational theory will be discussed in the subsequent section and arguments for and against the use of generational theory are presented with a specific focus on Generation Y in South Africa.

### 3.3.1 Generational theory

When marketers find homogenous groups, who share similarities, they can offer the same product, distribution channels and communication to a large number of consumers likely to react in a similar way (Parment, 2013). Dlodlo & Mafini (2013) argue that age can be a useful tool when identifying trends and behaviours among individuals and consumer groups. Generational theory focuses on parallels and shared experiences within age groups, which allows for the identification of similarities and differences among consumers in the same age group (Berkowitz & Schewe, 2011).

Generational theory posits that consumer behaviour is not only shaped by age, but also by the social context in which consumers are raised and transformed into adulthood (Berkowitz & Schewe, 2011). Thus, generation theorists, such as Gurau (2012), postulate that changes in the macro-environment affect consumers born into that specific time period, forging specific consumption behaviour.

According to Parment (2013), generational cohorts are comprised of members who are born during a certain time period and whose life experiences correspond to each other. The segmentation of consumers into generational cohorts is based on the argument that each generation shares experiences during their formative years, brought on by environmental factors, that shape the behaviour of members and distinguishes members from those of previous generations (Twenge & Cambell, 2008).

The life experiences of a generational cohort can therefore influence the values, preferences and consumer behaviour of its members (Parment, 2013). For example, members within the Generation Y cohort share the lifelong exposure to smartphones, television and multimedia technologies that had a significant impact on their upbringing and how they interact with technology (Twenge & Cambell, 2008). The technology-rich world has given Generation Y consumers constant access to instantaneous news updates and social media, not experienced by older consumers born into previous generations. These experiences provide a basis for using Generation Y consumers as a sample group in the current study.

It should be noted that not all researchers support generational theory. For example, Costanza and Finkelstein (2015) criticise generational theory as being opportunistic and lacking depth. One of the main reasons for this criticism is that generational theory

overestimates the similarities between generations worldwide and ignores different cultural upbringings (Yelkur, 2002). Generational research has further been criticised as being based on stereotypes with insufficient evidence. Parry and Urwin (2011) have also contended for intergenerational differences that cannot be ignored.

Furthermore, sociologist Karl Mannheim's theory (1952) argues that the context which a generation experiences in its formative years, serves as a basis for the emergence of a shared way of dealing with the world. Mannheim further posits that each country experiences its own political, cultural and socio-economic events, which have profoundly different effects on consumers (Mannheim, 1952). For example, many young South Africans face challenges, such as leaving rural township areas, not known to young consumers in other countries. Marketers cannot superimpose the generational configuration of one society onto another and consumers across the world cannot be segmented only according to the generation in which they were born.

For the purpose of this research, the generational approach is justified as it is used as a descriptive term for a market segment based on age (that is often used in marketing studies to refer to a young group of consumers/individuals) and to describe the technological environment (not prevalent in other generations, for example Generation X) in which they grew up. The current study focuses on Generation Y consumers, because of the size of the group, their increasing spending power and their being accustomed to a technology-rich world. However, no attempt is made to compare different generations to each other, nor are generations compared across countries.

### **3.3.2 Generation Y characteristics and behaviours**

Generation Y consumers are a significant force in the global market, because of the size of the group and their increasing purchasing power. Differing opinions, however, exist on the definition of the Generation Y cohort (Bolton, Parasuraman, Hoefnagels, Migchels, Kabadayi, Gruber, Loureiro, Solnet, 2013). Baby Boomers have been said to include individuals born between 1946 and 1964 and Generation X, individuals between 1965 and 1979 therefore, making the birth date of Generation Y between 1980 and 2000 (Bevan-Dye *et al.*, 2012). For the purpose of the current study, the Generation Y cohort, often termed Millennials, is defined as consumers born between 1980 and 2000, although some researchers argue that Generation Y include only those born between 1980 and 1994 (Schiffman, Kanuk & Wisenblit, 2010).

In agreement with Mannheim's theory, Dicey (2016) posits that Generation Y consumers in South Africa are different to Generation Y consumers in other countries and that they have unique traits. South African Generation Ys are the first group to have grown up in the post-Apartheid era (post 1994) and the first of their families to attend multi-racial schools, (Mandhlazi *et al.*, 2013) contributing to their openness to diversity and effortless interaction with people of all cultures.

The behaviour of Generation Y consumers is distinguishable from previous generations and retailers need to understand how to target these younger consumers appropriately (Hershatter & Epstein, 2010). For example, Generation Y consumers maintain high levels of social interaction and are often willing to pay a premium for brands with an image similar to themselves (e.g. Converse shoes expresses an image of individuality, rebellion and being care free) (Ave, Venter & Mhlophe, 2015). Generation Y consumers have grown up in a world filled with brands and consumerism and have developed shopping habits from an early age. Furthermore, they are more connected to the rest of the world than previous generations, due to the increase of globalisation during their coming of age (Bevan-Dye *et al.*, 2012). They also demand instant gratification, have higher levels of self-esteem, are less in need of social approval and are more adamant about being treated as an individual (Twenge & Cambell, 2008). The behavioural differences between Generation Y and previous generations extend from a shift in values of Generation Y members that is predicated to remain stable throughout their lifetime (Hyllegard, Yan, Ogle & Attman, 2011).

Compared to older generations, Generation Y consumers seem to put less effort into low involvement decisions, for example electricity purchases, and more effort into high involvement product decisions, for example fashion purchases. They are interested and involved in clothing purchases (in comparison to Baby Boomers who optimise clothing purchase decisions), are aware of fashion trends and are generally brand conscious (Parment, 2013; Ave *et al.*, 2015). The choice of clothing by Generation Y consumers is influenced by a number of factors such as, individuality, functionality, social influences and other psychological variables (Fernandez, 2009). Research by Fernandez (2009) further states that an increase in available fashion brand names, has led Generation Y consumers to be more aware of the various clothing brands and form brand preferences at an early age.

In agreement with Peterson (2004), Twenge and Cambell (2008) also found that Generation Y consumers dislike being advertised to as a collective and depend more on interpersonal opinions and word-of-mouth information when making purchase decisions. The members of this generational cohort are further described in literature as well-educated, 'tech-savvy', sophisticated, having a strong sense of identity (Valentine & Powers, 2013) and are generally known to be confident, optimistic and open to new experiences (Mandhlazi *et al.*, 2013). They shop more often and are known to receive generous discretionary income or allowances from their parents, which increases their motivation to consume for status (Ave *et al.*, 2015). Furthermore, members of the Generation Y cohort pay close attention to the marketing messages of retailers (Valentine & Powers, 2013; Ave *et al.*, 2015); they desire distinctive brands with traits that can assist in their self-expression and as a result, spend money easily on consumer goods and personal services that will enhance their identities (Rosenburg, 2008).

Typically, members of Generation Y have also been seen to place emphasis on work-life balance and are independent and responsible in their everyday lives (Valentine & Powers, 2013). The independence of Generation Y results in a less brand loyal consumer group and an increased scepticism of traditional media (Valentine & Powers, 2013). Martin and Turley (2004:464) describe Generation Y as a 'free spending but hard to reach' generation. Younger consumers do not like being manipulated by standard, mass-marketing attempts and as such, are attracted more to blogs, reviews and social networks (and less to media channels such as television) and regularly engage with social platforms to express their interests and opinions (Fernandez, 2009). (Hershatter & Epstein, 2010). Table 3.1 provides a summary of general distinctive characteristics of Generation Y consumers.

**Table 3.1 Summary of Generation Y characteristics and behaviours**

Description	Reference
Higher levels of social interaction Often willing to pay a premium for brands with a similar image to themselves	Ave, Venter & Mhlophe, 2015.
Well-travelled	Bevan-Dye, Garnett & de Klerk, 2012.
Demand instant gratification Have higher levels of self-esteem Less in need of social approval More adamant about being treated as an individual	Twenge & Cambell, 2008.
Dislike being advertised to as a collective Depend more on interpersonal opinions and word-of-mouth information when making purchase decisions.	Peterson, 2004.
Well educated 'Tech-savvy' and sophisticated Strong sense of identity Pay close attention to the marketing messages of retailers Place emphasis on work-life balance Independent and responsible in their everyday lives Less brand loyal Increased scepticism of traditional media	Valentine & Powers, 2013.
Confident, optimistic and open to new experiences	Mandhlazi, Dhurup & Mafini, 2013.
Do not like being manipulated by marketing attempts Attracted more to blogs, reviews and social networks and less to media channels such as television More aware of the various clothing brands Form brand preferences at an early age	Fernandez, 2009.
Have a natural liking towards shopping and are likely to shop impulsively given their purchasing power and large amount of time spent shopping	Pentecost & Andrews, 2010.

Valentine and Powers (2013) posit that shopping does offer different value for Generation Y consumers as they have grown up in an era where shopping is a form of entertainment, instead of only a routine task (Valentine & Powers, 2013). It can therefore be said that Generation Y consumers get more hedonic value from shopping than previous generations. These younger consumers seem to have a natural liking towards shopping and are likely to shop impulsively, given their purchasing power and large amount of time spent shopping (Pentecost & Andrews, 2010).

### 3.3.3 Generation Y and online shopping

Because Generation Y consumers generally dedicate a large portion of their time to shopping, it is crucial for online retailers to capture this market. Similar to consumers of older generations, Generation Y consumers hesitate to shop online because of distrust with online retailers (Muda, Mohd & Hassan, 2016). The Cisco Connected World Technology report (2012) found similar results for the South African market, where four out of five Generation Y consumers stated that they do not trust online websites to keep their personal information secure. Other reasons include the inability to physically examine a product before purchase and security concerns regarding online payments.

Generation Y consumers are expected to prefer shopping online, because of their familiarity with technology, but although Generation Y accounted for approximately 38% of the South African population in 2013 (Statistics South Africa, 2013), online shopping remains under-developed in South Africa. Despite the increase in Internet usage and penetration in South Africa, online sales accounted for only 0.8% of retail sales in 2014 (Lee & Barnes, 2016).

Given the size and profile of Generation Y consumers, it is clear that this consumer cohort has a profound impact on the retail industry in South Africa (Kim & Ammeter, 2008). As many Generation Y consumers complete their education and enter the workforce, they form spending habits and make purchase decisions independent of their parents. The increasing purchase power and technology expertise of this generation will therefore have an impact on the future success of online retailing (Valentine & Powers, 2013).

This statement confirms the need that exists for research regarding the technology usage of younger consumers to uncover reasons as to why online shopping in South Africa is still in its infancy. Understanding the consumption tendencies of Generation Y consumers is crucial to create and maintain relationships between these consumers and the products they desire (Kim & Jang, 2013). With a good understanding of the Generation Y market, online retailers are able to develop effective and targeted business operations that meet the requirements and expectations of their younger online consumers (Lee *et al.*, 2011). How these consumers perceive risk and how

perceived risk affects their purchase decisions, could shed further light on this research question.

### **3.4 PERCEIVED RISK**

One of the key elements of consumer behaviour that has been found to be prevalent in most purchase decisions, and even more so in the online shopping context, is risk (Pappas, 2016). Since the 1960s, the theory of perceived risk has been used to explain consumer behaviour (Forsythe & Shi, 2003) as consumers are mostly apprehensive when they are unsure whether a purchase will assist them in achieving their purchase goals.

Bauer proposed the concept of perceived risk in 1960, initiating a considerable amount of research on the influence that perceived risk has on consumer purchase intentions. Bauer defined perceived risk as 'the unpredictable results that consumers perceive when they engage in purchasing behaviour; these results may have a negative influence on the consumer' (Hsieh & Tsao, 2014:243). Since Bauer first introduced the concept of perceived risk, the subject has continued to receive attention from academia.

Cunningham's seminal work from 1967 defines perceived risk as 'the amount that would be lost if the consequences of an act were not favourable, and the individual's subjective feelings of uncertainty that the consequences will be unfavourable' (Mitchell, 1999:167). Mitchell (1999) supports the two-factor view of Cunningham to describe perceived risk as having two components, namely: the uncertainty of a loss and the subjective feeling of unfavourable consequences. Uncertainty is related to the buying goals of a consumer and consequences are linked to the money, time and effort invested in the buying goals of a consumer (Huang *et al.*, 2004). The two-dimensional view of perceived risk can thus be considered a function of the uncertainty about the outcome of a behaviour and the potential unpleasantness of such outcomes.

At the same time, Cox (1967:172) also presented findings to support the two-dimensional view of perceived risk by Cunningham and defined perceived risk as 'adverse consequences that occur when consumers are unable to identify the purchase method best able to achieve their objective or are worried that the product will not meet expectations after they purchase it.' It is evident from the definitions that

perceived risk comprises of two dimensions: the probability of a loss resulting from behaviour and the importance attributed to such loss (Cox, 1967).

When shopping online, a consumer cannot touch or interact with the product and therefore, hedonic value is limited. It could be postulated that Generation Y consumers, with hedonic shopping motives, may prefer traditional shopping contexts. However, contradictory to this notion, Sarkar (2011) has shown that major types of perceived risks are primarily utilitarian in nature and related to time and cost. It is therefore also likely that a consumer with high levels of utilitarian motives may perceive higher risks from online shopping.

Risk-relieving strategies refer to actions designed to resolve problems, alter negative attitudes and retain consumers (Lioa & Keng, 2013). Such strategies can be divided into tangible and psychological strategies. Tangible recovery strategies offer consumers compensation for damages incurred, such as refunds, gifts and discounts, while psychological recovery strategies attempt to amend a situation by showing concern for a consumer's needs, such as acknowledging an error and apologising for the error (Chang & Wang, 2012).

Despite previous studies having made advancements in the understanding of online consumer behaviour, many studies, such as those conducted by Miyazaki and Fernandez (2001), Bhatnagar et al. (2000), Park et al. (2005) and Cunningham et al. (2005), have measured general perceptions of risk towards online shopping and ignored the possibility that risk may differ between individuals and products (Coker *et al.*, 2011). For example, a consumer may claim that the Internet is a risky place to shop, but frequently purchase books or airplane tickets online. It is evident that perceived risk is an important factor that has to be taken into account when studying online shopping behaviour and forms the basis for the current study. The role of product type in online shopping will be eluded to further in the following paragraphs.

Research by Coker et al. (2011) supports the notion that perceived risk differs for various product types and asserts that if researchers aim to measure perceived risk, it is imperative that perceived risk be measured at product level. A consumer's intention to purchase certain products online may vary and therefore, predicting general online purchase intentions may be of limited use. Pappas (2016) supports this notion and

states that consumers perceive various levels of risk during online shopping, depending on the level of intangibility of the product, with services thought to be riskier online purchases than goods.

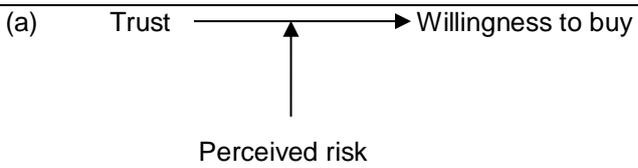
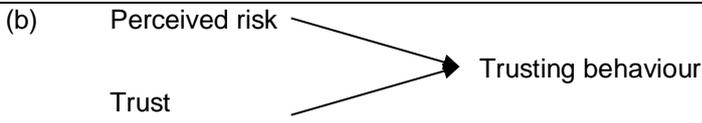
It is crucial for marketers to understand perceived risk as it helps them to see the brand or product through the eyes of consumers. Perceived risk is significant in explaining consumers' behaviour as consumers are often more motivated to avoid losses than to maximise gains (Mitchell, 1999). Although perceived risk is identified in the current study as a major determinant of consumer behaviour, an interwoven relationship between perceived risk and trust exists (Lim, 2003).

#### **3.4.1 The relationship between perceived risk and trust**

Perceived risk is an important variable in online shopping and more so due to the relationship between perceived risk and trust. This relationship is well recognised however, there is much debate in literature regarding the nature of the relationship. (Lim, 2003).

Stewart (1999) studied the effect of perceived risk and trust on consumers' willingness to purchase online. Her research views perceived risk as a moderating factor on the relationship between trust and willingness to purchase online. Another view on the relationship between perceived risk and trust is that willingness to purchase depends on a balance between perceived risk and trust. If the level of trust is higher than the level of risk perceived, then the consumer will be willing to purchase online (Kim & Prabhakar, 2000). An alternative view, by Cheung and Lee (2000), suggests that trust in online retailers is affected by perceived security control, privacy control, integrity and competence. They consider trust to be an antecedent of perceived risk. Mayer, Davis and Schoorman (1995) hold the opposing view that perceived risk is an antecedent of trust and that the relationship between the two is non-recursive. Figure 3.1 illustrates the various views on the relationship between trust and perceived risk.

**Figure 3.1 Differing views of the relationship between perceived risk and trust**

Case	Description	Reference
(a)	 <p>Trust → Willingness to buy ↑ Perceived risk</p>	Stewart (1999)
(b)	 <p>Perceived risk → Trusting behaviour Trust → Trusting behaviour</p>	Kim & Prabhakar (2000)
(c)	 <p>Trust → Perceived risk</p>	Cheung & Lee (2001)
(d)	 <p>Perceived risk ↔ Trust</p>	Mitchell (1999)

(Source: Lim, 2003:217)

By definition, trust is the more restrictive concept, because it has to involve two parties: the trustor as well as the trustee (Mayer *et al.*, 1995). According to Lim (2003), although consumers can perceive risk in online retailers and Internet technologies, they can only trust or distrust online retailers, not Internet technologies. As technology and human factors are prominent factors for the growth of online shopping, the current study focuses on the online risk perceptions of Generation Y consumers in South Africa.

### 3.4.2 Perceived risk in the online environment

Online shopping is particularly vulnerable to the core elements of perceived risk namely; uncertainty and unfavourable consequences. Despite the fact that online shopping offers various advantages, aspects of the Internet make underlying uncertainties more prominent (Hsieh & Tsao, 2014). Consumers generally perceive more risks when shopping online compared to traditional shopping methods for three reasons: the product cannot be examined before purchase, the after-sales service is uncertain and the language of the Internet may be misunderstood (Hong & Yi, 2012).

Perceived risk could hinder the use of online shopping as consumers are reluctant to complete online transactions, due to the fear of online risks and may be motivated to switch back to brick-and-mortar stores (Persad & Padayachee, 2015). Furthermore, perceived risk acts as a barrier to successful online transactions as consumers consciously and unconsciously perceive risk when judging products online (Meng-Hsiang *et al.*, 2014). Because consumers generally perceive greater risks with online

shopping, consumers with less risk aversion will prefer to shop online (Hsieh & Tsao, 2014). In other words, the intention of consumers to shop online is influenced by their individual risk tolerance.

Perceived risk not only has a negative effect on consumers' attitude towards online shopping, but also exerts a negative influence on their willingness to shop online (Hsieh & Tsao, 2014). Because most consumers make a comprehensive evaluation of the perceived benefits, costs and risks associated with any purchase, perceived risk can have a significant influence on consumer willingness to purchase online (Hsieh & Tsao, 2014). In the online shopping environment, consumers experience features of uncertainty, insecurity and a lack of control (Kaur & Quareshi, 2015) leading to the proposition of Kothandaraman and Wilson (2001) that the ideal online purchase is one that is highly beneficial for the consumer and offers low risk.

Many researchers, such as Chang, Cheung and Lai (2005), have classified factors that influence consumers' online shopping intention and have found risk to be one of the most extensively investigated constructs. However, inconsistencies exist as several studies report a negative relationship between perceived risk and purchase intent, while others, such as Liao and Cheung (2001), found no such link. These inconsistencies may be due to the difference between examining overall perceived risk versus a more delineated conceptualisation of the risk construct by only focusing on one dimension of risk, for example financial risk.

Because the behaviour of Generation Y consumers could be distinguished from previous generations' behaviour (Hershatler & Epstein, 2010), the current study examines the relationship between five dimensions of perceived risk and online patronage behaviours for South African Generation Y online consumers. Five dimensions of perceived risk are investigated as potential barriers to online shopping. The examination of the impact of the dimensions of perceived risk on online purchase and repurchase intent may shed greater insight on the role of perceived risk in the online consumer purchase process.

### 3.4.3 Dimensions of perceived risk

A review of previous studies confirms that perceived risk is multidimensional and has six dimensions namely: financial risk, psychological risk, performance risk, time risk, social risk and physical risk (Jacoby & Kaplan, 1972). As mentioned previously, for the purpose of this study, physical risk has been excluded as the possibility that online shopping is harmful to the individual's health is unlikely. The remaining five dimensions of perceived risk and few risk-relieving strategies that are relevant to online shopping are explained further in the following sections.

#### 3.4.3.1 Financial risk

Financial risk is often termed 'economic risk' and is defined as the 'likelihood of suffering a financial loss due to any hidden costs or replacement costs due to the lack of warranty or a faulty product (Kiang, Ye, Hao, Chem & Li, 2011:31). Price is the product element that has been reported to critically determine a consumer's purchase decision and as the monetary value of a product increases, so does the perceived financial risk associated with the purchase (Pappas, 2016). When using the Internet to purchase products, the fundamental financial risk that consumers perceive, is often said to be related to security and privacy concerns (Pantano, 2014).

Privacy and security concerns are important and assist in explaining consumers' resistance to online shopping. Consumers who believe that their online transactions are susceptible to fraud will be less likely to purchase online (Nepomuceno *et al.*, 2014). Concerns of consumers include the safety of their personal information, the overall transaction security and the misuse of private consumer data. These concerns are fuelled by media headlines on related subjects, such as hacking, fraud and online scams, that raise scepticism about online shopping (Constantinides, 2004). Furthermore, the high concern for security combined with the intangibility of online shopping, increases the perceived financial risk of consumers and decreases the probability that a consumer will shop online.

Concerns regarding security aspects increase the reluctance of consumers to pay online. According to the South African E-Commerce Report (2014:3), by IAB South Africa, 66.68% of online consumers use credit cards for online payments as the preferred payment option. This is largely attributable to the fact that consumers using

credit cards have access to all their available funds or lines of credit (e.g. extended payment options or overdraft facilities) and using a credit card provides a guarantee to the retailer that the payment will be made (other than, for example, the promise of an EFT payment) (Smith, 2016). In general, South African consumers prefer to make online payments with bank cards.

Other non-cash payment options used by South African online consumers include electronic fund transfers (EFT) or a unique card designed for online shopping with a limit such as, PayPal (South African eCommerce Report, 2014). PayPal is a secure global online payment system that allows users to make payments to other PayPal account holders and operates throughout 203 countries (First National Bank PayPal, 2015). Specifically, for purchases from international retailers, Alfreds (2016) found that for the majority of South African consumers (68%), PayPal is the most popular payment method, followed by a Visa credit card at 37% (Alfreds, 2016).

The complexity of new technologies and growing capacity for information processing have made privacy of transactions an increasingly important issue of online shopping (Lee *et al.*, 2011). Many Generation Y consumers appear to be afraid to shop online or provide personal information online, due to fears of a lack of privacy and the possibility that their information will be misused (Visa, 2012). The current study will attempt to investigate whether this fear is relevant to South African Generation Y consumers as a reason for not engaging in online shopping.

By employing risk-relieving strategies, such as safety cues to decrease financial risk, online retailers can decrease overall perceived risk (Aghekyan-Simonian, Forsythe, Kwon & Chattaraman, 2012). One avenue to decrease financial risk is for online retailers to clearly communicate their integrity and credibility and in doing so, persuade consumers to explore and interact online.

To summarise: The expansion of electronic payments provides consumers with the means to participate in the global digital economy and provides retailers with access to a global consumer base. However, to reap the benefits of this new digital economy and increased market, retailers need to understand the perceived risk and safety concerns with regards to online shopping for Generation Y consumers. Online retailers need to reassure consumers that online payment methods are safe and that their

personal information is secure. Generation Y consumers who perceive less financial risk, will be more likely to shop online. Thus:

H<sub>1A</sub>: There is no relationship between perceived financial risk and purchase intent when shopping online for clothing.

H<sub>1B</sub>: There is no relationship between perceived financial risk and purchase intent when shopping online for books.

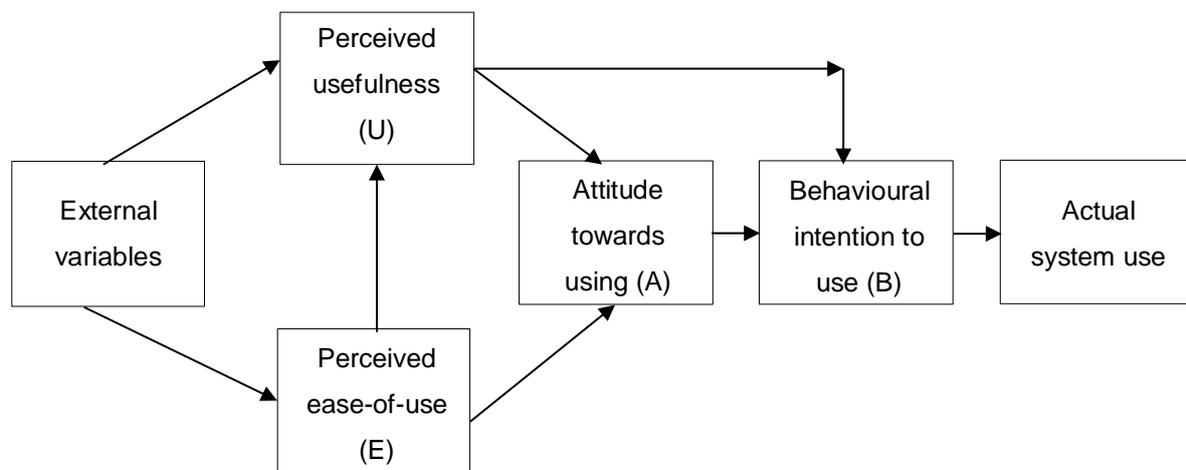
H<sub>2A</sub>: There is no relationship between perceived financial risk and repurchase intent when shopping online for clothing.

H<sub>2B</sub>: There is no relationship between perceived financial risk and repurchase intent when shopping online for books.

#### 3.4.3.2 Psychological risk

Jacoby and Kaplan's seminal research (1972:384) defines perceived psychological risk as 'the possibility that consumers suffer stress due to their purchasing behaviour.' If a user finds a website complicated to use, cannot find the desired product or is confused about how to use the website, the consumer will typically exit the website. It is crucial for online consumers to have a positive perception of an online retailer, since when consumers perceive a website to be easy to use, their future repurchase intentions are affected (Lee *et al.*, 2011). According to Chiu, Chang, Cheng and Fang (2009), a consumer is more likely to undertake continued online usage when it is perceived to be useful and uncomplicated. The Technology Acceptance Model offers insights as to why certain consumers refrain from adopting technology, such as online shopping.

Davis introduced the Technology Acceptance Model (TAM) in 1989, as an extension of the Theory of Reasoned Action, with the intention of explaining the technological behaviour of consumers (Hernandez *et al.*, 2011). The goal of the TAM model is to explain the determinants of technology acceptance, which is capable of explaining user behaviour across a wide range of technologies (Davis, Bagozzi & Warshaw, 1989). The model posits that two beliefs, *perceived ease of use* and *perceived usefulness*, are relevant in determining technology acceptance (Davis *et al.*, 1989). Figure 3.2 illustrates the TAM model and describes the process of technology adoption by consumers.

**Figure 3.2 The Technology Acceptance Model**

(Source: Davis *et al.*, 1989:984)

In the TAM model, *perceived ease of use* refers to the perception that the use of technology does not require additional effort by the consumer, while *perceived usefulness* reflects the degree to which a consumer considers technology to improve outcomes. It is argued that consumers will increase their technology usage if they perceive high usefulness and ease of use from the new technology, which will positively influence their purchase intentions (i.e. Actual System Use) (Hsieh & Tsao, 2014). Consumers who do not perceive high levels of usefulness or ease of use, will be slow to adopt new technologies into their lives. According to Gareeb and Naicker (2015), South African consumers are a prime example of slow adopters of new technologies as the information and technology sector has not yet met the national objective of access to a full range of communication services. For example, mobile access continues to grow, but Internet and broadband access are low, in comparison to other developed countries (Gillwald *et al.*, 2012).

Another major factor that increases the complexity and perceived psychological risk of online shopping, is the inability of the consumer to examine and evaluate products before purchase. This is further compounded by the lack of physical contact with sales staff to provide further clarifications (Pappas, 2016). As a result, psychological risk has been found to affect the purchasing decision of consumers and clarifies why many consumers purchase a product online only after examining it in-store (Pappas, 2016).

Physical distance and lack of personal contact, are factors that further increase consumers' anxiety and risk perceptions of online shopping. The possibility of establishing contact with online retailers through interactive websites (e.g. live chat functions) is a way that retailers can reduce the amount of complexity and psychological risk associated with online shopping. Elements enhancing interactivity of a website (e.g. online help desks and technical assistance) allows for interaction with retailers when consumers have queries and act as risk-relievers for consumers (Constantinides, 2004). Online retailers need to relieve the risk that consumers perceive by providing consumers with online assistance, to increase purchase intent and decrease perceived psychological risk amongst consumers.

Tangible products sold online are often perceived as intangible, as consumers have no direct contact with the products being purchased (Nepomuceno *et al.*, 2014). However, despite the psychological risk perceived by consumers due to the intangibility of online shopping, the Internet attempts to increase the tangibility by providing consumers with high quality information, such as, product descriptions, specifications and photographs (Nepomuceno *et al.*, 2014).

To summarise: Due to the nature of online shopping, online consumers inherently perceive more risk when purchasing a product than consumers in traditional brick-and-mortar stores. Consumers can easily perceive online shopping to be more complex and difficult to use than traditional shopping and be hesitant to engage with it. Not all consumers are comfortable with purchasing a product before physically examining it and may consequently perceive more psychological risk with online shopping. Thus:

H<sub>3A</sub>: There is no relationship between perceived psychological risk and purchase intent when shopping online for clothing.

H<sub>3B</sub>: There is no relationship between perceived psychological risk and purchase intent when shopping online for books.

H<sub>4A</sub>: There is no relationship between perceived psychological risk and repurchase intent when shopping online for clothing.

H<sub>4B</sub>: There is no relationship between perceived psychological risk and repurchase intent when shopping online for books.

### 3.4.3.3 Performance risk

Performance risk is concerned with the potential failure of the product or website to meet expected performance requirements and is formally defined by Mitchell (1999) as ‘the potential loss occurred by the failure of a product to perform as expected.’ Less formally, perceived performance risk is the possibility that the product does not work properly or only works for a short period of time (Jacoby & Kaplan, 1972) and can be applied in the online shopping context to include the performance of a website. As uncertainty about the functionality of the product and website increases, consumers perceive increased performance risk. Because performance risk associated with online shopping involves the performance of the product and the performance of the website, online consumers could perceive higher levels of performance risk than non-online consumers.

The first component of performance risk, product risk, is defined as the loss experienced by consumers when their expectations of a product do not actualise after purchase (Forsythe & Shi, 2003:869). In the online environment, product risk is largely due to the consumer’s inability to physically examine products before purchase or due to limited product information being available. The fact that consumers cannot accurately evaluate the quality of a product prior to purchase, makes product risk an important element of perceived performance risk (Hsieh & Tsao, 2014).

The perceived performance risk of online shopping is further increased by website factors such as time spent searching for information, the uncertainty regarding after sales service and the difficulty of navigation on a website (Pappas, 2016). Website usability includes the ability to find one’s way around a website, to locate desired information, to know what to do next and to do so with minimal effort (Constantinides, 2004). Website system quality is an essential element of website usability and includes the usefulness of the website (ease of use and ease of navigation), availability, reliability, suitability and response time (long loading times). The usability or performance of a website is crucial to successful online shopping.

One of the greatest challenges that consumers face when using a website to shop online, is locating the required information or purchase they wish to undertake (Lee *et al.*, 2011). The greater this difficulty, the smaller the probability will be of consumers making an online purchase or considering online purchases in future (Lee *et al.*, 2011).

The quality of a website is the online equivalent of the atmosphere of a physical store and accordingly acts as a trustworthiness cue for consumers to decrease perceived risk (Chang & Chen, 2008). In the same way that physical settings of a store affect consumers' psychological and behavioural responses, website atmospheric cues can affect consumers' shopping intentions (Richard & Habibi, 2016). Shopping in general has been recognised as a recreational activity and despite the high levels of perceived risk, online shopping is no different.

Although online shopping predominantly involves information processing and decision-making, experiential dimensions also exist, including consumers' emotions, social interactions, sensory stimulation and aesthetic enjoyment. These experiential dimensions are affected by the atmospherics of a website that can be defined as the 'conscious design of web environments to create a positive effect to increase favourable responses' (Dailey, 2004:796). Atmospheric cues have even been said to be more influential on consumers in online environments than traditional shopping settings, as online stores lack ambient and social factors (Richard & Habibi, 2016). However, despite this finding, many websites still fail to create positive consumer experiences.

Positive online experiences can be enhanced by employing risk-relieving strategies to decrease performance risk. Because the use of the Internet for shopping causes consumers to become product buyers and users of web technologies (Wu, 2013), perceived performance risk can be decreased by enhancing the entire online shopping experience, by presenting consumers with functioning, easy to use, fast, interactive websites and the correct products (Constantinides, 2004).

Research by Lee and Kozar (2012) has shown that high website system quality, can increase the use of online shopping (website usability) as well as overall sales, because consumers can easily complete their purchase. Elements that enhance website usability are convenience of using the website, the loading speed of pages and the information structure. To relieve the risk perceived by consumers, the content presented on a website must be personalised, complete, relevant and easy to understand to assist consumers in making online purchases and reduce the perceived performance risk.

Another aspect of perceived psychological risk for consumers, is the after sales service that an online retailer offers, or lack thereof. With the growth of the Internet, the web has increased in importance as a communication and distribution medium. Retailers therefore need to ensure that their logistics run smoothly to and from consumers. Marketers must determine how to manage consumer returns successfully in their attempt to increase sales (Foscht *et al.*, 2013). One factor that is very relevant to after sales services, is the return policy of online retailers. Consumers need to be reassured that the product can be easily returned, refunded or exchanged in the case of a faulty or unwanted product, thus reducing perceived performance risk. Reverse logistics (from consumer to supplier) is a key success factor and risk-relieving strategy in online shopping.

To summarise: online consumers are often apprehensive about shopping online, due uncertainty about the success of the online shopping process. Consumers need to be reassured that online shopping is effective and that they will receive the correct product. In addition to receiving the correct product, online consumers need to be made aware that it is possible to return incorrect products with ease. Therefore, it is likely that consumers will engage in online shopping if they perceive less performance risk. Thus:

H<sub>5A</sub>: There is no relationship between perceived performance risk and purchase intent when shopping online for clothing.

H<sub>5B</sub>: There is no relationship between perceived performance risk and purchase intent when shopping online for books.

H<sub>6A</sub>: There is no relationship between perceived performance risk and repurchase intent when shopping online for clothing.

H<sub>6B</sub>: There is no relationship between perceived performance risk and repurchase intent when shopping online for books.

#### 3.4.3.4 Time risk

Within the online context, time risk has been defined as the potential loss of time and effort and includes issues related to website navigation, processing an order and delivery delays (Aghekyan-Simonian, Forsythe, Kwon & Chattaraman, 2012:327). This dimension of perceived risk also includes waiting time for the receipt of products, as

well as time spent returning incorrect items (Aghekyan-Simonian *et al.*, 2012). Slow, dysfunctional websites (e.g. error messages) and poor interactivity, prompt online consumers to search for alternative shopping channels (e.g. other online websites or brick-and mortar-alternatives), since time saving and convenience are motivations for shopping online (Constantinides, 2004). Unlike traditional stores, online consumers spend less time in online stores and IABSA (2016) reported that South African Internet users' average duration of a visit to a website is 4 minutes (South Africa Online, 2016). In short, the perceived time risk associated with online shopping is said to be affected by three factors namely, the website functionality, delivery and information search. These will be outlined briefly in the subsequent paragraphs.

The successful functionality of a website reflects the reliability of an online retailer and decreases the time risk perceived by consumers (Goode & Harris, 2007). To attract new consumers and keep existing consumers, the reliability of a website is vital (i.e. websites must function quickly and without broken links). It is imperative that online retailers relieve the risk perceived by consumers and reassure consumers that shopping online is not more difficult or time-consuming than shopping in traditional environments. When consumers have to deal with a website that hosts failed java scripts, missing graphics and long loading times, consumers will often leave the website frustrated (Lee *et al.*, 2011).

Because online shopping is a remote transaction, consumers who purchase online are unable to use or consume the product immediately and have to wait for the product to be delivered (Liao & Keng, 2013). The common occurrence of delivery delays in South Africa (when products are delivered later than expected) is a major online shopping service failure and poses time risk to consumers. Consumers may experience dissatisfaction, non-repurchase intention or complaint intention as a result of a delay between their purchase and consumption (Liao & Keng, 2013). However, contrary to this expected outcome of service failure, early research by Nowlis, Mandel and McCabe (2004) reported that delivery and consumption delays may not necessarily pose negative outcomes, as it is possible for consumers to experience pleasurable anticipation from waiting for a product.

Delivery is a major concern for South African online consumers as many delivery services in South Africa are unreliable and consumers have to spend extended periods

of time waiting for products to be delivered or make use of private courier companies at higher costs (Study reveals that e-commerce is on the rise in South Africa, 2015). This is due to limited postal services in the country, as a result of financial strains and employee strikes. The South African Post Office (Sapo) was predicted to record a loss of R1 billion during the 2015/2016 financial year, following a loss of R1.5 billion during the previous year (Reuters, 2016). In 2016, 25 post offices in South Africa were closed down as they were not able to pay their rent (Lindeque, 2016). Thus, many South African online retailers and consumers have had to turn to private courier companies for delivery. For example, Media24 Lifestyle, responsible for publishing the You, Drum and Mens Health magazines, reported that the post office strikes and poor service delivery, cost the company thousands of rands (Le Cordeur, 2015). As a result, Media24 Lifestyle has had to switch to using an internal distributor, On the Dot, to handle subscription deliveries. However, such a solution incurs additional costs to the company and restricts magazine deliveries, as few private companies reach rural areas in South Africa (Le Cordeur, 2015).

Another important aspect of the delivery process is organising the delivery. A study by PayPal (2014) reports that 71% of South African online consumers indicated that if they did not have to keep re-entering payment or delivery details, they would be more likely to purchase online as the process would be less time-consuming (Study reveals that e-commerce is on the rise in South Africa, 2015). Similarly, 51% of online consumers in South Africa reported that if they did not have to register on a website, they would shop online more often as the process would be faster. It is evident that not only is the delivery and time of delivery important to South African consumers, but also the process of arranging delivery. Consumers are more willing to shop online if the process is perceived as quick and efficient.

In addition to the functionality of a website and the delivery of products being a factor of perceived time risk, the search for information can also increase or decrease time risk perceived by consumers. During the online buying process, information search is a key stage for consumers (Vazquez & Xu, 2009). Consumers become more empowered as they search online for the best prices and value for money and accessing information about prices has been considered an important factor in affecting consumers' online shopping intent (Vazquez & Xu, 2009). The information

search stage is an attempt of consumers to overcome the uncertainty and risk associated with online shopping. As the perceived risk of a purchase increases and consumers become more involved with a purchase, consumers will be more likely to search for information from personal sources such as their family and social circles (Foscht *et al.*, 2013). The Internet has dramatically changed the way in which consumers search for and use information. What was earlier considered to be a tool for enhancing information, has today become a business platform (Richa, 2012).

The information quality of shopping websites has a considerable impact on the shopping decisions of consumers. The intangibility of online shopping increases the uncertainty experienced by consumers and as a consequence, perceived time risk increases when limited information is provided about a product, resulting in consumers having low self-confidence regarding the purchase evaluation (Pappas, 2016). When shopping online, consumers desire an efficient transfer of information, interaction with others and an abundance of immediate and customised information (Hsieh & Tsao, 2014). By providing detailed and complete information, retailers can decrease the perceived risk of consumers and reduce uncertainties inherent to the online environment (Hsieh & Tsao, 2014). A consumer who is more informed about a product, will perceive less time risk when purchasing online (Nepomuceno *et al.*, 2014) and high-quality information can satisfy consumers and enhance their confidence in shopping, reducing uncertainties and potential losses.

To summarise: Consumers are usually attracted to online shopping because of the convenience and time saving benefits that it offers, in comparison to traditional shopping. If the activities included in the process of online shopping (using a website, finding information, receiving a product) cause delays and lead consumers to spend extended periods of time completing a purchase, consumers will perceive time risk and refrain from shopping online. Therefore,

H<sub>7A</sub>: There is no relationship between perceived time risk and purchase intent when shopping online for clothing.

H<sub>7B</sub>: There is no relationship between perceived time risk and purchase intent when shopping online for books.

H<sub>8A</sub>: There is no relationship between perceived time risk and repurchase intent when shopping online for clothing.

H<sub>8B</sub>: There is no relationship between perceived time risk and repurchase intent when shopping online for books.

#### 3.4.3.5 Social risk

Social risk is concerned with the consumers' perception of other people regarding their online consumer behaviour. It involves the likelihood that online shopping will influence the way others perceive the prospective online consumer for example, being rejected by members of society based on the products purchased (Hassan, Kunz, Pearson & Mohamed, 2006; Lim, 2003). Social risk therefore is also linked to online shopping behaviour, in terms of the social influences consumers are exposed to when deciding to shop online, the reputation of online retailers they use and the electronic word-of-mouth regarding online shopping that consumers are subjected to.

Hassan et al. (2006) posits that the use of the Internet for purchases might result in social concerns for certain consumers as social interactions are at play. The interactivity of the Internet allows retailers to enhance the online shopping experience by presenting consumers with personalised services and facilitating interaction with other online consumers willing to share experiences and suggestions (e.g. by rating products). Interactivity can therefore underpin the basic element of the Internet, namely networking (Constantinides, 2004). Interactive elements can contribute to a positive online shopping experience by reducing uncertainty of an online purchase.

Uncertainty about online shopping is often decreased, and perceived social risk relieved, when consumers consult their friends, family and wider social circles. A study by The Nielsen Company (2010), found that while consumers often check online reviews for certain products such as, electronics and cars, they still trust the opinions of their friends and family most (The Nielsen Company, 2010). Social interaction and recommendations among online consumers, often takes place in the form of word-of-mouth communications and affects perceived social risk.

With the advent of the Internet, a paradigm shift in word-of-mouth communication occurred and traditional word-of-mouth, defined as 'an oral form of interpersonal non-commercial communication amongst acquaintances,' has evolved to become electronic word-of-mouth (eWOM) (Cheung & Lee, 2012:219). This new electronic word-of-mouth differs from traditional word-of-mouth in many ways, such as its

scalability, speed of diffusion and accessibility. It is evident that word-of-mouth communication in any format has a large impact on the purchase intention of consumers. The Internet has spurred the development of eWOM communication as a new method of WOM propagation and expanded consumer options with regard to gathering information (Hsieh & Tsao, 2014).

Traditional word-of-mouth has been extended to electronic media such as blogs, review websites, online discussion forums and social network websites. Consumers can share their opinion about a product or brand with other consumers who are geographically dispersed and shape the purchase behaviour of others (Cheung & Lee, 2012). Smith, Menon and Sivakumar (2005) conducted a study amongst university students and found that consumers who were exposed to high credibility peer recommendations, used these recommendations in their final purchase decision and were able to reduce their search efforts.

This finding has continued to be prevalent in young consumer behaviour. Honigman (2013:1) found that 51% of Generation Y consumers report that consumer opinions on websites have a greater impact on their purchase decisions than recommendations from family and friends. In the same article, Honigman also writes that 64% of Generation Y consumers would want companies to offer more ways for them to share their opinions. Online reviews and peer recommendations are crucial to the reputations of retailers as news circulates quickly under consumers. The study by The Nielsen Company (2010) report that 41% of online consumers are more likely to share a negative product experience online than a positive product experience. The sharing of negative experiences with a retailer amongst consumers, can be harmful to the reputation of that retailer.

As a result of network effects and socialising of consumers, the reputation of online retailers has become a significant factor that can increase or decrease the social risk perceived by online consumers. Retailer reputation has gained interest amongst academics and practitioners, given its major influence on the success of companies and scholars have previously addressed the confusion between retailer reputation and image (Radomir, Plaias & Nistor, 2014).

Many contradictory views regarding reputation and its related constructs, such as image, exist making these constructs allied constructs of reputation. Some researchers consider reputation and image to be synonymous and use the terms interchangeably, while others treat the constructs as distinct, but related constructs (Gotsi & Wilson, 2001). The current study supports the latter view in explaining perceived social risk, recognising the related, but distinctness of image and reputation and the impact of reputation on perceived social risk.

In their pivotal research, Gotsi and Wilson (2001) aimed to clarify the relationship between reputation and image. Their research differentiates between two schools of thought, namely the *analogous school of thought* and the *differentiated school of thought*. The analogous school of thought does not distinguish between image and reputation, but instead treats the two constructs as synonymous and uses the terms interchangeably. In contrast to this, the differentiated school of thought draws a distinction between image and reputation, but considers the two constructs interrelated (Gotsi & Wilson, 2001). The investigation into the effect of the reputation of a retailer on perceived social risk in the current study is based on the views of the differentiated school of thought, that retailer image and reputation are distinct, but related constructs and focuses on reputation, as image has been said to be influenced by reputation.

The differentiated school of thought proposed by Gotsi and Wilson (2001) comprises three perspectives. Firstly, image and reputation are entirely distinct constructs, given that image may reflect a view that does not correspond to reality, but instead to a false reality. The second and third perspectives treat image and reputation as interrelated constructs where the second perspective alludes that reputation has an impact on image and is one of its dimensions, while the third perspective reflects that reputation is considered a result of stakeholders' perception of a retailer's image. For the purposes of this study, retailer reputation and image will be treated as elements of perceived social risk to ensure a clear understanding of the two constructs.

According to Hess (2008:386), retailer reputation is defined as 'consumers' perceptions of how well a retailer takes care of its consumers and concern for their welfare.' Good reputations provide retailers with a 'buffering effect,' protecting them from the negative consequences of service failures and decrease the social risk perceived with online shopping (Lee *et al.*, 2011). Well established reputations offer

multi-channel firms an advantage against start-up retailers in terms of consumer loyalty and purchase intent.

A high level of brand awareness and a strong reputation, enables consumers of physical stores to easily use their online store as well, reducing the consumers' demand for credibility and integrity credentials as a way to decrease perceived social risk (Constantinides, 2004). As an extension of this finding, retailer reputation has been said to moderate the relationship between service failure severity and satisfaction and led to higher levels of repurchase intentions and lower levels of perceived risk following service failures (Lee *et al.*, 2011).

As noted previously, consumers perceive greater risk in the online shopping environment, particularly for products where physical examination is important (e.g. clothing) and the risk-reducing roles of online retailer image and reputation on purchase intentions, may be significant (Aghekyan-Simonian *et al.*, 2012). In the online context, consumers' image of the online retailer may influence their product evaluations when they cannot examine the product directly (Aghekyan-Simonian *et al.*, 2012). Retailer image and its relationship with purchase intent have previously been studied, showing a mostly positive relationship between retailer image and consumers' purchase intent and a negative relationship between retailer image and perceived risk (Aghekyan-Simonian *et al.*, 2012).

To summarise: The advancement of the Internet allows consumers across the world to be connected and share reviews, opinions and experiences relevant to online shopping. Because online shopping is a relatively new phenomenon in South Africa, many consumers will be influenced by the opinion of their social circles about whether they should shop online and where to shop online. Electronic word-of-mouth is influential amongst consumers to convey information regarding certain retailers and can be beneficial or harmful to online retailers. If consumers are influenced to refrain from shopping online in general, or from certain online retailers, their perceived social risk would increase. Therefore,

H<sub>9A</sub>: There is no relationship between perceived social risk and purchase intent when shopping online for clothing.

H<sub>9B</sub>: There is no relationship between perceived social risk and purchase intent when shopping online for books.

H<sub>10A</sub>: There is no relationship between perceived social risk and repurchase intent when shopping online for clothing.

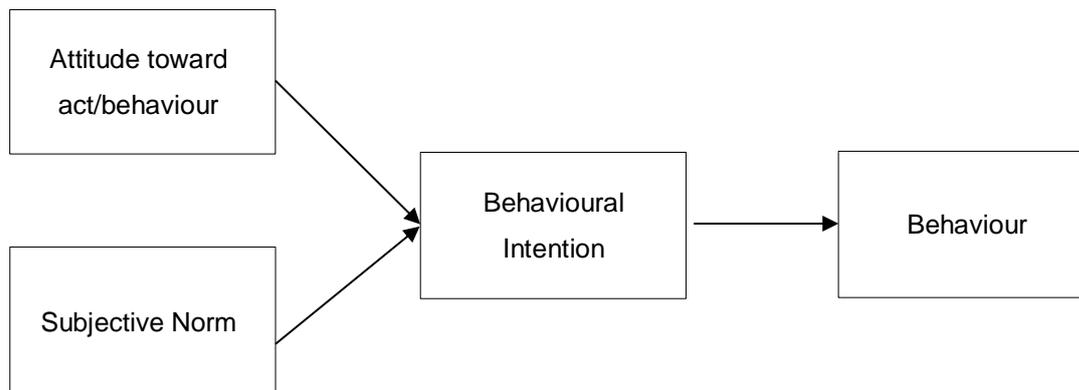
H<sub>10B</sub>: There is no relationship between perceived social risk and repurchase intent when shopping online for books.

Understanding the purchasing behaviour of online consumers is crucial for retailers, as actual behaviour can be predicted from intention (Wang & Chang, 2013). Purchase intent and repurchase intent will be eluded to in the following paragraphs.

### **3.5 ONLINE PURCHASE INTENT AND REPURCHASE INTENT**

Previous research has provided evidence for the effect of the dimensions of perceived risk on online purchase intent and behaviour (Forsythe & Shi, 2003; Garbarino & Strahilevitz, 2004), yet little consensus exists for the effect of specific types of perceived risk on online purchase intent (Dai, Forsythe & Kwon, 2014). For example, Forsythe and Shi (2003) argue that perceived privacy risk (included under perceived financial risk in the current study) does not affect online shopping intent, but Doolin, Dillons, Thompson and Corner (2005) found that perceived privacy risk often discourages consumers from shopping online. The results of previous studies offer little agreement on the strength of the dimensions of perceived risk on online purchase intent.

Online purchase intent refers to a consumer's subjective probability of patronising an online store and is a major determinant of actual buying behaviour (Wu, Chen, Chen & Cheng, 2014). The Theory of Reasoned Action, by Ajzen and Fishbein (1980), suggests that all human behaviour is preceded by intentions, which are based on consumers' favourable or unfavourable attitude towards the behaviour and perceived subjective norms. Figure 3.3 depicts the Theory of Reasoned Action.

**Figure 3.3 The Theory of Reasoned Action**

(Source: Madden, Ellen & Ajzen, 1992:4)

The Theory of Reasoned Action can be used to explain a large part of the variance in behavioural intent and to predict behaviours by focusing on attitudes and subjective norms. In developing the model, Fishbein and Ajzen (1975) differentiated between an attitude towards an object and an attitude towards a behaviour. The authors demonstrated that attitude towards a behaviour is a more effective predictor of actual behaviour than attitude towards an object. It is expected that positive attitudes will result in higher purchase intentions (Amaro & Duarte, 2015). Subjective norms (i.e. whether other consumers will approve or disapprove of performing the behaviour), are related to behavioural intention, because consumers often act based on their perceptions of what other consumers think they should be doing (Yu and Wu, 2007).

Relevant to the online context, early research by Pavlou (2003) found intent to use a website to be an appropriate measure of online purchase intent, when assessing online consumer behaviour. Given that online shopping involves purchasing and information sharing, purchase intent will depend on various factors that need to be enhanced to increase purchase intent amongst online consumers (Pavlou, 2003).

The factors that need to be enhanced to increase purchase intent were investigated by Chang et al. (2005). They categorised the antecedents of online purchase intent into three categories: perceived characteristics of the website, product characteristics and consumer characteristics. In addition to these three categories, prior experience has also been indicated as an antecedent of online purchase intent. Strong online

purchase intent often results from consumers who have successful past purchase experience, which aids in reducing uncertainties (Leeraphong & Mardjo, 2013).

Because online shopping is generally perceived to be riskier than traditional shopping, prior purchase experience reduces uncertainty amongst consumers and increases purchase intent (Thamizhvanan & Xavier, 2012). Despite the importance of online purchase intent, the intent of a consumer might only build up slowly over time and might not immediately lead to a purchase (Lo, Frankowski & Leskovec, 2016), making it important for online retailers to ensure online repurchase intent.

As in physical stores, a further critical measure of success for online retailers is the repurchase behaviour of consumers (Lee *et al.*, 2011). Although new consumers are important to a firm, they are more expensive to serve than existing loyal consumers. It is therefore imperative to determine the key drivers of repurchase behaviour of online shoppers to ensure that consumers return to an online store. Consumer intention of repurchase behaviour is also beneficial to online retailers as repurchase intentions have previously been linked closely to consumer loyalty (Lee *et al.*, 2011). Research in the traditional marketing context, such as that conducted by Ryu, Lee & Kim (2012), found a significant positive relationship between consumer loyalty and consumers' behavioural intentions. The same principle can be applied to the online environment, where retailer reputation and website quality, have been found to be antecedents of satisfaction, loyalty and future behaviours (Kim & Lennon, 2013).

In contrast to satisfaction, perceived risk is predicted to decrease purchase intentions in the online shopping environment and it is expected that the five dimensions of perceived risk discussed in the study, would similarly reduce purchase and repurchase intent among online shoppers. Thus, a negative correlation is expected to exist between online purchase and repurchase intent and perceived risk. Perceived risk is also predicted to affect online purchase and repurchase intent differently for low involvement and high involvement products in the online environment. The current study distinguishes between high (clothing) and low (books) involvement products when studying perceived risk in the online shopping context.

Perceived risk has been found to have a negative effect on purchase and repurchase intent, especially within the online shopping context (Dai *et al.*, 2014). It is therefore

imperative for online retailers to understand the risks perceived by online consumers and to overcome these barriers in order to increase purchase and repurchase intent amongst consumers.

### **3.6 CONCLUSION: CHAPTER THREE**

Given the rapid growth of the Internet and online shopping across the world, as well as in South Africa, a number of unanswered questions remain. Why do Generation Y consumers in South Africa, who are aware and knowledgeable about Internet technologies refrain from shopping online? What types of risks do Generation Y consumers perceive when shopping online? Answers to these questions will highlight South African consumers' concerns about transacting over the Internet and the potential impact of these concerns on their Internet patronage behaviour.

The current study will therefore examine (1) the technology usage and habits of Generation Y consumers in South Africa, (2) the various types of risks perceived by Generation Y consumers in South Africa when shopping online, (3) the effect of perceived risk on the online purchase intent and/or repurchase intent of Generation Y consumers and (4) whether a difference exists in the risk perceived by consumers when purchasing high (e.g. clothing) and low (e.g. books) involvement products.

## CHAPTER 4

### RESEARCH METHODOLOGY

#### 4.1 INTRODUCTION

Many researchers have criticised marketing literature to be of poor quality (Churchill, 1979), pointing in particular to the measures used to assess constructs. As a result, it is argued that marketers need to pay greater attention to developing more appropriate measures to further marketing as a science. According to Churchill (1979), the primary step to develop appropriate measures is to conceptually define the construct being investigated and to specify its domain. Subsequent to the literature review, where perceived risk and purchase intent were discussed and defined, the focus of this chapter is to ensure that reliable research methods are followed to test hypotheses.

The objective of chapter four is to provide a description of the research methodology followed in the study, to address the research problem and objectives. The way in which the data was collected, as well as justifications for decisions are provided. The succeeding sections will discuss the scale, pilot test, measurement instrument and data analysis techniques used.

Due to the fact that the research methodology is dependent on the problem being investigated, as well as the research objectives and hypotheses, it is deemed appropriate to reiterate the problem statement, research objectives and hypotheses of the current study in subsequent sections.

#### 4.2 PROBLEM STATEMENT

On completion of the exploratory literature review, it was clear that further research into the growth of online shopping in South Africa was required. The literature review concluded that online shopping in South Africa is not as advanced as in other, more developed countries, and fewer consumers in South Africa seem to engage in online shopping. Given that Generation Y consumers account for a large proportion of the South African population, the current study focuses on the online shopping behaviour of this particular group, in a bid to shed light on the risks that younger consumers might perceive with online shopping, as a possible explanation for the slow growth of online shopping in South Africa.

Previous research has shown that online shopping in South Africa experiences slow growth in comparison to other countries, despite the increased Internet penetration rates, thereby provoking the need for more extensive, empirical research (E-commerce lags in South Africa, 2015). In addition, Generation Y consumers have become the focus of many studies, as these consumers were raised in an era where technology is evident in all aspects of life and shopping has evolved from a simple act of purchasing to a more complex process (Valentine & Powers, 2013). It is thus expected that the Generation Y cohort, as technologically enabled consumers, should contribute more significantly to the growth of online shopping, warranting further research.

There are gaps in existent consumer behaviour literature and online shopping research that make the study valuable. Firstly, extensive research has previously been conducted on the growth of online shopping in the United States, China and India, but few studies exist for the South African market. Empirical explanations for the behaviour of South African consumers are rare, but remain important as the country is emerging as an important consumer market. Secondly, limited research exists, specifically on South African Generation Y consumers (Handa & Khare, 2011). This gap in research could be attributed to the fact that Generation Y is a young and evolving market and that researchers have had less time to observe and study the behaviour of this cohort, in comparison to older generations. However, the purchasing power and size of this consumer group warrants the need to understand how to target them more effectively.

Specifically, there is a distinct lack of research aimed at understanding the nature of the relationship between perceived risk and online purchase and repurchase intent. Previous studies (Pappas, Kourouthanassis, Giannakos & Lekakos, 2017; Monsuwe, Dellaert & Ruyter, 2004) mainly report on motivations to shop online rather than barriers that prevent online shopping. Thus, there is a need for further research to understand perceived risk, as a possible barrier to online shopping, in the fast-evolving retail industry.

In light of the identified gaps in literature, the study aims to make a contribution to existing literature. It is posited that the findings can contribute to the knowledge base used by marketers to develop more appropriate marketing strategies, to meet the needs of their current and prospective consumers.

### 4.3 RESEARCH OBJECTIVES

The primary objective of the study is to investigate the possible perceived risk barriers that prevent technologically enabled South African Generation Y consumers from shopping online or from shopping online again.

The secondary research objectives of the study are to investigate:

- The relationship between perceived risk and online purchase intent of South African Generation Y consumers when shopping for clothing.
- The relationship between perceived risk and online purchase intent of South African Generation Y consumers when shopping online for books.
- The relationship between perceived risk and online repurchase intent of South African Generation Y consumers when shopping for clothing.
- The relationship between perceived risk and online repurchase intent of South African Generation Y consumers when shopping for books and,
- To describe the technology use of South African Generation Y consumers.

### 4.4 HYPOTHESES

The following hypotheses were formulated based on the research objectives. It should be noted that all the hypotheses are contextualised for the South African Generation Y market.

H<sub>01A</sub>: There is no relationship between perceived financial risk and online purchase intent when shopping for clothing.

H<sub>01B</sub>: There is no relationship between perceived financial risk and online purchase intent when shopping for books.

H<sub>02A</sub>: There is no relationship between perceived financial risk and online repurchase intent when shopping for clothing.

H<sub>02B</sub>: There is no relationship between perceived financial risk and online repurchase intent when shopping for books.

H<sub>03A</sub>: There is no relationship between perceived psychological risk and online purchase intent when shopping for clothing.

H<sub>03B</sub>: There is no relationship between perceived psychological risk and online purchase intent when shopping for books.

H<sub>04A</sub>: There is no relationship between perceived psychological risk and online repurchase intent when shopping for clothing.

H<sub>04B</sub>: There is no relationship between perceived psychological risk and online repurchase intent when shopping for books.

H<sub>05A</sub>: There is no relationship between perceived performance risk and online purchase intent when shopping for clothing.

H<sub>05B</sub>: There is no relationship between perceived performance risk and online purchase intent when shopping for books.

H<sub>06A</sub>: There is no relationship between perceived performance risk and online repurchase intent when shopping for clothing.

H<sub>06B</sub>: There is no relationship between perceived performance risk and online repurchase intent when shopping for books.

H<sub>07A</sub>: There is no relationship between perceived time risk and online purchase intent when shopping for clothing.

H<sub>07B</sub>: There is no relationship between perceived time risk and online purchase intent when shopping for books.

H<sub>08A</sub>: There is no relationship between perceived time risk and online repurchase intent when shopping for clothing.

H<sub>08B</sub>: There is no relationship between perceived time risk and online repurchase intent when shopping for books.

H<sub>09A</sub>: There is no relationship between perceived social risk and online purchase intent when shopping for clothing.

H<sub>09B</sub>: There is no relationship between perceived social risk and online purchase intent when shopping for books.

H<sub>010A</sub>: There is no relationship between perceived social risk and online repurchase intent when shopping for clothing.

H<sub>010B</sub>: There is no relationship between perceived social risk and online repurchase intent when shopping for books.

#### **4.5 RESEARCH DESIGN**

After the delineation of the problem statement and hypotheses, the research design was developed. A research design acts as a 'masterplan,' specifying the methodology and procedures followed to collect and analyse data (Zikmund & Babin, 2010). The research design is a framework for one of three types of research that can be undertaken, namely; exploratory research, descriptive research or causal research.

During exploratory research, the researcher gathers information to posit exploratory relationships that addresses an ambiguous problem (Shields & Rangarajan, 2013). The purpose is not to provide conclusive evidence, but rather to guide and refine subsequent research efforts (Zikmund & Babin, 2010). Descriptive research describes the characteristics of a phenomenon being studied (Shields & Rangarajan, 2013), while causal research is conducted to investigate cause-and-effect relationships and determine causality. When conducting causal research, the researcher observes a change in the dependent variable that occurs as a result of a change in the independent variable (Brains, Willnat, Manheim & Rich, 2011).

In the current study, exploratory research was conducted at the initial stages of the research process in the form of a literature review. The purpose of the literature review was to obtain a better understanding of the variables and domain of the current study. The literature review also assisted in developing a conceptual model that serves as a basis for the current study and is supported by relationships identified in previous research. Following the literature review, descriptive research was undertaken during the remainder of the research process for two reasons. Firstly, the research problem at hand was clearly defined and secondly, the hypotheses were formulated to investigate relationships between dependent and independent variables, without analysing causation. In the following sections the target population, the sampling frame and methods are presented.

#### **4.6 TARGET POPULATION**

Kumar, Aaker and Day (2002) define a target population as all the objects that possess common characteristics regarding the marketing problem. Similarly, Zikmund and Babin, (2010) define the target population of a study as the complete collection of units or individuals that possess a common trait and includes a group of elements containing information required by the researcher. Defining the target population, depends on identifying criteria crucial to the target population.

For the study, the target population was classified as South African Generation Y consumers. The target population did not discriminate between South African Generation Y consumers who have access to the Internet and those who do not, as this aspect was addressed in the survey. Because this delineation included a very large number of consumers, a sample had to be drawn.

#### **4.7 SAMPLING FRAME AND METHOD**

Zikmund and Babin (2010) define a sampling frame as a list of elements that distinguish the sample group from the total target population and allows for a sample to be drawn accordingly. For the qualitative phase of the research, focus groups were used and a sample was drawn based on convenience. Students who were on campus at Stellenbosch University and in the Marketing Honours class on a specific day, were asked to participate in the focus group.

For the quantitative phase of the study, the researcher was unable to obtain a list of all Generation Y consumers in South Africa and therefore, a sampling frame was not available. The absence of a sampling frame implied that non-probability sampling techniques had to be applied for the quantitative phase of the research (LaMorte, 2016).

Non-probability samples are selected subjectively, where each unit of the population has an unknown, non-zero probability of being chosen for the sample (Blumberg, Cooper & Schindler, 2008). As it was unknown how many respondents would respond to the online survey and the researcher could not accurately determine the sample, a non-probability sampling method was used.

For non-probability sampling, four methods were available to the researcher: convenience, judgment, quota and snowball sampling (Zikmund & Babin, 2010). A convenience non-probability sampling method was used in the current study. The sample was selected where and when the study was conducted (i.e. during 2016 at Stellenbosch University). An online survey was sent to all students at Stellenbosch University (after obtaining ethical clearance) and therefore, the researcher had relatively easy access to potential respondents through the university's database and was not limited by time and budget constraints.

Due to the use of a non-probability sampling method, the results of the current study are not generalisable across all populations, where generalisability can be defined as the degree to which researchers can make inferences from their measurements to other measures, methods and outcomes (John & Benet-Martinez, 2000). However, the results of the current study remain valuable to expand existing knowledge on consumer behaviour within the South African Generation Y cohort.

#### **4.8 ETHICAL CONCERNS**

Before data could be collected from respondents, the researcher was required to apply for institutional permission from the Research Ethics Committee (REC), as well as for ethical clearance from the Departmental Ethics Screening Committee (DESC) at Stellenbosch University. The institutional permission and ethical clearance allowed the researcher to administer a survey among students of Stellenbosch University and to obtain access to a large student group. The DESC committee considered the research proposal and awarded ethical clearance, based on the classification that the data gathering posed low risk to potential respondents.

As a requirement for obtaining ethical clearance for the study, a cover letter was included in the e-mail sent to potential respondents explaining the purpose of the survey. The cover letter again highlighted that participation in the survey was voluntary and anonymous and put respondents at ease by explaining the purpose of the survey. Respondents had to agree to participate in the study by selecting 'yes' to the questions '*I agree that I have read and agree to the Consent Form attached in this e-mail*' and '*I agree to voluntarily participate in this survey*' on the first page of the survey. Respondents could only continue with the survey if they selected 'yes' to the above

two items. Consequently, respondents who selected 'no' to these items were forced to exit the survey. The cover letter was also summarised in the e-mail containing the link to the survey, which thanked students for their time and participation. Once ethical permission was obtained, the researcher could continue with the study by executing the research design.

#### **4.9 SAMPLE SIZE**

The sampling elements for both phases of the research process were students. A relatively large population (approximately 20 000 sampling units) was available for the researcher to draw a sample for both phases of the research process (i.e. quantitative and qualitative), as access and permission to contact all students at Stellenbosch University was granted. The sample size for the qualitative phase of the research, the focus group, was 25 students.

For the quantitative phase, the initial sample size (i.e. number of surveys opened) was 717 respondents. However, during the data preparation process, the data of 88 respondents were removed due to non-South African citizenship and four respondents' data were removed due to their ages, as they were too old or young to fall into the Generation Y category. The data of 17 respondents were also removed, as they did not voluntarily agree to participate in the survey, while the data of two more respondents were removed due to a large amount of missing values. Therefore, the final number of surveys completed for the study was 606 (n=606) respondents.

A large sample of 606 respondents was obtained and used in the study to make provision for non-response error. This represents a response rate of 3% (i.e. 606 respondents from 20 000 students). Furthermore, item 18 was used as a dividing question to distinguish between experienced (n=416) consumers who engage in repurchase intent, and inexperienced online consumers who engage in purchase intent (n=190).

#### **4.10 THE MEASUREMENT INSTRUMENT**

Two measurement instruments were administered. For the qualitative phase of the study, a question route was developed to guide the discussion of perceived risk barriers to online shopping during the focus group (see Annexure A). For the

quantitative phase of the study, a self-administered questionnaire was developed (see Annexure B).

An initial questionnaire with 80 items measuring perceived risk and purchase intent was developed. The items were adapted from previously applied measurement instruments that yielded acceptable psychometric properties, such as the surveys used by Javadi et al. (2012), Khare et al. (2012), Nepomuceno et al. (2014), Lian and Yen (2014) and Hsieh and Tsao (2014). A number of the items were rephrased and adjusted from the original sentence construction, to fit the purpose of the current study (see Annexure C). Changes were predominantly made with regard to the language and the insertion of a product category.

#### **4.10.1 Pilot test**

The initial questionnaire was distributed to 20 students at Stellenbosch University to serve as a pilot test. The pilot test sample consisted of students who were not included in the focus group. The test was conducted mainly to ensure that the technical aspects of the online survey functioned correctly and that items were easy to understand and read. Respondents were specifically asked to point out any errors or words that created confusion. Furthermore, cross-checks were made to determine whether the mail server classified the e-mail as junk (and thus sending it to the respondent's junk mail folder) and whether respondents could save, exit and return to the survey at a later stage.

The responses to the pilot test were captured into an Excel spreadsheet. Reliability calculations were conducted using SPSS and included Cronbach alpha coefficients. The Cronbach alpha values were calculated for every dimension of perceived risk and purchase intent, separately for clothing and books. The Cronbach alpha coefficients of the items included in the pilot test were all above the value of 0.7 and according to Nunnally and Bernstein (1994), 0.7 is a satisfactory cut-off value to ensure reliability of items for exploratory research. However, the number of responses were limited; thus, the results should be interpreted with caution.

Pilot test respondents indicated that the measurement instrument was too long and tedious and led to response fatigue. In an effort to reduce the length of the questionnaire, items that would increase the Cronbach alpha upon deletion or items

that were deemed repetitive were removed. Ten items were retained to measure each dimension of perceived risk and the questionnaire was shortened to contain 55 items in section B.

#### **4.10.2 Final questionnaire**

The final questionnaire included a dichotomous screening question where respondents had to answer 'yes' or 'no' to the question '*I am a South African citizen.*' If respondents answered 'no,' they were thanked and the platform closed. The screening question ensured that only South African citizens participated in the study as the study is based on the South African online market. Two demographic variables, namely age and gender, were identified to be relevant to the study and items measuring demographics followed the screening question. Items investigating the technology usage of respondents (section A) followed the screening and demographic items.

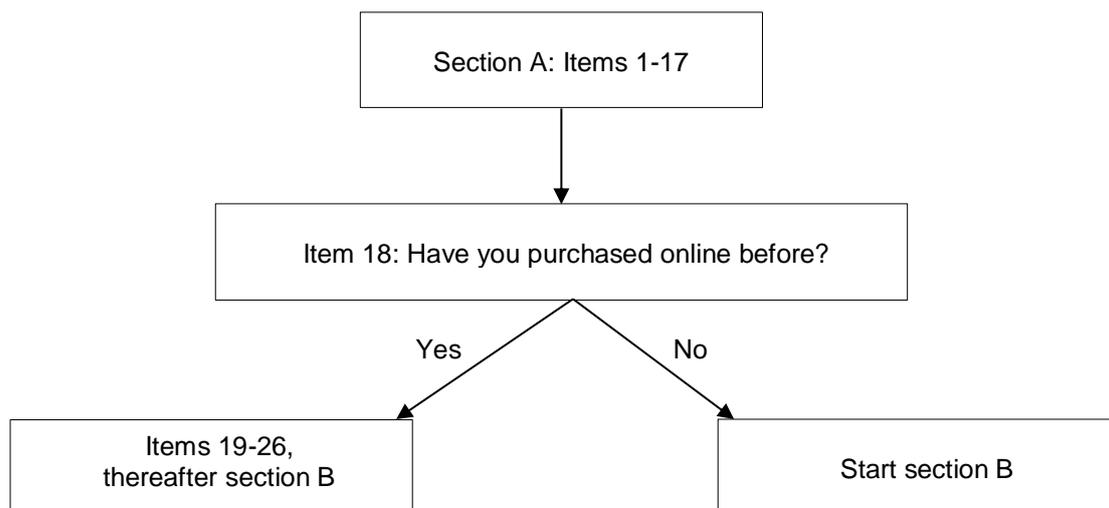
Section A contained 26 items to determine how and when South African Generation Y consumers use Internet technologies in their daily lives. The items in section A were fixed-ended radio button items where respondents had to select an applicable category as their answer. Answer options were provided for every item and respondents had to answer every item before continuing with the next items. The items in this section were generated by the researcher and based on previous studies and the results from the focus group.

In section A of the questionnaire, items numbered 1-17 investigated the general Internet usage of respondents (e.g. how and how often they access the Internet). Thereafter, item 18 divided respondents into two groups; sample one: consumers who had purchased online before (i.e. experienced online consumers) and sample two: consumers who were new to online shopping (i.e. inexperienced online consumers). The purpose of the division was to differentiate between consumers whose online purchase intent was measured and those whose online repurchase intent was measured.

Respondents who had previously shopped online and selected 'yes' for item 18, were asked further questions regarding their online shopping behaviour, for example, from which websites they had purchased before and what payment options they used to

purchase online. Consequently, respondents who selected 'no' to item 18 were redirected to start section B of the survey. The results from section A were used to compile and describe the technology usage profile of South African Generation Y consumers. Items measuring the dimensions of perceived risk and online purchase and repurchase intent followed in section B.

**Figure 4.1 Illustration of answering process in section A**



Section B included fixed-ended statements, using a seven-point Likert scale that ranged from 'strongly disagree' to 'strongly agree' and included a middle point for respondents to indicate a neutral attitude. A seven-point Likert scale was chosen to increase variance in the measure and improve distribution of the data. Respondents were asked to indicate which of the scale points were most appropriate to describe a statement as it related to their own behaviour.

Section B included 55 items that measured the five dimensions of perceived risk (i.e. financial risk, psychological risk, performance risk, social risk and time risk), as well as online purchase intent. The questionnaire layout was also designed to elicit an answer for each statement for both high involvement products (clothing), as well as for low involvement products (books). The same items were used to measure online purchase and repurchase intent. The word 'again' was inserted in brackets for consumers to read if applicable (i.e. experienced online consumers). The items in section B were coded (see Annexure D) and randomly sequenced to reduce possible priming and response

bias effects. Because certain items in section B were negatively worded, reverse coding was done.

#### **4.11 DATA COLLECTION**

Data was collected through primary and secondary research methods. Secondary research, in the form of a literature review, was conducted first, followed by primary research.

##### **4.11.1 Secondary research**

First, empirical studies in major marketing and consumer behaviour journals were identified as valid and reliable sources through a research database. Search e-databases were consulted through the Stellenbosch University's online library, specifically for news articles and marketing journals relating to the topic of the study. Examples of such e-databases included Google Scholar, Emerald Insight and EBSCOHost. The e-databases were used through keyword searches to narrow the search. Terms such as 'perceived risk,' 'online shopping,' 'purchase intent,' 'repurchase intent' and 'Generation Y' were investigated.

In terms of procedure, it was decided to include studies from 2011 onwards to ensure relevance, unless literature could only be found in older, seminal research papers. Previous studies and industrial data, such as Bloomberg and Statistics South Africa, as well as recent news articles and reports on online shopping trends and statistics, were also consulted.

Additionally, the secondary research included consulting literature regarding models and theories of consumer involvement and consumers' acceptance of technology, to serve as a foundation for the current study. For example, literature on the Technology Acceptance Model, the Theory of Reasoned Action and Mannheim's theory provided researchers with a better understanding of online consumer behaviour. As a result of the models, theories and literature investigated in the secondary research of the study, a conceptual model illustrating the relationship between the five identified dimensions of perceived risk on online purchase and repurchase intent, was proposed for the current study (see Figure 5.1).

Previous literature on the variables of perceived risk and purchase intent was used to guide the literature review of the current study, taking into account some contradictory findings. The secondary research defined the variables to be investigated and explained the differences between online and offline shopping. Furthermore, the literature review described Generation Y consumers in terms of their lifestyles, technology usage and shopping habits. Once the literature review was complete, primary research was required to address the specific problem at hand.

#### **4.11.2 Primary research**

As previous research did not exist for the problem investigated in this study, primary research had to be conducted. The research problem of the current study required that a two-phased approach of qualitative and quantitative research be conducted to generate information about the technology usage of Generation Y consumers in South Africa, as well as the relationship between perceived risk and online purchase and repurchase intent. Therefore, both a focus group and an online survey were used to conduct the required primary research in two phases.

##### **4.11.2.1 Qualitative research: Focus group**

To gain insight into the online behaviour of consumers, the researcher facilitated a focus group with 25 post-graduate marketing students at Stellenbosch University. These students fit the criteria for the study (i.e. South African, Generation Y). A focus group was selected as an appropriate qualitative research method, as focus groups promote self-disclosure and allow the researcher to better understand what participants think and feel (Krueger & Casey, 2015).

The focus group was facilitated to revolve around perceived risk barriers to online shopping, as well as the technology usage, without imposing answers on participants. Questions posed and discussed during the focus group were formulated in a question route (see Annexure A) and included inter alia which websites students have previously used to shop online, what products they have purchased online and why some refrain from shopping online.

The responses from the focus group emphasised books and clothing as products that students had purchased online, but also products that other respondents hesitate to

purchase online. Feedback from the focus group was recorded, allowing the researcher to be fully involved in the discussion. The data from the focus group was analysed by examining and analysing the recording for patterns and key points that described the online behaviour of participants. The information obtained from the focus group was used in conjunction with previous literature to compile items for the final questionnaire.

#### 4.11.2.2 Quantitative research: Online survey

An online survey was chosen as a primary quantitative research method, as it is an easy to administer, low cost and reliable method of conducting quantitative research. The researcher was able to easily administer the survey and the only cost incurred was for the prize offered to one respondent (i.e. a coffee voucher). The coffee voucher was deemed a reasonable prize to motivate students and yet avoid poor quality answers from students only interested in winning the prize.

The survey was classified as a cross-sectional survey, as it was administered at only one point in time to investigate the risk perceived by Generation Y consumers when shopping online. The survey was administered at Stellenbosch University and was designed online using SUNSurveys, with the help of the Information Technology (IT) Department of the university. After the necessary ethical clearance and institutional permission were obtained, the IT Department provided the researcher with access to 20 000 students, using the Stellenbosch University database. The survey was sent automatically from the database and no individual e-mail addresses were given to the researcher. On completion of the questionnaire, respondents submitted their answers electronically and could contact the researcher with questions or queries.

The survey was self-administered and the researcher was not involved in reading or assisting any of the respondents in answering the questions. The survey was kept 'active' and open for ten days. No reminder e-mail was sent, as the sample size was deemed adequate.

## 4.12 DATA ANALYSIS

The statistical program, Statistica, was used to analyse the data. The data analysis included descriptive and inferential statistics.

#### **4.12.1 Descriptive data analysis**

The items in section A described the technology usage of respondents, as well as the demographic profile of the sample. The data described how, when, where and why South African Generation Y consumers use technology. The distributions of gender and age were represented in frequency tables. Following the descriptive data analysis, inferential data analysis was conducted.

#### **4.12.2 Inferential data analysis**

The inferential data analysis firstly included tests for reliability and validity. Measurements used in research are often subject to error from various sources, such as the interviewer or the sampling procedure. Reliability refers to how much variation in the scores is due to random error and such errors decrease the reliability of an instrument. Thus, researchers need to minimise the amount to error in a measure (John & Benet-Martinez, 2000). Reliability is defined as ‘the ability of a measuring instrument to consistently generate similar findings’ (Leedy & Ormrod, 2010:29) and is a critical element of measurement, as it provides evidence that independent, but comparable measures of the same construct, yield the same results (Churchill, 1979).

In addition, Cooper and Schindler (2011:283) posit that reliability is defined as ‘the degree to which responses from a sample are consistent across all scale items measuring the same construct.’ Reliability consists of three perspectives namely; stability, equivalence and internal consistency (Cooper and Schindler, 2011).

- Stability is tested by administering the same test to the same respondents twice (test-retest coefficient),
- Equivalence considers how much error can be introduced by different selection of items,
- Internal consistency uses a single test to assess the homogeneity of items. It refers to the ability of a measurement instrument to consistently measure the same underlying constructs.

The current study is concerned with the ability of the measuring instrument to measure certain underlying variables (perceived financial, psychological, performance, social and time risk and purchase intent) and thus, the focus was on internal consistency. To

ensure that results from the current study were reliable, Cronbach alpha coefficients were calculated. Cronbach alpha can be defined as ‘a coefficient of reliability that measures how well items measure a single uni-dimensional latent variable’ (i.e. inter-item consistency) (Carlson & O’Cass, 2010:116). Cronbach alpha coefficients describe how well items focus on a single construct and assess the internal consistency of multi-item scales in the questionnaire (Bryman & Bell, 2011:159).

Validity is concerned with whether a scale measures the construct it was intended to measure (Zikmund & Babib, 2010:250). Establishing construct validity is much more reliant on the degree of correlation between measures and whether these measures behave as expected (Churchill, 1979:70). Convergent validity is ‘the extent to which two or more different measures deliver similar results when measuring the same construct’ (Jacoby, 1978:92).

To demonstrate reasonable convergent validity, three criteria were used (Fornell & Larcker, 1981):

- Composite reliability scores should be at least 0.7
- The average variance explained (AVE) should be at least 0.5
- All outer loadings should be greater than 0.7

In addition to convergent validity, discriminant validity must also be established as satisfactory to test that a variable is not highly correlated with tests to measure other variables. Research by Henseler, Ringle and Sarstedt (2014) confirmed, by means of a simulation study, that previous approaches to assess discriminant validity (e.g. Fornell-Larcker criterion) do not reliably detect the lack of discriminant validity in common research situations. In addition, research by Voorhees, Brady, Calantone and Ramirez (2016) asserts that the HTMT ratio, with a 0.85 cut-off, provides a trustworthy assessment of discriminant validity as it offers a balance between high detection and low arbitrary violation (i.e. false positive) rates. The HTMT ratio is therefore used in the current study.

The inferential data analysis techniques used were guided by the type of data collected. The study investigated relationships between perceived risk and online purchase and repurchase intent and collected metric (interval scale) data. Therefore,

correlation analyses were conducted by applying the partial least square (PLS) technique.

PLS is often preferred in statistical analyses as it places few restrictions on sample size, measurement scales and residual distributions (Chin, 1998). PLS does not make presumptions regarding distributions and is capable of estimating complex models using smaller samples (Carlson & O’Cass, 2010). When applying the PLS technique, the rule of thumb to determine adequate sample size, is to use a sample size ten times larger than the number of items used to measure each variable (Hair *et al.*, 2014). Every variable in the current study was measured by ten items and therefore, the minimum sample size for the current study was proposed as 100. Also, according to Chin and Newstead (1995), the minimum sample size for PLS ranges between 30 and 100 and the current study obtained 416 respondents for sample one (experienced online consumers) and 190 respondents for sample two (inexperienced online consumers). Therefore, the sample size in the current study achieved the benchmark for using PLS. Other covariance based techniques (e.g. AMOS and LISREL), require a minimum sample size of 200 (Carlson & O’Cass, 2010) and were therefore not considered.

PLS combines the uses of multiple linear regression and factor analysis for measuring model parameters and model structures (Meng-Hsiang *et al.*, 2014). Moreover, PLS is a powerful tool by which to analyse relationships and models under development, making it a particularly suitable statistical technique for the current study. A PLS model is formally defined by two sets of linear relations: the outer model, which refers to the relationship between the latent variables (e.g. perceived financial risk) and multiple indicators (i.e. items), and the inner model, which specifies the hypothesised relationships between the latent variables (Carlson & O’Cass, 2010). The technique is capable of calculating key outputs such as factor loadings, average variance explained (AVE) and composite reliabilities (CR) to establish validity and reliability.

The PLS analysis determined whether significant relationships exist between the dimensions of perceived risk and online purchase and repurchase intent. The PLS results also indicate the strength and direction of the relationships between variables for each dimension of perceived risk and online purchase and repurchase intent, for

the context of high involvement products (clothing) and low involvement products (books). The inferential data analysis indicated whether to support the hypotheses or not and assisted in drawing conclusions from the data.

#### **4.13 CONCLUSION: CHAPTER FOUR**

The research methodology chapter explains the procedures followed in conducting the primary and secondary research for the current study. Secondary research was conducted first by examining previous literature. Thereafter, primary research was conducted by means of a survey to generate data from a sample of respondents (South African Generation Y consumers). A two-phase approach was followed, including an initial focus group and an online survey thereafter. Chapter five will present and interpret the data from the online survey and guide the researcher in forming conclusions and making a contribution to existing online consumer behaviour research.

## CHAPTER 5

### RESULTS AND DISCUSSION

#### 5.1 INTRODUCTION

The primary objective of this study is to investigate the risks that Generation Y consumers might perceive with shopping online, as a possible explanation for the slow growth of online shopping in South Africa. This chapter reports on the empirical findings as related to the predicted relationship between the five dimensions of perceived risk and online purchase and repurchase intent. The sample of respondents was divided into two sub-samples based on whether the respondent had previously shopped online or not. Sample one consisted of experienced consumers (n=416), whose online repurchase intent was measured, while sample two (n=190) included respondents who had not previously shopped online (i.e. inexperienced consumers) and whose online purchase intent was measured. As product type is important when studying online shopping behaviour (Constantinides, 2004), purchase and repurchase intent were measured for the context of high and low involvement products (clothing and books respectively).

The study included four sub-samples for the context of online shopping, namely: (i) experienced consumers for the context of clothing, (ii) experienced consumers for the context of books, (iii) inexperienced consumers for the context of clothing, and (iv) inexperienced consumers for the context of books. The data of the total sample was subjected to reliability and inferential analyses. The inferential analysis was conducted by means of partial least squares (PLS) to analyse the hypothesised relationships. In the subsequent sections, the descriptive insights and inferential results of the current study will be presented.

#### 5.2 DESCRIPTIVE INSIGHTS

The following section provides results in terms of two demographic items, gender and age, as well as the technology usage profile of respondents.

##### 5.2.1 Gender

Table 5.1 depicts that the majority of respondents are female (65% of the total sample), while male respondents made up 35% of the total sample.

**Table 5.1 Gender distribution of the total sample**

Sample	Category	Frequency	Percentage (%)
Total sample group (n=606)	Male	215	35
	Female	391	65
Sample 1: (n=416) Experienced online consumers	Male	160	38
	Female	256	62
Sample 2: (n=190) Inexperienced online consumers	Male	55	29
	Female	135	71

Within sample one (experienced online consumers), the majority of respondents were female (62%), while 38% were male. Similarly, the gender distribution in sample two (190 inexperienced online consumers) was 135 (71%) female and 55 (29%) male.

A possible explanation for the majority female responses could be that Stellenbosch University hosts more female than male students (Stellenbosch University Statistical Profile, 2016). In 2016, the undergraduate student population was 54.6% female and the post-graduate group was 50.8% female. Additionally, previous researchers have found that females are generally more prone to have a sense of responsibility and duty to complete online surveys (Smith, 2008). Following gender, the second demographic variable, age, was analysed.

### 5.2.2 Age

To determine the age of respondents, an open-ended, no categories, item was provided where respondents were requested to enter their age. As the current study is focused on the Generation Y market, the distribution of the survey amongst students at Stellenbosch University ensured that the majority of respondents formed part of the desired age bracket. Respondents who were older than 36 years or younger than 16 years were removed from the data set as they did not form part of the Generation Y cohort as outlined for the current study. Table 5.2 presents the results.

**Table 5.2 Age distribution of the total sample**

Sample	Category	Frequency (n)
Sample 1: (n=416) Experienced online consumers	Minimum	18
	Maximum	26
	Mean	21
Sample 2: (n=190) Inexperienced online consumers	Minimum	18
	Maximum	25
	Mean	20

For sample one (experienced online consumers), the age distribution of respondents was between 18 and 26 years, the typical ages of university students. The average age of the experienced consumer sample was 21 years. This distribution of ages is in agreement with the defined ages of Generation Y for the current study.

For sample two (inexperienced consumers), the majority of the age distribution fell between 18 and 25 years and this corresponds to the age distribution of sample one and the typical ages of South African university students. The average age of the inexperienced sample group was 20 years. Following the two demographic items, section A of the survey described the technology usage profile of respondents.

### 5.2.3 Technology usage profile of respondents

A clear observation from the results of section A is that younger South Africans generally have sufficient access to the Internet. More than half (52%) of the respondents indicated that they have Internet access at all times, while 45% indicated that they have access to the Internet for most of the day and only 3% seldom have access to the Internet. Therefore, the current study cannot pose the lack of Internet access as a satisfactory explanation for the slow growth of online shopping among this particular sample. Research by Makhitha (2014) supports this fact and reports that Generation Y consumers in South Africa access the Internet daily, but the majority do not shop online.

The results further indicate that 92% of respondents are able to access the Internet from their homes and of these, 73% mostly make use of the Internet while at home. Other areas from where respondents often access the Internet include the university

campus (26%) and public areas, such as coffee shops (1%). Most respondents were also found to own at least one device that provides Internet access (i.e. laptops, computers or smart phones) and similar usage rates for laptops and desktop computers and cell phones are reported.

Fifty-one percent of respondents accessed the Internet from their cell phones most often, while 47% of respondents access the Internet from their laptops or desktop computers most often. Amongst the 51% of respondents who most often use their cell phones for Internet access, 97% own a smart phone while only 3% own and use a basic feature phone (e.g. Nokia 105). Accessing the Internet via a tablet device was not very popular among the sample group, as only two percent of respondents reported to gain Internet access through the use of a tablet. These device ownership and usage findings support the notion that almost half of the South African population has access to the Internet (Shezi, 2016).

Consumers who access the Internet from their phones or in public areas, often have to use a public Wi-Fi network (Wireless Fidelity, a technology that allows electronic devices to connect to a wireless Internet). However, as Wi-Fi is not always freely available in South Africa, most consumers have to purchase data bundles to access the Internet (van Zyl, 2016). The high cost of data and Wi-Fi in South Africa (van Zyl, 2016), remain a potential barrier to Internet access. For example, in 2017, the cost of 1GB (Gigabyte) of data in South Africa was approximately R150. A study conducted by Tariffic, a company that assists consumers to reduce their cell phone bills, showed that among the BRICS countries (Brazil, Russia, India and China), as well as Kenya and Australia, data costs in South Africa are second-most expensive, superseded only by Brazil (Henderson, 2016). Research by ICT Africa also found that lower-income consumers in South Africa are forced to spend up to 20% of their wages on small amounts of data (Henderson, 2016). These figures are high considering that the majority of South Africans believe Internet access has become a basic human right (Henderson, 2016).

From the current study, the total amount of data used per month by respondents, for all Internet activities, was distributed almost equally amongst respondents who use less than 5GB data per month and respondents who use between 5GB and 10GB data

per month. Forty-two percent of respondents reported that they use less than 5GB of data per month for all Internet activities while, 35% report that they use between 5GB and 10GB per month for all Internet activities. Only 23% of respondents use more than 10GB data per month for all Internet activities, which is justifiable as purchasing large data bundles could become expensive for students with limited funds.

For Internet access gained through cell phones specifically, half of respondents (50%) indicated that they use less than 1GB of data per month on their phones. Thirty-four percent of respondents indicated that they use between 1GB and 2GB per month on their phones and only 16% indicated using more than 2GB of data per month on their cell phones. The majority of respondents use a relatively small amount of data per month on their phones, as data for mobile phones in South Africa is expensive.

To verify the barrier to Internet access due to expensive data bundles, 66% of respondents indicated that their Internet access is limited or capped at a certain point, while 34% of respondents indicated that they have unlimited Internet access. Nearly half of the respondents in the current survey (46%) indicated that they share the high cost of Internet with their parents, while 38% of respondents' parents pay for their Internet access. Sixteen percent of respondents cover their own Internet costs.

Despite reports of high Internet costs (van Zyl, 2016), many respondents have become dependent on the Internet and continue to spend a large amount of time online. The majority of respondents (64%) reported spending less than five hours per day on the Internet, while 33% spend between five and ten hours per day on the Internet. Only three percent of respondents indicated that they spend more than ten hours online per day. It is interesting to note that most respondents reported to spend less than five hours per day online. It was expected to be higher as the question referred to all Internet activities (e.g. research, social media, banking). A possible explanation for this result could be that respondents misunderstood what 'online' meant and only reported the time spend searching the Internet and not the time spent on social media, e-mail or mobile applications.

As it was expected that respondents spend a large amount of time online, it was also noteworthy to investigate the times during which respondents were most active online.

The majority (55%) of Internet access by respondents was reported to occur between 18:00 and 23:00, while 38% of Internet access occurs during the afternoon (12:00-18:00). Fewer respondents (6%) indicated the morning (06:00-12:00) as the time slot during which they access the Internet most often and only one percent of respondents selected 23:00-06:00 as the time during which they usually access the Internet. These results are in line with expectations that most respondents access the Internet during the day, while at university.

After investigating how and when respondents access the Internet, they were also asked to indicate the principle reasons for accessing the Internet. Seven categories, representing potential reasons for accessing the Internet, were provided and respondents had to select all answers applicable to them. In agreement with the finding that most respondents access the Internet while at university, the most popular reason for accessing the Internet was found to be academic-related activities.

Other reasons for accessing the Internet were information search (91%), social media (93%) and e-mail (85%). A smaller, yet significant number of respondents (65%) selected online banking as a reason for accessing the Internet. Although only 38% of respondents cited online shopping as a reason for accessing the Internet, 81% of respondents selected online browsing as a reason for accessing the Internet. This finding supports existing research, which confirms that consumers in South Africa browse the Internet for products, but many are hesitant to complete a purchase online (PwC Total Retail: Retailers and the Age of Disruption, 2015).

Almost all respondents (96%) indicated that they have previously browsed online for products. The most popular websites used to browse online are Gumtree (79%) and Takealot.com (73%). This finding is in agreement with literature that describes South African consumers as 'online browsers' rather than 'online purchasers' (PwC Total Retail: Retailers and the Age of Disruption, 2015). This gap between browsing (with possible intention to purchase) and actual purchase, has been termed the 'the intention-action gap' by Mzoughi, Negra and Habcha (2012). This gap was explained in chapter two and poses a significant challenge for online retailers. Thus, an improved understanding of the contribution that perceived risks makes to this gap, is imperative.

In line with the high number of respondents who report to browse online, 99% of respondents consider themselves to be 'technologically enabled.' This finding forms the basis of the argument for the current study, namely, that young South African consumers are able to shop online, but are hesitant to do so.

Based on whether respondents purchased online previously or not, they were divided into two groups, namely experienced online consumers and inexperienced online consumers. Only the experienced online consumer group was required to complete section B of the questionnaire. Of the experienced online consumers, 60% indicated that they purchase online on a yearly basis, 38% indicated that they make monthly online purchases, while only two percent reported to make weekly online purchases. It is evident from the results that many respondents who purchase online, do not do so on a regular basis.

From the online purchases that were reported by sample one (experienced online consumers), the majority (85%) were made through Internet access from a desktop computer or laptop and 12% of purchases were made from a cell phone. This finding contradicts previous research which explains that an increasing number of South Africans are using their smartphones to shop online (Mobile shopping in South Africa, 2017). In addition, studies have found that Generation Y consumers largely use their phones for social media and communication purposes (Hill, 2016), rather than online shopping.

Sixty percent of the experienced online consumer group indicated that they have used the online vendor Computicket to make online purchases and 59% indicated that they have previously used Takealot.com to make online purchases. Fewer consumers selected fashion-orientated websites, such as Spree and Superbalist, as websites that they have previously used to purchase online. The majority of respondents (54%) reported that they do not purchase clothing online. It is plausible that consumers visited fashion websites, but did not purchase due to perceived risk factors. This finding is supported in the 2016 E-commerce Industry report, which found that 48% of South Africans prefer to purchase high involvement products in-store where they can touch and feel the product (E-commerce Industry Report, 2016).

Another apprehension that has been cited as a barrier to online shopping is that South African consumers are often sceptical about providing credit card details online due to privacy and security concerns (Pantano, 2014). The results in this study also indicate that the preferred online payment method is almost equally distributed between credit card payments (48%) and electronic funds transfers (42%). In line with Pantano's (2014) assertion of security concerns, the majority of respondents (61%) in the current study do not own a credit card. A possible explanation for this finding is that the respondent group consisted of students who are too young to qualify for a credit card. Respondents who purchased online therefore make use of alternative payment methods for example, an EFT.

Of the experienced online consumer respondent group, the majority (81%) reported to spend a relatively small amount (R500 or less) per online purchase. Only two percent of respondents reported to spend larger amounts such as, R1500, per online purchase. The results of the study also indicate that, not only did many respondents report to shop online, but 82% of their friends also shop online. This finding provides promising prospects for the growth of online shopping in South Africa, as online shopping is becoming a more popular form of shopping. Table 5.3, on the following page, depicts a summary of the technology usage profile of the total sample.

**Table 5.3 Summary of technology usage profile of the total sample**

No.	Item	Most prevalent answer	Percentage (%)
1.	Do you have access to the Internet?	Yes	100
2.	How often do you have access to the Internet during a day?	At all times	52
3.	Do you have access to the Internet at home?	Yes	92
4.	From where do you mostly access the Internet?	Home	73
5.	With which device do you mostly access the Internet?	Cell phones	51
6.	Which type of cell phone do you mostly use to access the Internet?	Smart phone	97
7.	Do you have limited Internet access?	Yes	66
8.	How much Internet do you usually use per month in total?	Less than 5GB	42
9.	How much Internet do you usually use per month on your cell phone?	Less than 1GB	50
10.	Why do you use the Internet?	Academics	95
11.	Who pays for your Internet access?	Myself and my parents	46
12.	During what time of day do you usually access the Internet?	18:00-23:00	55
13.	How much time do you usually spend on the Internet per day for all Internet activities?	<5 hours per day	64
14.	Would you consider yourself to be 'technologically able?'	Yes	99
15.	Are you aware of online shopping websites?	Yes	100
16.	Have you browsed online before?	Yes	96
17.	Which websites have you previously used for online browsing?	Gumtree	79
18.	Have you purchased online before?	Yes	69
19.	Which websites have you previously used for online purchases?	Computicket	60
20.	How often do you purchase something online?	Yearly	60
21.	With which device do you mostly purchase online?	Computer/laptop	85
22.	What products do you usually purchase online?	Electronics	50
23.	Do you own a credit card?	No	61
24.	How do you usually pay for online purchases?	Credit card	48
25.	How much do you usually spend on online purchases per month?	<R500	81
26.	Do your friends purchase online?	Yes	82

In the following section the results of the reliability and inferential analyses are reported.

### 5.3 RELIABILITY ANALYSIS

A reliability analysis was conducted to ensure that all items displayed evidence of internal consistency and could be included in the questionnaire. Tables 5.4 and 5.5 show the results from the Cronbach alpha reliability calculations for the data collected from sample one (experienced online consumers) and two (inexperienced online consumers) respectively, for the purchase of clothing and books. The Cronbach

analyses were conducted for all four sub-samples to ensure that the items are reliable in every context.

**Table 5.4 Reliability scores: Sample 1 (experienced online consumers)**

Variable	No. of items	Cronbach's alpha ( $\alpha$ )	
		Clothing	Books
Financial risk	10	0.858	0.854
Psychological risk	10	0.874	0.883
Performance risk	10	0.883	0.882
Time risk	10	0.836	0.823
Social risk	10	0.720	0.716
Repurchase intent	5	0.928	0.911

**Table 5.5 Reliability scores: Sample 2 (inexperienced online consumers)**

Variable	No. of items	Cronbach's alpha ( $\alpha$ )	
		Clothing	Books
Financial risk	10	0.825	0.820
Psychological risk	10	0.816	0.845
Performance risk	10	0.853	0.852
Time risk	10	0.763	0.731
Social risk	10	0.707	0.686
Repurchase intent	5	0.892	0.869

According to Nunnally and Bernstein (1994), in the early stages of construct or predictive validation research, it may be sufficient to have modest reliability of 0.7. The Cronbach alpha scores for all six variables are satisfactory and above the value of 0.7, except for perceived social risk in sample two, for the purchase of books, where a Cronbach alpha score of 0.686 was recorded. Due to the close proximity of this score to the value of 0.7 and also due to the fact that this study conducts basic exploratory research, all the items were retained for further analysis.

## 5.4 INFERENTIAL DATA ANALYSIS AND RESULTS

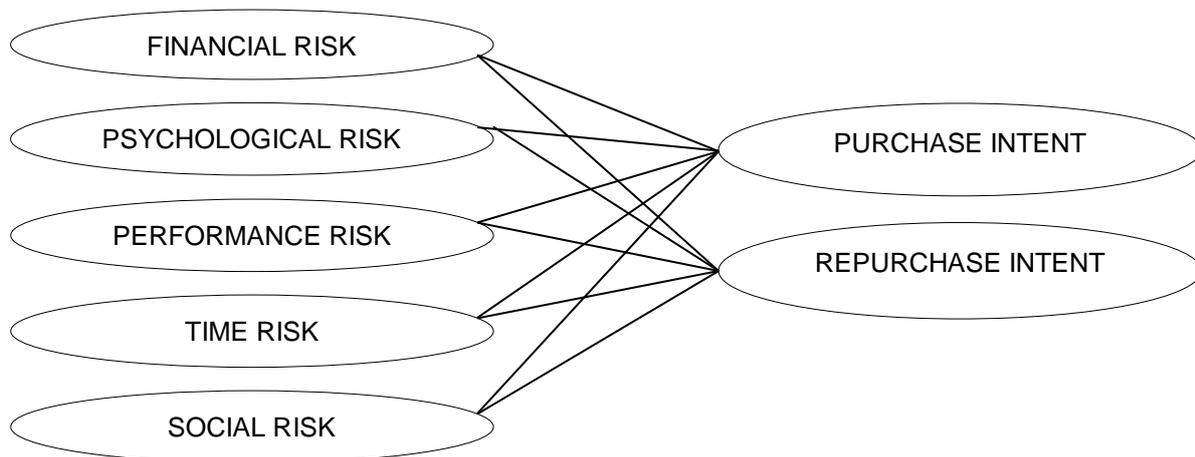
By employing PLS, a two-step analytical approach was followed. Firstly, an assessment of the measurement scales was conducted, where after the structural model was evaluated. By following this approach, the researcher could confirm, with some confidence, that the conclusions on the structural relationships were drawn from

a measurement instrument with the desired psychometric properties. The following section includes the findings of the PLS analysis allowing for the assessment of the measurement (outer) and structural (inner) models.

#### 5.4.1 Measurement model assessment

A contribution of the current study is the proposed conceptual model (see Figure 5.1), which is based on the literature review of the theory of perceived risk. The model depicts the relationship between five dimensions of perceived risk and online purchase and repurchase intent, and is applied to the contexts of high (clothing) and low involvement products (books).

**Figure 5.1 Proposed conceptual model**



The preliminary analysis focused on assessing the adequacy of the measurement model, by evaluating the reliability and validity of the items measuring each variable. Thus, firstly, the outer model was assessed by evaluating the internal consistency. Thereafter, convergent and discriminant validity were also evaluated.

##### 5.4.1.1 Internal consistency

In addition to assessing the reliability of the items using Cronbach alpha coefficients, composite reliabilities were calculated to determine internal consistency. Composite reliabilities differ from Cronbach alpha coefficients as all the items are weighted equally without factor loading considerations (Carlson & O'Cass, 2010). As previous research suggests, the acceptable threshold level for composite reliability is 0.7 (Meng-Hsiang *et al.*, 2014). Tables 5.6 and 5.7 display the composite reliability (CR) values for

samples one (experienced online consumers) and two (inexperienced online consumers) respectively.

**Table 5.6 Assessment of measurement models: Sample 1 (experienced online consumers)**

Variable	Items	Clothing			Books		
		AVE	CR	Outer loading	AVE	CR	Outer loading
Financial Risk		0.439	0.884		0.429	0.880	
	FINRISK1			0.564			0.570
	FINRISK2			0.678			0.639
	FINRISK3			0.725			0.716
	FINRISK4			0.518			0.588
	FINRISK5			0.722			0.727
	FINRISK6			0.749			0.779
	FINRISK7			0.476			0.447
	FINRISK8			0.814			0.789
	FINRISK9			0.671			0.635
	FINRISK10			0.629			0.579
Psychological risk		0.463	0.896		0.481	0.902	
	PSYCHRISK1			0.647			0.661
	PSYCHRISK2			0.788			0.737
	PSYCHRISK3			0.672			0.720
	PSYCHRISK4			0.728			0.721
	PSYCHRISK5			0.663			0.697
	PSYCHRISK6			0.628			0.663
	PSYCHRISK7			0.656			0.668
	PSYCHRISK8			0.695			0.687
	PSYCHRISK9			0.573			0.616
	PSYCHRISK10			0.733			0.751
Performance risk		0.471	0.894		0.454	0.882	
	PERFORMRISK1			0.445			0.526
	PERFORMRISK2			0.502			0.590
	PERFORMRISK3			0.342			0.086
	PERFORMRISK4			0.754			0.607
	PERFORMRISK5			0.845			0.849
	PERFORMRISK6			0.733			0.785
	PERFORMRISK7			0.719			0.721
	PERFORMRISK8			0.793			0.803
	PERFORMRISK9			0.759			0.773
	PERFORMRISK10			0.777			0.658
Time risk		0.414	0.870		0.396	0.862	
	TIMERISK1			0.293			0.310
	TIMERISK2			0.481			0.522
	TIMERISK3			0.676			0.702

	TIMERISK4			0.616		0.580
	TIMERISK5			0.523		0.431
	TIMERISK6			0.742		0.722
	TIMERISK7			0.742		0.741
	TIMERISK8			0.702		0.723
	TIMERISK9			0.740		0.665
	TIMERISK10			0.754		0.739
Social risk		0.179	0.000		0.170	0.016
	SOCRISK1			0.398		-0.232
	SOCRISK2			0.637		-0.523
	SOCRISK3			-0.416		0.399
	SOCRISK4			-0.035		0.174
	SOCRISK5			-0.489		0.615
	SOCRISK6			-0.492		0.517
	SOCRISK7			0.501		-0.574
	SOCRISK8			0.425		-0.369
	SOCRISK9			-0.248		0.168
	SOCRISK10			-0.281		0.197
Repurchase intent		0.779	0.946		0.743	0.935
	REPURCHINT1			0.851		0.844
	REPURCHINT2			0.931		0.889
	REPURCHINT3			0.919		0.901
	REPURCHINT4			0.894		0.872
	REPURCHINT5			0.812		0.799

**Notes:** AVE = Average variance explained; CR = Composite reliability; FINRISK = Financial risk; PSYCHRISK = Psychological risk; PERFORMRISK = Performance risk; TIMERISK = Time risk; SOCRISK = Social risk; REPURCHINT = Repurchase intent.

**Table 5.7 Assessment of measurement models: Sample 2 (inexperienced online consumers)**

Variable	Items	Clothing			Books		
		AVE	CR	Outer loading	AVE	CR	Outer loading
Financial Risk		0.405	0.863		0.384	0.851	
	FINRISK1			0.609			0.670
	FINRISK2			0.588			0.461
	FINRISK3			0.660			0.691
	FINRISK4			0.254			0.202
	FINRISK5			0.777			0.764
	FINRISK6			0.747			0.758
	FINRISK7			0.361			0.349
	FINRISK8			0.842			0.790
	FINRISK9			0.697			0.634
	FINRISK10			0.583			0.599
Psychological risk		0.384	0.858		0.423	0.874	
	PSYCHRISK1			0.537			0.427
	PSYCHRISK2			0.672			0.606
	PSYCHRISK3			0.516			0.525

	PSYCHRISK4			0.748			0.780
	PSYCHRISK5			0.590			0.616
	PSYCHRISK6			0.697			0.794
	PSYCHRISK7			0.620			0.804
	PSYCHRISK8			0.605			0.726
	PSYCHRISK9			0.392			0.343
	PSYCHRISK10			0.735			0.701
Performance risk		0.415	0.866			0.370	0.837
	PERFORMRISK1			0.541			0.597
	PERFORMRISK2			0.520			0.481
	PERFORMRISK3			0.170			0.084
	PERFORMRISK4			0.437			0.339
	PERFORMRISK5			0.801			0.818
	PERFORMRISK6			0.743			0.817
	PERFORMRISK7			0.665			0.748
	PERFORMRISK8			0.839			0.675
	PERFORMRISK9			0.672			0.637
	PERFORMRISK10			0.759			0.487
Time risk		0.311	0.810			0.297	0.797
	TIMERISK1			0.292			0.250
	TIMERISK2			0.485			0.554
	TIMERISK3			0.626			0.426
	TIMERISK4			0.421			0.476
	TIMERISK5			0.494			0.366
	TIMERISK6			0.696			0.559
	TIMERISK7			0.584			0.591
	TIMERISK8			0.507			0.639
	TIMERISK9			0.544			0.639
	TIMERISK10			0.772			0.760
Social risk		0.227	0.560			0.235	0.606
	SOCRISK1			-0.044			-0.067
	SOCRISK2			-0.296			-0.236
	SOCRISK3			0.533			0.584
	SOCRISK4			0.374			0.447
	SOCRISK5			0.620			0.608
	SOCRISK6			0.625			0.698
	SOCRISK7			-0.111			-0.057
	SOCRISK8			0.044			0.130
	SOCRISK9			0.735			0.688
	SOCRISK10			0.656			0.633
Purchase intent		0.699	0.920			0.658	0.905
	PURCHINT1			0.731			0.730
	PURCHINT2			0.874			0.839
	PURCHINT3			0.880			0.849
	PURCHINT4			0.877			0.869
	PURCHINT5			0.808			0.759

**Notes:** AVE = Average variance explained; CR = Composite reliability; FINRISK = Financial risk; PSYCHRISK = Psychological risk; PERFORMRISK = Performance risk; TIMERISK = Time risk; SOCRISK = Social risk; PURCHINT = Purchase intent.

The analysis provided evidence of acceptable reliability, as the majority of measurement scales indicated reliability scores above 0.7. However, the reliability score of perceived social risk is unsatisfactory with values of 0.000 and 0.016 for sample one (experienced online consumers), for clothing and books respectively, and 0.560 and 0.606 for sample two (inexperienced online consumers), for clothing and books respectively.

The composite reliability values of 0.000 and 0.016 for perceived social risk in sample one (experienced online consumers) are of concern and unacceptable, as the items are deemed unreliable to measure perceived social risk for the current study. However, the low composite reliability values for perceived social risk in sample two (i.e. 0.560 and 0.606) are accepted due to the relatively close proximity of the values to the threshold value of 0.7.

It should be noted that composite reliability tends to overestimate the internal consistency reliability and therefore Cronbach's alpha was also reported earlier in this chapter (Nel, 2017). Ultimately, high internal consistency does not provide sufficient implication of construct validity by itself. According to Nel (2017), true reliability lies between the Cronbach alpha and composite reliability scores. Depending on the correlation between scale items, support may or may not be provided for convergent and discriminant validity. The validity analysis for the current study is outlined in subsequent sections.

#### 5.4.1.2 Convergent validity

The first requirement to determine convergent validity, composite reliability, was reported in section 5.4.1.1. The principle finding pointed to low reliability scores only for the perceived social risk scale and it is possible that perceived social risk must be further investigated. The second requirement for convergent validity is concerned with the average variance explained (AVE). If the average variance explained in items, by their respective variables, is greater than the variance unexplained (i.e.  $AVE = 0.50$ ), convergent validity is achieved.

From table 5.6 and table 5.7 it is evident that the AVE values range between 0.17 and 0.77 and that the scores for all constructs, except purchase and repurchase intent, are

below 0.5. This result does not meet the recommended criteria for convergent validity. The insufficient AVE could be a result of possible random answers from respondents or due to poor measurement and is regarded as a limitation of the current study.

Following the average variance explained, the third requirement for convergent validity is that all item outer factor loadings must be greater than 0.7 (Fornell & Larcker, 1981). Tables 5.6 and 5.7 present the outer factor loadings for every item, for sample one (experienced online consumers) and two (inexperienced online consumers). The outer loadings range between 0.168 and 0.931 for sample one (experienced online consumers) and between 0.044 and 0.880 for sample two (inexperienced online consumers). Not all item factor loadings display loadings greater than 0.7 as would be desired for a sufficient degree of convergent validity.

#### 5.4.1.3 Discriminant validity

To assess discriminant validity, the Heterotrait-Monotrait (HTMT) ratio of correlations was used, based on Henseler et al. (2014) demonstration of the superior performance of this approach compared to the Fornell-Larcker criterion. Because of these superior results Henseler et al. (2014) strongly recommend to use the HTMT criteria for the discriminant validity assessment of measurement instruments.

If the HTMT values (original sample column) are below 0.9, discriminant validity is established between two reflective constructs. The HTMT was calculated using a confidence interval (CI) of 97.5%, where the upper confidence interval limit should be below one for sufficient levels of discriminant validity to be established. The HTMT ratio confirmed the discriminant validity of all variables for sample one (experienced online consumers), as the upper limit ratios were below one, as shown in table 5.8.

**Table 5.8 Discriminant validity assessment: Sample 1 (experienced online consumers)**

<b>Heterotrait-Monotrait ratio (HTMT): Clothing</b>				
	Original sample	Lower limit 2.5%	Upper limit 97.5%	Discriminant validity
PERFORMRISK-FINRISK	0.907	0.868	0.941	Yes
PSYCHRISK-FINRISK	0.850	0.806	0.892	Yes
PSYCHRISK-PERFORMRISK	0.892	0.858	0.927	Yes
REPURCHINT-FINRISK	0.350	0.268	0.447	Yes
REPURCHINT-PERFORMRISK	0.239	0.170	0.332	Yes
REPURCHINT-PSYCHRISK	0.489	0.372	0.589	Yes
SOCRISK-FINRISK	0.802	0.723	0.874	Yes
SOCRISK-PERFORMRISK	0.784	0.683	0.852	Yes
SOCRISK-PSYCHRISK	0.720	0.649	0.786	Yes
SOCRISK-REPURCHINT	0.523	0.422	0.611	Yes
TIMERISK-FINRISK	0.869	0.819	0.917	Yes
TIMERISK-PERFORMRISK	0.760	0.697	0.819	Yes
TIMERISK-PSYCHRISK	0.917	0.879	0.951	Yes
TIMERISK-REPURCHINT	0.478	0.367	0.574	Yes
TIMERISK-SOCRISK	0.654	0.607	0.743	Yes
<b>Heterotrait-Monotrait ratio (HTMT): Books</b>				
	Original sample	Lower limit 2.5%	Upper limit 97.5%	Discriminant validity
PERFORMRISK-FINRISK	0.902	0.859	0.942	Yes
PSYCHRISK-FINRISK	0.851	0.803	0.892	Yes
PSYCHRISK-PERFORMRISK	0.892	0.859	0.927	Yes
REPURCHINT-FINRISK	0.363	0.271	0.461	Yes
REPURCHINT-PERFORMRISK	0.274	0.189	0.370	Yes
REPURCHINT-PSYCHRISK	0.436	0.324	0.536	Yes
SOCRISK-FINRISK	0.792	0.725	0.862	Yes
SOCRISK-PERFORMRISK	0.725	0.643	0.799	Yes
SOCRISK-PSYCHRISK	0.662	0.597	0.736	Yes
SOCRISK-REPURCHINT	0.525	0.436	0.612	Yes
TIMERISK-FINRISK	0.866	0.820	0.910	Yes
TIMERISK-PERFORMRISK	0.778	0.719	0.839	Yes
TIMERISK-PSYCHRISK	0.930	0.894	0.967	Yes
TIMERISK-REPURCHINT	0.453	0.327	0.565	Yes
TIMERISK-SOCRISK	0.676	0.617	0.763	Yes

**Notes:** FINRISK = Financial risk; PSYCHRISK = Psychological risk; PERFORMRISK = Performance risk; TIMERISK = Time risk; SOCRISK = Social risk; REPURCHINT = Repurchase intent.

The HTMT ratios for sample two (inexperienced online consumers) are displayed in table 5.9. It is evident that for sample two (inexperienced online consumers), three correlations (i.e. Psychological risk-Performance Risk for clothing; Psychological risk-Performance risk for books and Time risk-Psychological risk for books) produced upper limit ratios of above 1. These items correlated too highly with other scales, implying

that these variables are not completely distinct from each other by empirical standards. Thus, it appears that respondents in this sample did not properly distinguish between the three different variables, but rather perceived them as a single construct.

**Table 5.9 Discriminant validity assessment: Sample 2 (inexperienced online consumers)**

<b>Heterotrait-Monotrait ratio (HTMT): Clothing</b>				
	Original sample	Lower limit 2.5%	Upper limit 97.5%	Discriminant validity
PERFORMRISK-FINRISK	0.907	0.848	0.962	Yes
PSYCHRISK-FINRISK	0.764	0.666	0.863	Yes
PSYCHRISK-PERFORMRISK	0.963	0.899	1.016	<b>No</b>
PURCHINT-FINRISK	0.310	0.203	0.468	Yes
PURCHINT-PERFORMRISK	0.187	0.133	0.356	Yes
PURCHINT-PSYCHRISK	0.221	0.154	0.418	Yes
SOCRISK-FINRISK	0.611	0.534	0.756	Yes
SOCRISK-PERFORMRISK	0.546	0.479	0.695	Yes
SOCRISK-PSYCHRISK	0.557	0.502	0.694	Yes
SOCRISK-PURCHINT	0.513	0.400	0.636	Yes
TIMERISK-FINRISK	0.773	0.669	0.883	Yes
TIMERISK-PERFORMRISK	0.768	0.665	0.858	Yes
TIMERISK-PSYCHRISK	0.88	0.791	0.964	Yes
TIMERISK-PURCHINT	0.256	0.202	0.457	Yes
TIMERISK-SOCRISK	0.545	0.513	0.713	Yes
<b>Heterotrait-Monotrait ratio (HTMT): Books</b>				
	Original sample	Lower limit 2.5%	Upper limit 97.5%	Discriminant validity
PERFORMRISK-FINRISK	0.884	0.815	0.944	Yes
PSYCHRISK-FINRISK	0.766	0.68	0.855	Yes
PSYCHRISK-PERFORMRISK	0.978	0.935	1.020	<b>No</b>
PURCHINT-FINRISK	0.324	0.240	0.463	Yes
PURCHINT-PERFORMRISK	0.214	0.185	0.371	Yes
PURCHINT-PSYCHRISK	0.305	0.211	0.473	Yes
SOCRISK-FINRISK	0.587	0.518	0.745	Yes
SOCRISK-PERFORMRISK	0.547	0.478	0.701	Yes
SOCRISK-PSYCHRISK	0.566	0.508	0.711	Yes
SOCRISK-PURCHINT	0.586	0.469	0.725	Yes
TIMERISK-FINRISK	0.800	0.690	0.894	Yes
TIMERISK-PERFORMRISK	0.783	0.679	0.875	Yes
TIMERISK-PSYCHRISK	0.944	0.860	1.010	<b>No</b>
TIMERISK-PURCHINT	0.294	0.234	0.499	Yes
TIMERISK-SOCRISK	0.612	0.580	0.762	Yes

**Notes:** FINRISK = Financial risk; PSYCHRISK = Psychological risk; PERFORMRISK = Performance risk; TIMERISK = Time risk; SOCRISK = Social risk; PURCHINT = Purchase intent.

From the reliability results, it is evident that perceived social risk is of concern and possible reasons for this result should be investigated further. The variable yielded low composite reliability scores, low Cronbach alpha coefficients, weak correlations and low outer factor loadings. The decision was therefore made to investigate the factorial structure of perceived social risk, through an exploratory factor analysis (EFA), for samples one and two, to gain further insight into the nature of the variable.

#### 5.4.2 Exploratory factor analysis (EFA)

An exploratory factor analysis was used to further investigate the factorial structure of the variable perceived social risk, as the reliability analyses results pointed toward the possibility of a multi-dimensional construct (represented by more than one factor). Tables 5.10 and 5.11 display the results of the EFA. The factors represent latent variables to which every item relates and are interpreted by analysing which items provide higher loadings onto which factor.

**Table 5.10 Exploratory factor analysis of perceived social risk: Sample 1 (experienced online consumers)**

	Clothing		Books	
	Factor 1	Factor 2	Factor 1	Factor 2
SOCIALRISK1	0.20	0.64	0.30	0.58
SOCIALRISK2	-0.08	0.74	-0.07	0.71
SOCIALRISK3	0.73	0.03	0.67	0.04
SOCIALRISK4	0.46	0.46	0.53	0.33
SOCIALRISK5	0.63	0.63	0.60	-0.18
SOCIALRISK6	0.62	-0.12	0.60	-0.16
SOCIALRISK7	-0.07	0.67	-0.17	0.70
SOCIALRISK8	0.11	0.69	0.17	0.68
SOCIALRISK9	0.67	0.32	0.64	0.40
SOCIALRISK10	0.66	0.27	0.64	0.34

**Table 5.11 Exploratory factor analysis of perceived social risk: Sample 2 (inexperienced online consumers)**

	Clothing		Books	
	Factor 1	Factor 2	Factor 1	Factor 2
SOCIALRISK1	0.14	0.70	0.15	0.51
SOCIALRISK2	-0.21	0.73	-0.15	0.72
SOCIALRISK3	0.61	0.35	0.65	0.02
SOCIALRISK4	0.49	0.48	0.54	0.33
SOCIALRISK5	0.48	-0.16	0.23	-0.34
SOCIALRISK6	0.63	0.08	0.65	-0.12
SOCIALRISK7	-0.06	0.51	-0.02	0.58
SOCIALRISK8	-0.25	0.61	0.24	0.61
SOCIALRISK9	0.81	0.03	0.75	0.27
SOCIALRISK10	0.75	0.02	0.70	0.30

The EFA was performed using the Varimax rotation and Principal Components extraction method and confirmed that perceived social risk items loaded onto two factors for this sample. Tables 5.10 and 5.11 show that for sample one (experienced online consumers) and sample two (inexperienced online consumers), the EFA indicated that items 3,4,5,6,9 and 10 loaded onto the same factor while items 1,2,7 and 8 loaded onto a second factor.

Perceived social risk was subsequently divided into two sub-dimensions and renamed Retailer Reputation (items 3,4,5,6,9 and 10) [social risk 1] and Social Influences (items 1,2,7, and 8) [social risk 2], based on the content of the items that loaded onto each factor. Retailer reputation and social influences are important dimensions of perceived social risk (Aghekyan-Simonian *et al.*, 2012). Perceived social risk is relieved when consumers consult friends, family and wider social circles about their decisions and as a result of social influences, the reputation of online retailers has also become a significant factor that can increase or decrease the social risk perceived by online consumers (The Nielsen Company, 2010).

The composite reliability and AVE scores were recalculated based on the newly proposed factorial structure of perceived social risk. Tables 5.12 and 5.13 show an increase in reliability (composite reliability) and validity (average variance explained)

for the two separate perceived social risk dimensions namely, retailer reputation and social influences.

**Table 5.12 Reliability and validity scores before and after the EFA was conducted: Sample 1 (experienced online consumers)**

	Clothing		Books	
	AVE	CR	AVE	CR
<b>Before EFA:</b>				
Social risk	0.179	0.000	0.170	0.862
<b>After EFA:</b>				
Social risk 1: Retailer reputation	0.398	0.794	0.354	0.761
Social risk 2: Social influences	0.500	0.798	0.476	0.783

**Notes:** AVE = Average variance explained; CR = Composite reliability; EFA = Exploratory factor analysis.

Following the exploratory factor analysis, the composite reliability scores for sample one (experienced online consumers) increased from 0.000 to 0.794 for Social Risk 1 (Retailer Reputation) and to 0.798 for Social Risk 2 (Social Influences), for the purchase of clothing, and decreased from 0.862 to 0.761 for Social Risk 1 (Retailer Reputation) and to 0.783 for Social Risk 2 (Social Influences), for the purchase of books. However, the decrease in composite reliability for the purchase of books remains satisfactory as the scores are above 0.7. In addition to an increase in composite reliability, the average variance explained for both high (clothing) and low involvement (books) purchase situations also increased to closer proximity of 0.5. Table 5.13 displays similar results for sample two (inexperienced online consumers).

**Table 5.13 Reliability and validity scores for perceived social risk before and after the EFA was conducted: Sample 2 (inexperienced online consumers)**

	Clothing		Books	
	AVE	CR	AVE	CR
<b>Before EFA:</b>				
Social risk	0.227	0.560	0.235	0.606
<b>After EFA:</b>				
Social risk 1: Retailer reputation	0.414	0.806	0.413	0.807
Social risk 2: Social influences	0.444	0.758	0.364	0.670

**Notes:** AVE = Average variance explained; CR = Composite reliability; EFA = Exploratory factor analysis.

The composite reliability scores of perceived social risk also increased for sample two (inexperienced online consumers) after the factor analysis was conducted. The composite reliability scores increased from 0.56 to 0.806 for Social Risk 1 (Retailer Reputation) and to 0.758 for Social Risk 2 (Social Influences) for the purchase of clothing. For the purchase of books, the composite reliability also increased from 0.606 to 0.807 for Social Risk 1 (Retailer Reputation) and to 0.67 for Social Risk 2 (Social Influences). The average variance explained also increased for both purchase situations.

The results show that the reliability and validity of the perceived social risk scale increased when the variable was measured as two dimensions. In the subsequent structural model assessment, perceived social risk is analysed as a multi-dimensional construct including Social Risk 1 (Retailer Reputation) and Social Risk 2 (Social Influences).

#### **5.4.3 Structural model assessment**

The partial least squares (PLS) technique was used to assess the structural model of models and to predict relationships between different dimensions of perceived risk and online purchase and repurchase intent. PLS is recommended for predictive models and smaller sample sizes and is therefore the chosen technique in the current study. The inner structural model is concerned with paths or relationships between the five dimensions of perceived risk and purchase and repurchase intent.

First, the structural model was assessed for collinearity to determine how much multicollinearity (correlation between predictors) exists in the regression analysis. Multicollinearity (also collinearity) is a phenomenon in which two or more predictor variables in a multiple regression model are highly correlated, meaning that one can be linearly predicted from the others with a substantial degree of accuracy (Hair, Hult, Ringle & Sarstedt, 2017.) In cases of multi-collinearity, it could be difficult to assess the effect of independent variables on the dependent variables.

Second, the coefficient of determination ( $R^2$ ) was assessed to judge the predictive power of each model. Finally, the significance and relevance of the structural model relationships were assessed.

#### 5.4.3.1 Assessment of collinearity

To uncover possible problems with collinearity, the variance inflation factor (VIF) was calculated. The guideline for VIF is that it should be below five (Hair *et al.*, 2017). Tables 5.14 and 5.15 shows that the VIF values calculated for the data of this study are below five and thus deemed acceptable.

**Table 5.14 Collinearity statistics (VIF values): Sample 1 (experienced online consumers)**

	Clothing	Books
Financial risk	3.627	3.169
Psychological risk	3.537	2.954
Performance risk	4.679	4.550
Time risk	3.485	3.703
Social Risk 1: Retailer reputation	1.166	1.063
Social Risk 2: Social Influences	2.395	2.143

For sample one (experienced online consumers), table 5.14 indicates VIF values well below five for majority of the variables, suggesting that they were perceived by respondents as distinct. However, perceived performance risk yielded VIF values close to 5 (4.679 and 4.550), which suggests that perceived performance risk was potentially not distinguished clearly as a distinct concept by respondents.

**Table 5.15 Collinearity statistics (VIF values): Sample 2 (inexperienced online consumers)**

	Clothing	Books
Financial risk	2.534	2.036
Psychological risk	2.983	2.907
Performance risk	3.207	4.316
Time risk	2.602	2.729
Social Risk 1: Retailer reputation	1.075	1.027
Social Risk 2: Social Influences	1.804	1.580

The VIF values are relatively similar for sample two (inexperienced online consumers), as seen in table 5.15. For all variables, the VIF values are below five. Although still

below five, performance risk again yielded the highest VIF values of 3.207 and 4.316. Thus, multi-collinearity was established as satisfactory for the data set.

#### 5.4.3.2 Assessment of coefficient of determination ( $R^2$ )

An important measure for the assessment of the structural model is the coefficient of determination ( $R^2$ ) (Henseler, Ringle & Sinkovics, 2009). This value ( $R^2$ ) indicates the percentage of variance, in the dependent variable, that is explained by the independent variables of the conceptual model (Lowry & Gaskin, 2014).

Table 5.16 shows relatively low coefficients ( $R^2$ ) for all four purchase scenarios. A higher  $R^2$  value implies more accurate predictive abilities of the model (Hair *et al.*, 2014). The  $R^2$  value demonstrates that the model explains a significant amount of the variance in the dependent variable (i.e. purchase intent/repurchase intent). It is evident that approximately 40% of the amount of variance in purchase and repurchase intent, can be explained by the five dimensions of perceived risk. Furthermore, it is also apparent that the difference between the various models'  $R^2$  values are not large.

**Table 5.16 Coefficients of determination ( $R^2$ )**

	Clothing ( $R^2$ )	Books ( $R^2$ )
Sample 1 (experienced online consumers)	0.435	0.444
Sample 2 (inexperienced online consumers)	0.338	0.420

More specifically, for sample one (experienced online consumers), for the purchase of clothing, the five dimensions of perceived risk explain almost 44% of the variance in repurchase intent. Similarly, for the purchase of books, the five dimensions of perceived risk explain 44% of the variance in repurchase intent.

For sample two (inexperienced online consumers), for the purchase of clothing, the five dimensions of perceived risk explain almost 34% of the variance in online purchase intent, whereas for the purchase of books, it was 42%. Not all of the variance in the dependent variables (i.e. online purchase intent and repurchase intent) is explained by the five dimensions of perceived risk. To increase the coefficient of determination ( $R^2$ ), other variables, such as demographics or personality, will have to be assessed

additionally in future studies (Hair *et al.*, 2014). It is evident that perceived risk is not the only variable that influences online purchase and repurchase intent of Generation Y consumers and drivers of online shopping should be investigated for this consumer group.

#### 5.4.3.3 Assessment of path coefficients

To assess the various paths between the variables in the conceptual model, the standardised regression weights of these models were examined. Table 5.17 presents the path coefficient statistics for each model and indicates which proposed paths are significant, as well as the strength of those relevant paths. In other words, significant paths indicate a significant relationship between the said variables, and the path coefficient indicates the strength of the path (Hair *et al.*, 2014).

Path coefficient values are standardized on a range between -1 and +1 and values close to -1 or +1 are statistically significant (Hair *et al.*, 2014). Coefficients close to +1 represent strong positive relationships, while coefficients close to -1 represent strong negative relationships. Following the path coefficient statistics, the hypotheses results are presented for each respective model in the following section.

**Table 5.17 Path coefficient statistics for Sample 1 (experienced online consumers): Clothing**

Path	Path coefficient	p-value	Significant	H <sub>0</sub>
Financial risk- Repurchase intent	0.068	0.35	No	Do not reject H <sub>02A</sub>
Psychological risk- Repurchase intent	-0.421	<b>0.00*</b>	<b>Yes</b>	<b>Reject H<sub>04A</sub></b>
Performance risk- Repurchase intent	0.081	0.38	No	Do not reject H <sub>06A</sub>
Time risk- Repurchase intent	-0.090	0.20	No	Do not reject H <sub>08A</sub>
Social risk (Retailer Reputation)- Repurchase intent	0.417	<b>0.00*</b>	<b>Yes</b>	<b>Reject H<sub>010A</sub></b>
Social risk (Social Influences)- Repurchase intent	-0.243	<b>0.00*</b>	<b>Yes</b>	<b>Reject H<sub>012A</sub></b>

**Notes:** \*Significant at the p<0.05 level.

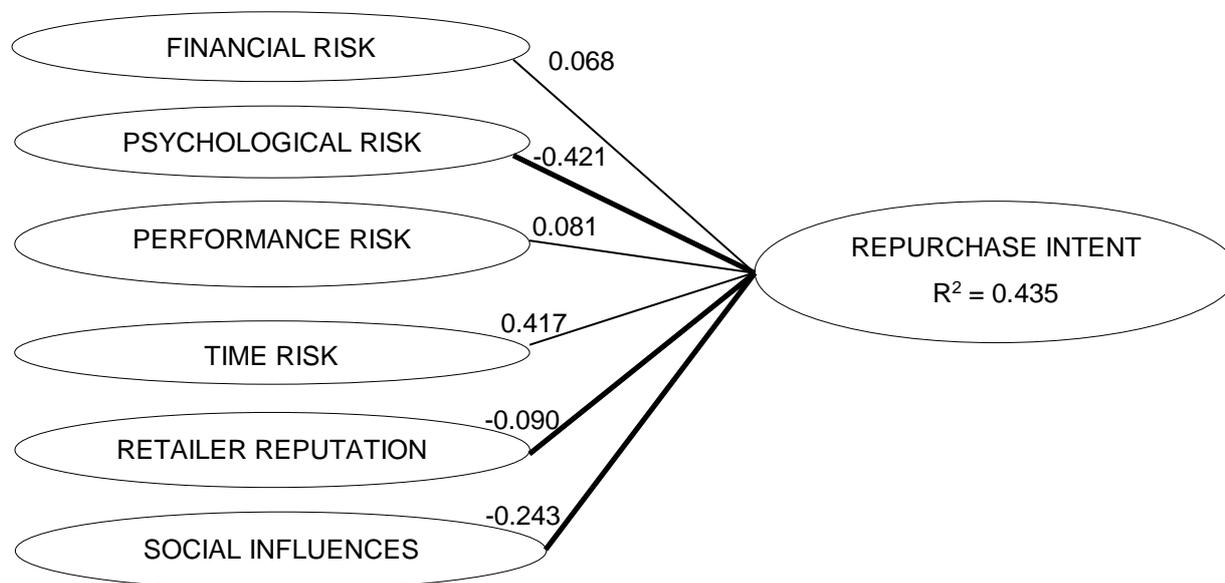
For sample one (experienced online consumers), for the purchase of clothing, perceived psychological and social risk (retailer reputation and social influences) yielded p-values below the significant level of 0.05, implying that the three factors significantly relate to the online repurchase intent of clothing. Perceived psychological risk and social risk (social influences) were found to be negatively related to repurchase intent, as hypothesised. It seems that if a consumer perceives increasing psychological or social risk, the consumers will experience a decrease in online repurchase intent.

However, the significant relationship between social risk (retailer reputation) and repurchase intent was positive. In other words, the more social risk, in terms of retailer reputation, a consumer perceives, the more that consumer will be likely to repurchase online. The positive relationship was not expected. Social risk (retailer reputation) was possibly not understood as a dimension of social risk, but rather as the reputation of an online retailer. Therefore, respondents could have interpreted the higher reputation as positive, thus increasing repurchase intent.

Perceived psychological risk was identified as the variable with the largest influence on repurchase intent, as its path coefficient of -0.421 is in closest proximity to -1. Although stronger than the effect of perceived social risk (retailer reputation) on online repurchase intent, the path coefficient of perceived psychological risk (-0.421) is relatively low, given that the desired path coefficient is +1 or -1 (Hair *et al.*, 2014).

The remaining three dimensions of perceived risk (financial, performance and time risk), with p-values of 0.35, 0.38 and 0.20 respectively ( $p < 0.05$ ), do not significantly influence the online repurchase intent of clothing. In other words, for experienced online consumers, perceived financial, performance and time risk do not influence their continued online shopping intent.

**Figure 5.2 Structural model for Sample 1 (experienced online consumers): Clothing**



**Notes:** Lines in bold indicate significance.

Figure 5.2 illustrates the structural model assessment for sample one (experienced online consumers), for the purchase of clothing. The path coefficients for every hypothesised relationship are provided and the lines in bold indicate significant relationships. Similar results were obtained for the context of purchasing books online.

**Table 5.18 Path coefficient statistics for Sample 1 (experienced online consumers): Books**

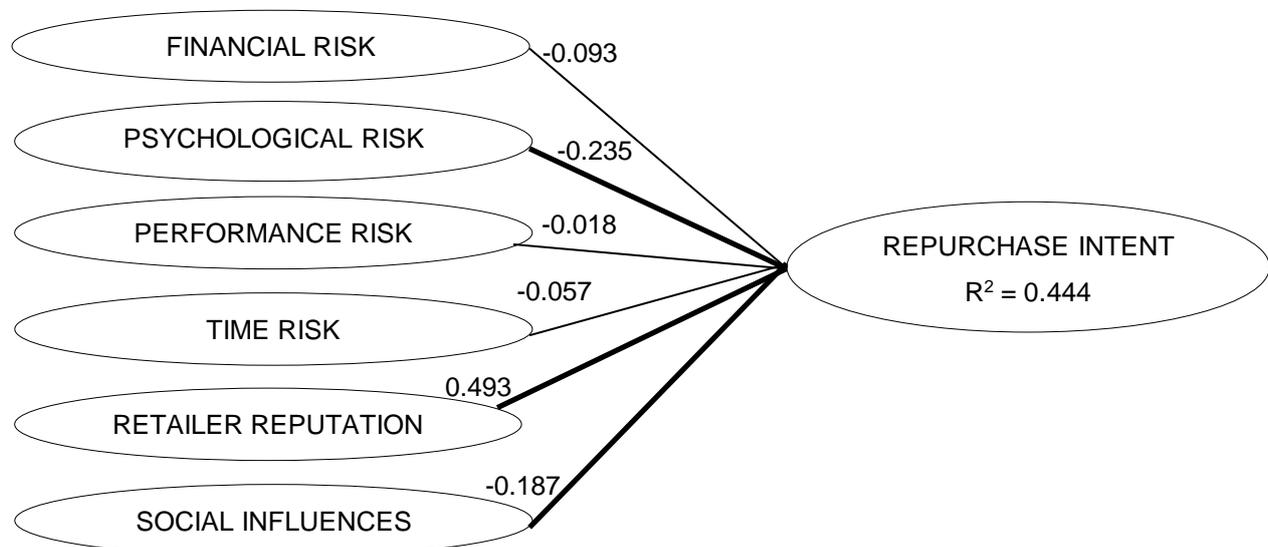
Path	Path coefficient	p-value	Significant	H <sub>0</sub>
Financial risk- Repurchase intent	-0.093	0.16	No	Do not reject H <sub>02B</sub>
Psychological risk- Repurchase intent	-0.235	<b>0.01*</b>	<b>Yes</b>	<b>Reject H<sub>04B</sub></b>
Performance risk- Repurchase intent	-0.018	0.38	No	Do not reject H <sub>06B</sub>
Time risk- Repurchase intent	-0.057	0.39	No	Do not reject H <sub>08B</sub>
Social risk (Retailer Reputation)- Repurchase intent	0.493	<b>0.00*</b>	<b>Yes</b>	<b>Reject H<sub>010B</sub></b>
Social risk (Social Influences)- Repurchase intent	-0.187	<b>0.00*</b>	<b>Yes</b>	<b>Reject H<sub>012B</sub></b>

**Notes:** \*Significant at the p<0.05 level.

For sample one (experienced online consumers), for the purchase of books, perceived psychological risk and social risk (retailer reputation and social influences) showed significant relationships with online repurchase intent ( $p < 0.05$ ). The p-values (0.01, 0.00 and 0.00) of these dimensions of perceived risk were below the significance level of 0.05. Perceived social risk (retailer reputation) has the largest influence on online repurchase intent with a path coefficient (0.493), in closest proximity to +1. Despite the strong effect of perceived social risk, in terms of retailer reputation, the path coefficient (0.493) remains relatively low, as the desired path coefficient for any significant relationship is +1 or -1 (Hair *et al.*, 2014).

As expected, perceived psychological risk and social risk (social influences) are negatively related to repurchase intent. Therefore, the more psychological or social risk (in terms of social influences) a consumer perceives, the less likely a consumer will be to continue purchasing online. Similar to the context of clothing, perceived social risk (retailer reputation) is positively related to repurchase intent for the context of books. As previously noted, the items measuring perceived social risk (retailer reputation) were possibly not perceived to measure risk, but rather the reputation of the online retailer, justifying the positive relationship. The interpretation of the items by respondents had an influence on this result. Therefore, the stronger the reputation of an online retailer, the more likely a consumer will be to continue purchasing online.

Perceived financial, performance and time risk are not significantly related to repurchase intent, with p-values above the significance level of 0.05 (i.e. 0.16, 0.38 and 0.39 respectively). For the purchase of books, experienced consumers in this sample do not perceive financial, performance or time risk when shopping online for books.

**Figure 5.3 Structural model for Sample 1 (experienced online consumers):****Books**

**Notes:** Lines in bold indicate significance.

Figure 5.3 provides an illustration of the assessment of the structural model for sample one (experienced online consumers) for the purchase of books. The model indicates that perceived psychological and social risk significantly relate to online repurchase intent and provides the relevant path coefficients. The results for sample two (inexperienced consumers) are outlined in the following section.

**Table 5.19 Path coefficient statistics for Sample 2 (inexperienced online consumers): Clothing**

Path	Path coefficient	p-value	Significant	H <sub>0</sub>
Financial risk- Purchase intent	-0.193	<b>0.03*</b>	<b>Yes</b>	<b>Reject H<sub>01A</sub></b>
Psychological risk- Purchase intent	-0.055	0.61	No	Do not reject H <sub>03A</sub>
Performance risk- Purchase intent	0.028	0.81	No	Do not reject H <sub>05A</sub>
Time risk- Purchase intent	-0.061	0.58	No	Do not reject H <sub>07A</sub>
Social risk (Retailer Reputation)- Repurchase intent	0.486	<b>0.00*</b>	<b>Yes</b>	<b>Reject H<sub>09A</sub></b>
Social risk (Social Influences)- Repurchase intent	-0.123	0.14	No	Do not reject H <sub>011A</sub>

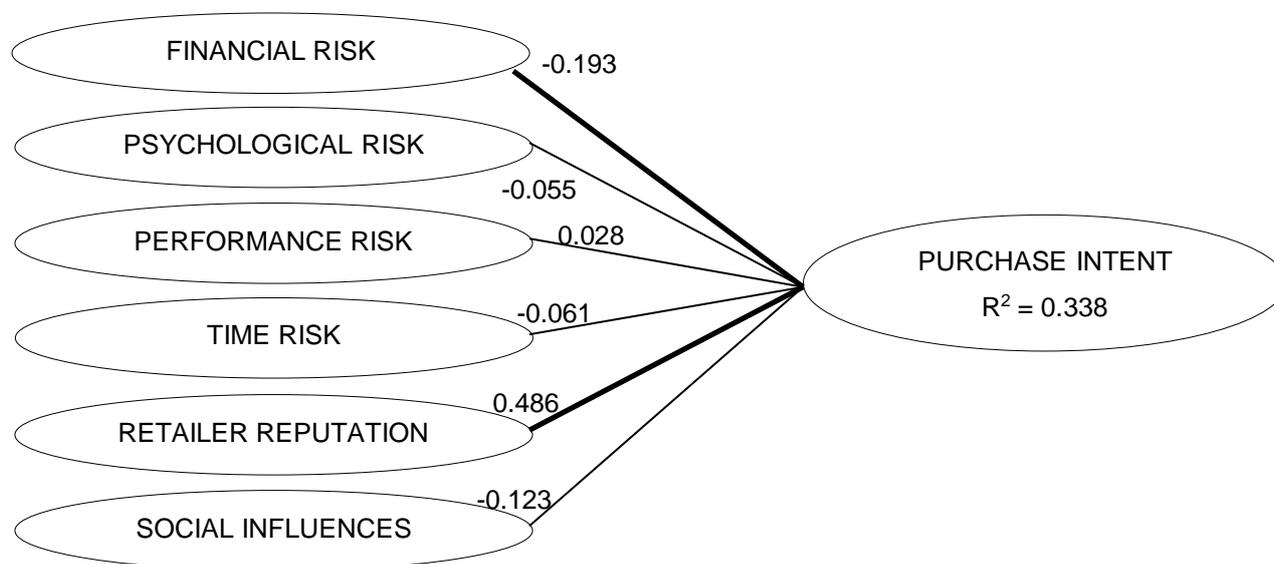
**Notes:** \*Significant at the p<0.05 level.

The structural model for sample two (inexperienced online consumers), for the purchase of clothing, shows that perceived financial risk and social risk (retailer reputation) have a significant influence on online purchase intent. These two dimensions of perceived risk yielded p-values below the significance level of 0.05 (0.03 and 0.00 respectively). The effect of perceived social risk (retailer reputation) on online purchase intent is larger than the effect of perceived financial risk, as perceived social risk (retailer reputation) yielded a path coefficient (0.486), in closer proximity to +1. Although stronger than the effect of perceived financial risk (with a path coefficient of -0.193), the path coefficient of perceived social risk (retailer reputation), 0.486 is still relatively low, given that the desired path coefficient would be +1 or -1 (Hair *et al.*, 2014).

The relationship between perceived financial risk and online purchase intent is negative, as expected. It is expected that the more financial risk a consumer perceives, the lower the online purchase intent of that consumer will be. However, the relationship between perceived social risk (retailer reputation) and online purchase intent is positive. The result asserts that the more social risk a consumer perceives, in terms of retailer reputation, the more likely a consumer is to purchase online. It is possible that perceived social risk (retailer reputation) was not understood by respondents as an element of social risk, but rather as the reputation of an online retailer.

The remaining dimensions of perceived risk (psychological risk, performance risk, time risk and social risk [social influences]) do not significantly influence online purchase intent, for the context of clothing. These dimensions of perceived risk yielded p-values above the significance level of 0.05 (i.e. 0.61. 0.81. 0.58 and 0.14, respectively).

**Figure 5.4 Structural model for Sample 2 (inexperienced online consumers): Clothing**



**Notes:** Lines in bold indicate significance.

Figure 5.4 provides an illustration of the assessment of the structural model for sample two (inexperienced online consumers) for the purchase of clothing. The path coefficients for every variable are provided on the model and lines in bold indicate significant relationships. Similar results were obtained for sample two, the context of purchasing books online.

**Table 5.20 Path coefficient statistics for Sample 2 (inexperienced online consumers): Books**

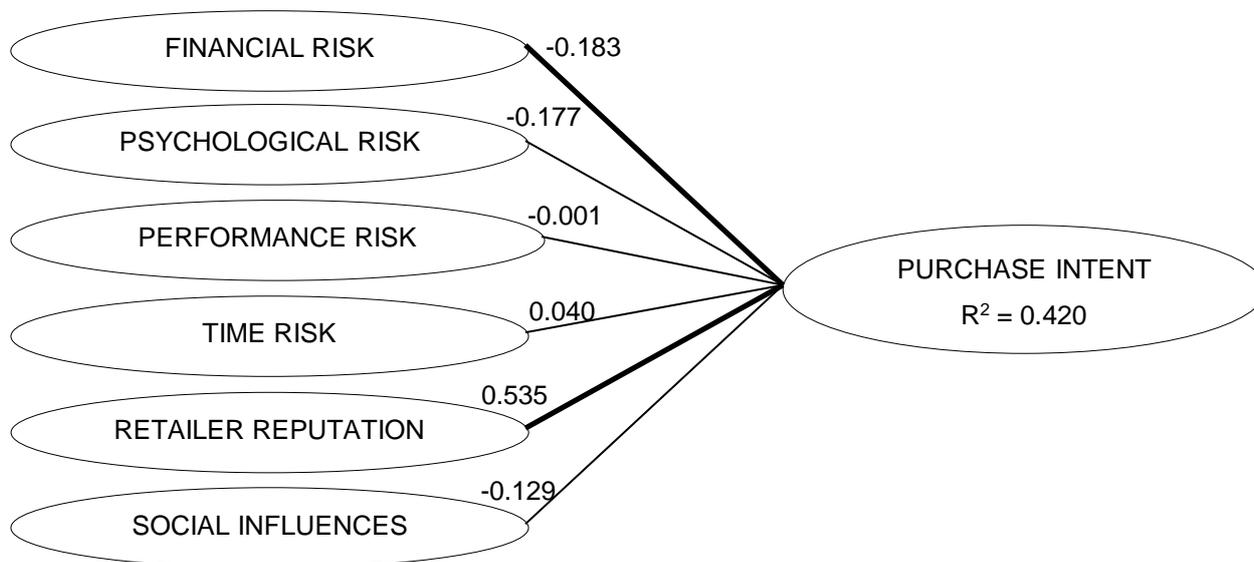
Path	Path coefficient	p-value	Significant	H <sub>0</sub>
Financial risk- Purchase intent	-0.183	<b>0.03*</b>	<b>Yes</b>	<b>Reject H<sub>01B</sub></b>
Psychological risk- Purchase intent	-0.177	1.00	No	Do not reject H <sub>03B</sub>
Performance risk- Purchase intent	-0.001	0.16	No	Do not reject H <sub>05B</sub>
Time risk- Purchase intent	0.04	0.68	No	Do not reject H <sub>07B</sub>
Social risk (Retailer Reputation)- Repurchase intent	0.535	<b>0.00*</b>	<b>Yes</b>	<b>Reject H<sub>09B</sub></b>
Social risk (Social Influences)- Repurchase intent	-0.129	0.14	No	Do not reject H <sub>011B</sub>

**Notes:** \*Significant at the p<0.05 level.

Perceived financial risk and perceived social risk (retailer reputation) again significantly influence online purchase intent ( $p < 0.05$ ), with p-values of 0.03 and 0.00, respectively. The significant relationship between perceived financial risk and purchase intent is negative. Therefore, an increase in perceived financial risk will result in a decrease in online purchase intent. However, the relationship between perceived social risk (retailer reputation), and online purchase intent is positive. This could be due to the content of the items that loaded onto Social Risk 1 (retailer reputation), following the exploratory factor analysis performed on perceived social risk. Perceived social risk (retailer reputation) was possibly not interpreted as an element of social risk, but rather as the reputation of an online retailer. The positive relationship would therefore be justified, as the stronger the reputation of a retailer, the more likely a consumer would be to purchase online.

Perceived social risk (retailer reputation) had the largest influence on online repurchase intent with a path coefficient of 0.535. Although stronger than the effect of perceived financial risk on online purchase intent (-0.183), the path coefficient of perceived social risk (retailer reputation) 0.535 is only moderately strong, given that the desired path coefficient would be +1 or -1 (Hair *et al.*, 2014).

Perceived psychological, performance, time risk and social risk (social influences) do not significantly affect online purchase intent, because these variables yielded p-values of 1.00, 0.16, 0.68 and 0.14 ( $p < 0.05$ ), respectively. Figure 5.5 presents the structural model assessment for sample two (inexperienced online consumers), for the purchase of books. The path coefficients for every variable are provided on the model and lines in bold indicate significant relationships.

**Figure 5.5 Structural model for Sample 2 (inexperienced online consumers):****Books**

**Notes:** Lines in bold indicate significance.

From the assessment of path coefficients, few of the proposed hypotheses were rejected. The hypotheses test results are discussed in the following section.

#### 5.4.4 General discussion of results

A general result from the current study is that respondents perceived less risk with regards to online shopping than expected. Of the five dimensions of perceived risk, only two (psychological and social risk) were found to have a significant effect on the online repurchase intent of experienced consumers and only two dimensions of perceived risk (financial and social risk) were found to have a significant effect on the online purchase intent of inexperienced consumers. It was expected, for example, that perceived performance and time risk would significantly affect the online purchase intent of South African consumers as it included aspects of online shopping, such as delivery delays and poor Internet infrastructure.

A second general result from the current study is that the results did not differ for the context of high and low involvement products (i.e. clothing or books). It was expected that consumers would perceive more risk when purchasing clothing online, but instead, the same dimensions of perceived risk were significant for both purchase situations. Possible explanations were formulated to explain these findings.

Firstly, it is possible that consumers decrease the risk they perceive with online shopping by purchasing only basic items. For example, consumers only purchase a black shirt online and not swimwear. The t-shirt, as a clothing item, remains a high involvement product, but requires less involvement than other clothing items, such as swimwear, and therefore, consumers perceive less risk when shopping online. It is also likely that consumers decrease the risk they perceive when shopping online, by only using familiar retailers that they are comfortable with. In this way, consumers are accustomed to the brand, the material and the sizes and perceive less risk when purchasing such items online.

Another possible justification for the low levels of perceived risk among respondents in the current study is that, in section A of the survey, respondents indicated that they do not spend large amounts of money online. The majority of respondents indicated that they only spend R500 or less online. It has been established that price is positively correlated to risk and that the higher the price of an item, the more risk a consumer perceives with the purchase (Pappas, 2016). Therefore, respondents in the current study would perceive less risk when purchasing lower priced items.

The current study specifically targeted the Generation Y consumer cohort as these consumers are used to technology and the Internet in their everyday life. However, this could also be a possible explanation for the low levels of perceived risk among respondents in the study. It is likely that respondents do not perceive high risk levels with online shopping, as they are comfortable with using Internet technologies in many aspects of their lives and are aware that online shopping is successful. This would explain especially why respondents did not report high levels of perceived performance risk. It is possible that higher levels of perceived risk would be found among older consumers who did not grow up with Internet and who might be more sceptical about abandoning traditional shopping methods for online shopping.

Lastly, as a result of the low levels of risk that respondents in the current study perceive when shopping online and in addition to the finding that retailer reputation had a significant effect on online purchase intent for all four purchase situations, it could be concluded that consumers use heuristics to simplify their decision-making. When consumers apply heuristics in decision-making, they access their subconscious mind

(Sudana, 2011). The heuristic principle is a shortcut method of decision-making that is based on reasonable rationale and speeds up decision-making. It is likely that consumers use the reputation of an online retailer as an overall evaluation for the entire online shopping process. In other words, respondents in the study assess the delivery, website usability, privacy and other aspects of online shopping using reputation. In this way, retailer reputation is a very influential element in consumers' decision to shop online.

The finding that retailer reputation was significant in all four purchase situations emphasises the importance of reputation in mitigating risk. A strong, positive reputation will decrease the risk that consumers perceive when shopping online (Kim, Ferrin & Rao, 2008) and is likely to increase purchase intent. A reputable brand contains the perceived risk associated with online shopping as consumers infer that the retailer is likely to continue its positive behaviour.

#### 5.4.5 Summary of empirical assessment of hypotheses

The following section provides the overall results of the tested hypotheses.

H <sub>01A</sub>	There is no relationship between perceived financial risk and online purchase intent when shopping for clothing.	Rejected
H <sub>01B</sub>	There is no relationship between perceived financial risk and online purchase intent when shopping for books.	Rejected
H <sub>02A</sub>	There is no relationship between perceived financial risk and online repurchase intent when shopping for clothing.	Not rejected
H <sub>02B</sub>	There is no relationship between perceived financial risk and online repurchase intent when shopping for books.	Not rejected

Based on findings from the structural model assessment, the result of the effect that perceived financial risk has is in partial agreement with previous research (Pantano, 2014; Pappas, 2016), confirming its effect on online purchase and repurchase intent. Perceived financial risk had only a significant effect on purchase intent, for the purchase of clothing and books, but had no effect on online repurchase intent. In other words, consumers who are new to online shopping perceive financial risk when purchasing high or low involvement products online. The null hypotheses H<sub>01A</sub>, H<sub>01B</sub>, are rejected, but the null hypotheses H<sub>02A</sub> and H<sub>02B</sub> are not rejected.

H <sub>03A</sub>	There is no relationship between perceived psychological risk and online purchase intent when shopping for clothing.	Not rejected
H <sub>03B</sub>	There is no relationship between perceived psychological risk and online purchase intent when shopping for books.	Not rejected
H <sub>04A</sub>	There is no relationship between perceived psychological risk and online repurchase intent when shopping for clothing.	Rejected
H <sub>04B</sub>	There is no relationship between perceived psychological risk and online repurchase intent when shopping for books.	Rejected

When consumers struggle to use the Internet or experience difficulties with online shopping, it has been found to significantly influence the consumers' purchase and repurchase intent (Hsieh & Tsao, 2014). Thus, the results of the current study support research that explains when respondents perceive psychological risk with regards to online shopping, it affects their online repurchase intent. It is evident that perceived psychological risk affects the repurchase intent of experienced online consumers, but not the purchase intent of inexperienced online consumers. It is interesting to note that consumers who are accustomed to online shopping and who understand the process of purchasing online, perceive psychological risk.

Ultimately, based on the findings of the structural model assessment, hypothesis H<sub>04A</sub> and H<sub>04B</sub> are rejected, indicating that there is a significant negative relationship between perceived psychological risk and consumers' online repurchase intent.

H <sub>05A</sub>	There is no relationship between perceived performance risk and online purchase intent when shopping for clothing.	Not rejected
H <sub>05B</sub>	There is no relationship between perceived performance risk and online purchase intent when shopping for books.	Not rejected
H <sub>06A</sub>	There is no relationship between perceived performance risk and online repurchase intent when shopping for clothing.	Not rejected
H <sub>06B</sub>	There is no relationship between perceived performance risk and online repurchase intent when shopping for books.	Not rejected

Hypotheses H<sub>05A</sub>, H<sub>05B</sub>, H<sub>06A</sub> and H<sub>06B</sub> are not rejected, which suggests that perceived performance risk does not act as a barrier to online shopping. There is no significant relationship between perceived performance risk and online purchase or repurchase intent. This finding could suggest that consumers do not perceive risk with regards to

the performance of a website or a product ordered online, and are aware that online shopping in South Africa is successful.

H <sub>07A</sub>	There is no relationship between perceived time risk and online purchase intent when shopping for clothing.	Not rejected
H <sub>07B</sub>	There is no relationship between perceived time risk and online purchase intent when shopping for books.	Not rejected
H <sub>08A</sub>	There is no relationship between perceived time risk and online repurchase intent when shopping for clothing.	Not rejected
H <sub>08B</sub>	There is no relationship between perceived time risk and online repurchase intent when shopping for books.	Not rejected

Similarly, to perceived performance risk, based on the structural model assessment, H<sub>07A</sub>, H<sub>07B</sub>, H<sub>08A</sub> and H<sub>08B</sub> are also not rejected. No significant relationship was found between perceived time risk and online purchase or repurchase intent. Thus, it cannot be concluded that delivery delay, time spent shopping online or time spent searching for information online, affects consumers' online purchase or repurchase intent.

As a result of the exploratory factor analysis conducted on the construct of perceived social risk and therefore, the introduction of the variables, 'retailer reputation' and 'social influences,' new hypotheses were constructed for the PLS analysis.

H <sub>09A</sub>	There is no relationship between retailer reputation and online purchase intent when shopping for clothing.	Rejected
H <sub>09B</sub>	There is no relationship between retailer reputation and online purchase intent when shopping for books.	Rejected
H <sub>010A</sub>	There is no relationship between retailer reputation and online repurchase intent when shopping for clothing.	Rejected
H <sub>010B</sub>	There is no relationship between retailer reputation and online repurchase intent when shopping for books.	Rejected

Perceived social risk (retailer reputation) was the only independent variable that significantly influences online purchase and repurchase intent, for the purchase of clothing and books (i.e. all four purchase situations). Thus, a significant relationship exists between retailer reputation and online purchase and repurchase intent, for the purchase of clothing and books. However, for all four purchase situations, the relationship was positive. In other words, the more social risk (retailer reputation) a consumer perceives, the more likely that consumer is to purchase online.

This result is in contrast to the negative relationship that was predicted between perceived social risk (retailer reputation) and online purchase intent. Many items were possibly not understood as representing risk, but rather as representing the reputation of an online retailer. Therefore, the stronger the reputation of a retailer, the more likely consumers are to purchase. The significance of retailer reputation in all four purchase situations highlights the importance of reputation for online retailers. The null hypotheses  $H_{09A}$ ,  $H_{09B}$ ,  $H_{10A}$  and  $H_{10B}$  are rejected.

$H_{011A}$	There is no relationship between social influences and online purchase intent when shopping for clothing.	Not rejected
$H_{011B}$	There is no relationship between social influences and online purchase intent when shopping for books.	Not rejected
$H_{012A}$	There is no relationship between social influences and online repurchase intent when shopping for clothing.	Rejected
$H_{012B}$	There is no relationship between social influences and online repurchase intent when shopping for books.	Rejected

Perceived social risk (social influences) had a significant effect on online repurchase intent, for the purchase of clothing and books. The relationship between perceived social risk (social influences) and online repurchase intent was negative, as expected. Therefore, an increase in perceived social risk (social influences) will result in a decrease in repurchase intent.

The null hypotheses  $H_{12A}$  and  $H_{12B}$  are rejected, which indicates that social risk is an important factor in the repurchase intent of experienced online consumers. Consumers who are accustomed to online shopping can still perceive social risk as a result of interaction with other consumers. However, the null hypotheses  $H_{11A}$  and  $H_{11B}$  are not rejected. The same significant effect was not found for consumers who are new to online shopping and therefore, no significant relationship exists between social influences and online purchase intent.

## 5.5 CONCLUSION: CHAPTER FIVE

This chapter addresses the results obtained during the primary research phase of the current study. The first section of this chapter provides insight into the characteristics of the sample data by means of descriptive statistics, while the second section of the chapter provides insight into the analysis of the data, by means of inferential statistics. The hypothesised relationships between the dimensions of perceived risk and online

purchase and repurchase intent were tested. Additionally, the results of the measurement model allowed for the determination of construct reliability, convergent validity and discriminant validity of the constructs and items used in the structural model. The following chapter will provide recommendations based on the results outlined in this chapter.

## CHAPTER SIX

### SUMMARY, CONCLUSIONS AND MANAGERIAL IMPLICATIONS

#### 6.1 INTRODUCTION

This chapter addresses the empirical findings presented in chapter five. The results are discussed in more detail and conclusions are drawn. The first section of the chapter provides a summary of the empirical findings, followed by managerial implications, including practical considerations and strategies for online retailers. The chapter concludes with the limitations of the study and suggestions for possible future research.

#### 6.2 SUMMARY OF EMPIRICAL FINDINGS

In this section, conclusions are presented as to the relationships between perceived risk and online purchase and repurchase intent, for the context of clothing and books. Paragraphs 6.2.1 to 6.2.6 elude to the influence of each dimension of perceived risk, on online purchase and repurchase intent. Table 6.1 presents a summary of the relationships proven to be significant.

**Table 6.1 Summary of relationships between perceived risk dimensions and online purchase and repurchase intent**

	Sample 1: Experienced online consumers (Online repurchase intent)		Sample 2: Inexperienced online consumers (Online purchase intent)	
	Clothing	Books	Clothing	Books
Perceived financial risk	Not significant	Not significant	Significant (-)	Significant (-)
Perceived psychological risk	Significant (-)	Significant (-)	Not significant	Not significant
Perceived performance risk	Not significant	Not significant	Not significant	Not significant
Perceived time risk	Not significant	Not significant	Not significant	Not significant
Perceived social risk: Retailer reputation	Significant (+)	Significant (+)	Significant (+)	Significant (+)
Perceived social risk: Social influences	Significant (-)	Significant (-)	Not significant	Not significant

**Notes:** +/- indicate significant positive or negative relationships.

### **6.2.1 The relationship between perceived financial risk and online purchase and repurchase intent**

A negative relationship was expected between perceived financial risk and online purchase and repurchase intent, for the context of clothing and books, as it was hypothesised that the more financial risk a consumer perceives, the less likely the consumer will be to purchase online. Results from the structural model only indicated a significant negative relationship ( $p < 0.05$ ) between perceived financial risk and online purchase intent (see table 6.1), for the context of clothing and books.

The significant negative relationship between perceived financial risk and online purchase intent suggests that inexperienced consumers' assessment of privacy and security concerns has an impact on consumers' willingness to purchase online. Thus, if a consumer has not shopped online before and believes that it is not safe (e.g. fears that credit card details will be misused), the consumer will perceive greater risk with regards to shopping online. This result is consistent with previous literature, where it has been reported by Pantano (2014), that when using the Internet to purchase products, the fundamental financial risk that consumers perceive is often related to security and privacy concerns.

The relationship between perceived financial risk and online purchase intent was found to be significant for the context of clothing and books. According to the current study, consumers who are not accustomed to shopping online perceive financial risk, irrespective of the product being considered.

No significant relationship was found between perceived financial risk and online repurchase intent (see table 6.1). It is evident that consumers who are accustomed to online shopping in South Africa have overcome the financial risk barrier and understand that online shopping is safe and secure. It is important for online retailers to ensure that new online consumers are knowledgeable on the security efforts to curb online financial fraud, as it has been proven that once this fear is relieved, consumers' online financial risk decreases (Aghekyan-Simonian *et al.*, 2012).

### **6.2.2 The relationship between perceived psychological risk and online purchase and repurchase intent**

It was hypothesised that the more psychological risk a consumer perceives, the less likely the consumer will be to purchase online. A negative relationship was expected between perceived psychological risk and online purchase and repurchase intent, for the context of clothing and books. Results from the structural model indicated only a significant negative relationship ( $p < 0.05$ ) between perceived psychological risk and online repurchase intent (see table 6.1), for both contexts of clothing and books.

The significant negative relationship between perceived psychological risk and online repurchase intent, implies that consumers' assessment of website usability, as well as the extent to which they believe they can easily locate information and products online, affects risk perception. Also, when a consumer cannot examine a product before purchase, the consumer's risk perception of online shopping will increase. The result is consistent with the literature by Pappas (2016), which explains that psychological risk has been found to affect the purchasing decision of consumers and clarifies why many consumers purchase a product online, only after examining it in-store.

The significant negative relationship also implies that although consumers are experienced with purchasing online, many continue to perceive psychological risk with every online shopping situation. Online retailers have to persist to help consumers trust the online shopping process fully. It will likely take time for the majority of South African consumers to make a mental switch from in-store shopping to online shopping and psychological aspects (such as intangibility and website usability) may hinder this process.

For inexperienced online consumers in the study, psychological risk is not a significant barrier to online shopping. A possible explanation for this could be that consumers who have not purchased online previously, are not yet aware of psychological factors (website usability, evaluation of products) that may hinder the online purchasing process, and only become aware of these aspects once they shop online.

The effect of perceived psychological risk on experienced online consumers was significant for the context of clothing and books (see table 6.1). In other words,

experienced online consumers continue to perceive psychological risk when shopping online for clothing and books. Irrespective of the product or purchase involvement, websites that are easy to use and information that is easy to understand are crucial.

### **6.2.3 The relationship between perceived performance risk and online purchase and repurchase intent**

Results from the structural model indicated no significant relationship between perceived performance risk and online purchase or repurchase intent (see table 6.1), for neither the context of clothing or books. This result is in contrast to what was expected (i.e. a negative relationship between perceived performance risk and online purchase and repurchase intent).

Because performance risk does not seem to affect the risk perception of online consumers in the current study, it implies that consumers do not perceive performance risk with regards to the performance of a website or product purchased online. This is in contrast to previous literature by Pappas (2016), which explains that perceived performance risk of online shopping is increased by website factors, such as the time spent searching for information, uncertainty regarding after-sales service and the difficulty of navigation functions on a website. Research by Hsieh and Tsao (2014) support the research by Pappas (2016), and explains how the lack of physical evaluation of a product, prior to purchase, increases product risk as an element of perceived performance risk.

For experienced and inexperienced consumers in the study, the effect of perceived performance risk was not significant (see table 6.1). It could be argued that online consumers in the current study are aware that online shopping processes in South Africa are efficient and that products can be returned in the case of an unsatisfactory experience. Therefore, the current study cannot pose elements of perceived performance risk as reasons for the slow growth of online shopping in South Africa. The finding is not congruent with previous research and thus presents future research opportunities, to investigate the effect of perceived performance risk on younger South African online consumers.

#### **6.2.4 The relationship between perceived time risk and online purchase and repurchase intent.**

It was expected that the more risk a consumer perceives, the less likely the consumer will be to purchase online. A negative relationship between perceived time risk and online purchase and repurchase intent was hypothesised, for the context of clothing and books. Similar to perceived performance risk, the results from the structural model indicated no significant relationship between perceived time risk and online purchase or repurchase intent (see table 6.1).

The lack of significant relationship between perceived time risk and online purchase and repurchase intent, indicates that perceived time risk has an insignificant effect on the online purchase and repurchase intent of consumers in the current study. This finding is in contrast to previous research, which cites dysfunctional websites, poor interactivity and delivery delays as barriers to online shopping, because convenience and time saving are often major motivations for shopping online (Constantinides, 2004). Delivery delay is a major issue in South Africa (Study reveals that e-commerce is on the rise in South Africa, 2015) and therefore, it was expected that respondents would perceive time risk when shopping online.

The non-significant relationship, indicated in the structural model, can be explained by the fact that most online shopping experiences offer time savings and convenience and therefore, dysfunctional websites are not often encountered. However, in general, South African online consumers often struggle with delivery services and therefore, a suggestion for future research would be to investigate the effect of delivery delay on consumers' online shopping intention in South Africa.

#### **6.2.5 The relationship between perceived social risk (retailer reputation) and online purchase and repurchase intent**

A negative relationship was hypothesised between perceived social risk (retailer reputation) and online purchase and repurchase intent, for the context of clothing and books. Results from the structural model indicated significant relationships ( $p < 0.05$ ) between perceived social risk (retailer reputation) and both online purchase and repurchase intent (see table 6.1), for both contexts of clothing and books. The null hypotheses for all four purchase situations ( $H_{09A}$ ,  $H_{09B}$ ,  $H_{100A}$  and  $H_{100B}$ ) were rejected.

However, in contrast to what was expected, the relationships between social risk (retailer reputation) and online purchase and repurchase intent were positive.

The significant positive relationships between perceived social risk (retailer reputation) and online purchase and repurchase intent could possibly be explained by the wording of the items used to measure social risk (retailer reputation). It is possible that, because of the content of the items, respondents did not interpret the items to measure a dimension of perceived risk. Instead, respondents understood the items to measure the effect of reputation of online retailers. In this way, the positive relationship would be justified, as an increase in retailer reputation would result in an increase in online purchase or repurchase intent.

Perceived social risk (retailer reputation) is the only variable that was significant in all four purchase situations. If the above mentioned postulation is taken into consideration, the finding is in agreement with Radomir et al. (2014) as it shows that retailer reputation drives online purchase and repurchase intent. As explained by Lee et al. (2011), good reputations provide online retailers with a buffering effect against the negative consequences of service failures, and decrease perceived social risk associated with online shopping. This result emphasises the importance of a strong, positive reputation for online retailers, as an umbrella for all other aspects that enhance the online shopping experience.

#### **6.2.6 The relationship between perceived social risk (social influences) and online purchase and repurchase intent.**

A negative relationship was again expected between perceived social risk (social influences) and online purchase and repurchase intent, for the context of clothing and books. Results from the structural model indicated only a significant relationship ( $p < 0.05$ ) between perceived social risk (social influences) and online repurchase intent (see table 6.1), for the contexts of clothing and books.

The significant relationship between perceived social risk (social influences) and online repurchase intent implies that consumers' assessment of information obtained from inter-personal sources and the opinions of other consumers, affect the continued purchase behaviour of experienced online consumers. This result is consistent with

results from a study by The Nielsen Company (2010), which found that while consumers read online reviews about products, opinions from friends and family are often trusted more (The Nielsen Company, 2010).

The current study shows that influences from social parties could affect the online repurchase intent of consumers at any stage. Despite their experience, online consumers can be influenced to refrain from purchasing from a specific online retailer, or to suspend their online purchase behaviour entirely. This result links to previous research (Walsh, Albrecht, Kunz & Hofacker, 2016), which shows that retailer reputation is of great importance to online retailers. Although consumers are experienced with online shopping, it remains a new phenomenon that most consumers still need to adopt fully and therefore, even experienced online consumers are susceptible to influences from social sources.

Also, the significant negative relationship between perceived social risk (social influences) and online repurchase intent was found for both contexts of clothing and books (see table 6.1). Perceived social risk is not less in certain product categories, but is an important barrier to online shopping for most purchase situations.

No significant relationship was found between perceived social risk (social influences) and online purchase intent (see table 6.1), which indicates that consumers who are new to online shopping do not yet perceive social risk, in terms of social influences. It is possible that consumers only become aware of social risk when they shop online. However, it is also likely that consumers who have not yet made online purchases, could be further discouraged by negative social influences and online retailers need to pay attention to consumers' perceptions of their brand or firm. Further managerial implications and recommendations are presented in the following sections.

### **6.3 MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS**

The section considers how the results may affect online retailers in South Africa and what these firms can do to increase their online sales, specifically among Generation Y consumers. Recommendations are made, given the findings of the primary research, while the section also analyses the secondary research to make further recommendations.

### **6.3.1 Managerial implications of the descriptive data analysis**

The descriptive data, from section A of the survey, presents the researcher with information about the technology use of respondents (i.e. Generation Y consumers in South Africa). It is clear from the descriptive results that respondents have constant access to the Internet and that the current study cannot attribute the slow growth of online shopping to a lack of Internet access.

Most respondents reported that they have previously browsed online for certain products, but continue to make purchases in-store. In addition, most respondents also indicated that they are aware of online retailers and would consider themselves to be 'technologically enabled.' This presents an opportunity for retailers, specifically online retailers with an established in-store presence, to attract consumers to their online platform.

The shift from in-store to online should not be overwhelming for the majority of consumers, who are accustomed to Internet technologies. However, consumers remain hesitant to fully adopt online shopping. As online shopping is still in the early stages of growth in South Africa (E-commerce lags in South Africa, 2015), online retailers could assist consumers in adopting online shopping by promoting their online presence in combination with a brick-and-mortar store. For example, The Guardian (2016) reported that, like twenty other US online retailers, Amazon opened their first bookstore in Seattle in 2015. Similarly, in South Africa, online retailer, Yuppiechef launched their first brick-and-mortar store in Cape Town in 2017 (Groenewald, 2017). The purpose of a physical presence for these online retailers is to form closer relationships with consumers, promote brand awareness and increase online traffic and sales (Walsh, 2016).

Forrester Research predicts that the importance of omni-channel (multiple channel) brands is increasing, as the online environment is becoming crowded, expensive and difficult to capture (Walsh, 2016). Trend analyst, Dion Chang, also advocates that omni-channel brands in South Africa will gradually attract consumers to online shopping (May, 2017). He continues to explain that many South African consumers conduct research and comparative shopping online, but make purchases in-store. An

omni-channel brand offers various advantages, such as that consumers already trust the brand or retailer and are motivated to engage in all touchpoints of the brand.

The emphasis of the current study is on the importance of retailers to launch an online platform, but alternatively, purely online retailers in South Africa (e.g. Takealot.com) could consider opening a brick-and-mortar store. Otherwise, to overcome the high costs associated with opening a store, online retailers could consider stocking their products in an existing store. For example, South African online athleisure brand, Move Pretty, stocks some clothing items in local boutiques and gyms.

It is imperative for retailers to create a seamless experience for consumers, whether they are shopping online or in-store. For example, retailers could launch a smartphone app for consumers to browse and compare products, as well as install digital in-store tools, such as interactive catalogues and price-checkers. Consumers should be able to purchase online and pick-up in-store, or purchase in-store and have products delivered. Research has shown that the more channels a consumer uses, the more money is spent on the brand (Sopadijeva, Dholakia & Benjamin, 2017).

It is evident from the current study that most consumers do not need to be introduced to the phenomenon of online shopping, but do need to be motivated to use online shopping. The need for motivation possibly stems from the risks that consumers perceive regarding the online process, although not always realistic. Retailers need to address these risks and make consumers comfortable with online shopping. One way that online retailers could achieve this is by simplifying the online shopping process. For example, retailers should install a 'buy' button below the image of every product, to entice browsing consumers, to select and pay.

Online payments and other financial aspects are large sources of apprehension for most online consumers in South Africa (Jooste, 2015). Results from the descriptive data of the current study show that most respondents do not own a credit card. It is important that online retailers consider younger Generation Y consumers, who are able to access the Internet and able to make online purchases, but who may not have the same financial means as older consumers. Online retailers should offer alternative payment methods, such as an electronic funds transfer (EFT) option or third party

platforms (e.g. PayPal). By reducing the financial risk barriers to online shopping, retailers will further enable consumers to purchase online and financial risk barriers should also be addressed for mobile purchases.

Although majority of the experienced online consumer respondent group (n=416) indicated that they purchase online mostly from their computers or laptops, the majority of respondents access the Internet from their smartphones. This result presents an opportunity for online retailers to attract consumers to their website via smartphones. As mobile commerce is increasing in South Africa (Alfreds, 2016), retailers need to ensure that their website is compatible with a smartphone screen and is easy-to-use on a phone.

It is imperative that online retailers pay attention to the practicalities of mobile shopping, but also ensure that social media platforms are congruent with their brand image and connected to a mobile-friendly website. Generation Y consumers have been found to largely use their phones for social media purposes (Hill, 2016) and could be motivated to purchase online if they can easily switch between browsing social media and making a purchase. For example, social media platforms should contain images of the products and a visible link to the retailer's website. In this way consumers can change from browsing social media websites, to identifying a product or brand, to evaluating the product or brand on the website and lastly, to conducting an online purchase.

In addition to encouraging online purchases, retailers should also attempt to encourage larger, more regular online purchases. The results of the current study indicated that experienced online consumers mostly purchase online on a yearly basis and only make online purchases of small amounts (less than R500). One way to ensure larger online purchases is to encourage bulk purchases, where consumers purchase a few smaller items together or by offering free delivery if the total cost is higher than a certain amount (e.g. purchases over R450). This strategy is followed by many online retailers, such as Takealot.com. Retailers could also offer discounts on items purchased in combination (e.g. Fitbit watch and additional watch strap) or higher quantities (e.g. buy two items and get 20% discount). Once consumers are more comfortable with the financial security of online shopping, they would be more likely to make regular online purchases and spend larger amounts online.

Another important finding from the descriptive data of the current study was that most of the experienced online consumers' friends also seem to shop online. Networking effects are influential in encouraging consumers to shop online. It is imperative that online retailers are aware of consumers' views or perceptions of their brand and how these are communicated to other consumers. Tools to promote social influence, such as review platforms, opinion polls, social media and electronic word-of-mouth, are important to attract inexperienced online consumers, but also to retain experienced online consumers.

Online retailers should offer a platform for consumers to express their opinions about a product or service. In this way, online retailers can monitor what is said about their brand. Review or opinion platforms can be provided on social media websites or on a retailer's website and provides the retailer with an opportunity to monitor feedback from consumers. Retailers also then have the opportunity to reply to positive or negative comments and address concerns immediately. A brand that is already successful in doing this is Woolworths. Although not an online retailer originally, Woolworths utilises their online presence to rectify service failures and compensate consumers with vouchers or products. In this way, consumers are able to see how Woolworths addresses other disappointed consumers and will increase their trust in the brand, leading to a stronger reputation for Woolworths. Retailer reputation is a critical factor of an online retailer's success and is confirmed by the hypotheses results of the current study.

### **6.3.2 Managerial implications of the inferential analysis**

#### **6.3.2.1 Perceived risk and online repurchase intent**

The only dimensions of perceived risk that had a significant relationship with online repurchase intent in the current study, were **psychological risk** and **social risk** (retailer reputation and social influences), for the context of clothing and books. Experienced online consumers do not have to be convinced to shop online, but instead should be encouraged to continue shopping online, as opposed to shopping in-store. It is evident that online retailers continuously need to employ risk-relieving strategies to decrease experienced online consumers' risk perception, when purchasing high (clothing) and low involvement (books) products. It is less expensive for a firm to retain existing consumers than to acquire new consumers, also in the online context (Wu,

2013). Online retailers in South Africa need to ensure that their current consumer base does not diminish, but instead expands, by decreasing the perceived psychological and social risk experienced by online consumers.

As explained in chapter two, perceived psychological risk includes a website's usability, the extent to which consumers can easily locate information and products online, as well as the inability to physically evaluate products online before purchase. To decrease the psychological risk that experienced online consumers perceive, it is crucial for online retailers to present the online shopping experience as easy and effortless. When the perception is that online shopping is difficult and frustrating, experienced online consumers will be tempted to abandon online shopping and return to traditional shopping methods. It is thus recommended that online retailers pay careful attention to the position of information and products on their website, to ensure a user-friendly online shopping experience. Online retailers should put effective information search and browsing processes in place to enable consumers to shop online for a wide variety of products. For example, once a product has been selected, the consumer should not have to return to the home screen to browse further.

In addition, clear product descriptions, simple payment instructions and accurate delivery information, result in a more enjoyable online shopping experience and could address the issue of intangibility that online shopping presents. If product descriptions offer exact explanations and accurate images, consumers should experience less anxiety when purchasing online. This is particularly applicable to high involvement products, such as clothing, but should not be disregarded in the context of low involvement products. To decrease the psychological risk that experienced online consumers perceive, retailers should assist consumers to know and understand exactly what they are purchasing.

Physical distance and lack of interpersonal contact are factors that further increase perceived psychological risk, as consumers are not in store to evaluate products or interact with employees. Therefore, increased interactivity is a risk-relieving strategy that could help consumers understand exactly what they are purchasing and how to conclude the purchase online. The possibility of establishing contact with consumers,

through interactive websites, could decrease the complexity of using Internet technologies.

For example, online retailers could offer live chat tools on their website through which consumers can contact and communicate with an employee immediately and in real time. The consumer will be able to send a query, while shopping online, and should receive immediate assistance to resolve the problem. Online help desks and technical assistance, such as Skype sessions with consultants, are more ways through which online retailers can increase interactivity with consumers.

Not only does the interactivity of the Internet allow for consumer-to-employee contact, but also for peer-to-peer contact. Peer-to-peer interaction presents consumers with personalised services and facilitates interaction with other consumers, willing to share experiences and suggestions. In addition to perceived psychological risk, perceived social risk could also be addressed by increased interactivity with online retailers as well as other consumers.

Uncertainty about online shopping is often decreased, and perceived social risk relieved, when consumers consult their friends, family and wider social circles. A study by The Nielsen Company (2010) confirms this in their research that found while consumers often consult websites, they trust the opinions of friends and family most (The Nielsen Company, 2010). It is imperative for online retailers to manage the information that consumers spread about their online shopping experience as the information could influence other consumers to refrain from shopping online, if this information is destructive. For example, if a consumer has a negative online shopping experience and shares details of this experience online with peers, other consumers will reconsider purchasing online in future, irrespective of their own online shopping experiences.

Therefore, to decrease the social risk that experienced online consumers perceive, it is recommended that online retailers organise blogs, consumer reviews and online discussion forums and social network websites through which consumers can share information. An example of this would be for online retailers to create a website, similar to Hellopeter.com, to invite positive and negative feedback and react accordingly.

Consumers can share satisfactory encounters with an online retailer, offer recommendations to other consumers and review products.

By organising such platforms, online retailers can control what is said about their brand to a certain extent and are aware of negative comments posted online. Online retailers have the opportunity to rectify service failures immediately, compared to if consumers posted such information on external, third party platforms. Comments from other consumers about an online retailer affects the reputation of the retailer and to ensure a positive reputation, online retailers must first be aware of what information is shared about their brand.

Although it is crucial for online retailers to continuously satisfy experienced online consumers, the only way in which online shopping in South Africa can grow, is if more consumers adopt online shopping. Therefore, an understanding of the effect of perceived risk on the online purchase intent of inexperienced online consumers is crucial.

#### 6.3.2.2 Perceived risk and online purchase intent

In the current study, the only dimensions of perceived risk that had a significant effect on online purchase intent, were **financial risk** and **social risk** (retailer reputation), for the context of clothing and books. It is imperative for online retailers to ensure that inexperienced consumers are convinced to purchase online. These consumers are often unaware of the benefits that online shopping offers, or of the process of online shopping in South Africa. Therefore, it is recommended that risk-relieving and marketing strategies focus on creating awareness and making inexperienced online consumers comfortable with online shopping.

A large concern for many consumers in South Africa considering online shopping, is the safety and security of their financial details together with privacy. Consumers who believe that their online transactions are susceptible to fraud will be less likely to purchase online. To decrease the financial risk that inexperienced online consumers perceive, online retailers in South Africa need to implement processes to ensure the safety of consumers' financial details. An example of this is that certain websites require a password from the consumer's bank before completing a payment. A

password is sent to the consumer's phone and entered online. Many online retailers have also installed third party payment platforms, such as PayPal, or offer EFT (electronic funds transfer) payment options. These alternatives ensure that retailers do not obtain access to the financial details of consumers.

In addition to payment processes that protect the money and details of consumers, online retailers need to make consumers feel safe while paying. For example, retailers should make their Terms and Conditions, Privacy Policy and Returns Policy visible at checkout, as well as their contact details. The payment page should also have a padlock symbol visible to indicate that the website is secure. Another financial issue of purchasing products online is that consumers fear theft, that they will be over-charged or not be reimbursed if their order is incorrect.

Online retailers could offer and promote money-back guarantees as a way to reassure consumers of the safety of making purchases online. Reports of theft and fraudulent online retailers affect the perception and popularity of online shopping and individual retailers need to protect their reputation. Inexperienced online consumers will be more likely to trust a reputable retailer with their money as social risk elements, such as word-of-mouth and retailer reputation have the power to influence consumer perceptions

To decrease the social risk that inexperienced online consumers perceive, retailers need to build a positive reputation and ensure that their brand is not damaged by negative newspaper headlines, such as reports on breaches of trust or the misuse of information. Building a strong reputation and encouraging consumers to spread positive word-of-mouth, are useful ways to mitigate consumers' concern about the retailer. For example, online retailers need to install secure payment processes, such as the ones mentioned above, to prevent the loss of consumers' money or the misuse of financial information.

Once consumers experience that online shopping is safe, they will be encouraged to communicate positive recommendations about an online retailer. The blogs and online discussion forums, mentioned in section 6.3.2.1, are also important ways of building retailer reputation and attracting new consumers to purchase online. Through these

channels, inexperienced consumers become aware of online brands and can review other consumers' recommendations and experiences on online platforms (e.g. Hellopeter.com), before conducting their own purchase. To ensure the establishment and maintenance of a positive reputation, online retailers with available funds can also look to use a professional public relations (PR) company to manage their reputation. A PR company could specifically be of use to online retailers selling high involvement products. Many aspects of perceived risk contribute to the reputation of online retailers and affect the online purchase and repurchase intent of consumers. Online retailers need to ensure that they manage the financial, psychological and social risk that consumers perceive when shopping online.

#### 6.3.2.3 High vs low involvement products

All items measuring perceived risk, with regards to online shopping, were applied to the contexts of purchasing clothing and books. Therefore, the results from the current study are comparable for the context of purchasing clothing and books online. Although it was expected that perceived risk would differ significantly between various purchase situations, no differences were found in the dimensions of perceived risk that had a significant effect on online purchase and repurchase intent.

For experienced online consumers, psychological risk and social risk (retailer reputation and social influences) were found to influence online repurchase intent for the context of clothing and books. Similarly, when online purchase intent was measured, perceived financial and social risk (retailer reputation) were significant for both clothing and books.

Although it is accepted that consumers are generally more hesitant to shop online for high involvement products (Dholakia, 2011), the online purchase of low involvement products also presents risk barriers. From the current study, it could be posed that consumers who purchase low involvement products online might perceive less risk with regards to the product, but these consumers also perceive risk with regards to the online shopping process. It could also be posed that the online purchase of high involvement products, requires product and purchase involvement, while the purchase of low involvement products online focuses mainly on purchase involvement. This presents an opportunity for future research.

The element of intangibility that online shopping presents is not limited to the purchase of high involvement products. Therefore, all online consumers require clear products descriptions, accurate images, efficient websites and secure payment options. It would be ill-advised for online retailers to avoid taking risk-relieving measures when selling low involvement products, such as books.

#### **6.4 MAIN CONTRIBUTIONS OF THE STUDY**

The current study presents a conceptual model where the relationships between the identified dimensions of perceived risk and online purchase and repurchase intent were studied. As such, the structural model in this study examined relationships with regards to online shopping, rarely reported within the South African context. The aim of the current study is to be seen as valuable, also because of the distinction between high (clothing) and low (books) involvement products. The model may assist both researchers and online retailers to understand the overall online shopping experience in South Africa. Also, the structural model generated in this study helps to explain the online behaviour of Generation Y consumers in South Africa and illustrates relationships between variables. This study is not product-or industry-specific, and thus gives an overall view of the online shopping experience for clothing and books. The broad and generic nature of this study may allow for further research to be conducted in the field of online shopping in South Africa.

The findings in respect of Internet usage of Generation Y consumers in South Africa, allow researchers and online retailers to better understand the types of consumers that are shopping online, as well as their buying behaviour. The descriptive technology usage profile of the sample respondents also illustrates how, when and why Generation Y consumers in South Africa use the Internet, as well as how often a consumer has shopped online and the amount of money spent online. The data further contributed to managerial implications and considerations for firms and marketers.

Although with caution, the results in this study can be expected to be the same across industries given the broad product categories included in the survey. Moreover, the demographic profile of the sample was equally split between males and females, and thus the same results may be expected across both gender groups.

## 6.5 LIMITATIONS OF THE STUDY

A limitation of the current study is the use of a convenience sample, due to limited resources and time constraints. There may be other factors that explain why respondents did or did not answer the survey, however, potential respondent bias cannot be known, unless directly investigated for. As a result of the use of a convenience sample, the sample in the current study consisted of only Stellenbosch University students. The results can therefore not automatically be assumed or generalised for the rest of the South African Generation Y population, who are not students, nor in Stellenbosch.

Additionally, the current study included two different product types (high and low involvement products). The broad inclusion of product types means that the findings are more generic. Although the aforementioned was intentional, to generate an overall model for the online shopping experience in South Africa, the results of the current study could be challenging to implement practically in a specific product category. In addition, the level of involvement of clothing and books was not tested for. It could be that clothing and books do not significantly differ in terms of product or purchase involvement.

The researcher also did not test to ensure that all respondents who were categorised as 'experienced online consumers' had previously visited websites selling clothing or books. The questionnaire only ensured that experienced respondents had purchased online before, but not what products they had purchased and therefore, the sample could include respondents who have never purchased a book or clothing online. All respondents in the 'experienced online consumer' group answered questions about purchasing clothing and books online and many may have answered without actual experience.

With regards to the statistics, a limitation of the current study is that not all average variance explained was greater than or equal to 0.50, thereby not meeting the recommended criteria for convergent validity. Another criteria for convergent is that outer factor loadings should be greater than 0.7. Few items other than perceived social risk also produced outer factor loadings below 0.7. The random answers from respondents, as a result of a subjective measuring instrument, is thought to be

responsible for the insufficient convergent validity and therefore, regarded as a limitation of the current study.

Because a majority of the items in the questionnaire were taken from surveys in previous studies, not all items were entirely applicable to the current study. Some of the items pertained to the topic of previous studies and applying those items to the current study could be a limitation. The use of such items could possibly explain the limitation that the perceived social risk scale posed. Perceived social risk yielded poor reliability and validity results, possibly as a result of the items used to measure perceived social risk. To address the limitations of the current study, various opportunities for future research exist and are highlighted in the following section.

## **6.6 SUGGESTIONS FOR FUTURE RESEARCH**

The first suggestion for possible future research is to extend the current study by conducting similar research among consumers in other geographical areas of South Africa. In addition to other locations, future research could also be aimed at consumers of older ages, within the Generation Y cohort. A potential comparison between generations could also be done to identify differences between cohorts, in terms of perceived risks associated with online shopping.

Alternatively, future researchers could exclude generational theory from their research entirely, as several previous researchers (e.g. Yelkur, 2002; Parry and Urwin, 2011; Costanza and Finkelstein, 2015) have argued against the use of generational theory. It is recommended that researchers then analyse demographics, other than age (e.g. income), that could affect online purchase intent. Such research would also generate results to explain a greater percentage of the variance in the dependent variable, online purchase intent.

In addition to including older consumers, future researchers could also decide to include only experienced or inexperienced online consumers. The exclusion of one group of consumers will simplify the interpretation of results and present more focused conclusions and managerial implications. Researchers could simplify data analyses and results further by basing their research on specific product categories. For

example, re-conducting the study and considering only clothing items as a reference point.

The possibility of having a specific item in mind whilst answering the questionnaire, rather than investigating the overall online shopping experience (as was the case in the current study), may change the answers of respondents. Alternatively, future researchers could focus on specific South African online retailers, for example Takealot.com, to construct a point of reference in consumers' minds. This approach would measure a specific firm's online shopping performance and could be achieved by using the structural model in the current study and selecting a specific product or online firm.

Although not significant in the current study, it is possible that certain dimensions of perceived risk could affect online purchase intent and should be investigated further. For example, perceived performance and time risk were not significant in the current study, but news articles and common knowledge emphasise delivery delays as a major issue in South Africa. In future, researchers could investigate specifically the effect of perceived time and performance risk on online purchase and repurchase intent.

Lastly, to address a shortcoming of the current study, empirical research could also be conducted about the topic of consumer involvement. It could be investigated what exactly constitutes high and low involvement, as well as which products are classified as high and low involvement products.

## **6.7 CONCLUSION: CHAPTER SIX**

In this chapter, conclusions are drawn from the results in chapter five. Furthermore, managerial implications are presented from the descriptive and inferential data analyses, for the relationship between perceived risk and online purchase and repurchase intent. The limitations of the current study are mentioned and thereafter, addressed by suggesting future research areas. From the sample, it was evident that younger Generation Y consumers perceive specifically psychological, financial and social risk with regards to online shopping and that few differences were found between purchasing clothing or books online. It can be concluded that perceived risk affects younger Generation Y consumers in South Africa and that online retailers need to

adapt their strategies to include risk-relieving strategies.

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## ANNEXURE A: QUESTION ROUTE

Good morning, my name is Liezel Swiegers and I am a masters student here at Stellenbosch University. Today I have asked Dr. Pentz for twenty minutes of your class time to conduct a focus group to use in my research. I am currently conducting research about online shopping in South Africa and why it is not as common among consumers here as in other countries. I decided to use Generation Y consumers in my research, as these consumers are easily accessible to me and because we make up a large percentage of the total South African population.

- The purpose of this focus group is to discuss how, when and why younger consumers like yourself use the Internet and why you would or would not shop online.
- Your responses will assist me in designing the questionnaire to be used in my online survey.
- You are welcome to answer as you like. There are no correct or incorrect answers and all opinions are of value to me.
- The responses will be recorded. The notes will only be used by me in designing my questionnaire and every note/response is recorded anonymously.
- If you don't mind, it will really help me if you only answer one person at a time.
- Because everyone's views and opinions are important, I ask that as many of you as possible participate in the discussion. Please keep in mind that I am interested in both positive as well as negative comments.
- Any questions before we start?

Focus group questions:

1. Do you have access to the Internet?
2. How often do you have access to the Internet during a day?
3. Do you have access to the Internet at home?
4. From where do you mostly access the Internet?
5. With which device do you mostly access the Internet?
6. Why do you use the Internet?
7. Who pays for your Internet?
8. Are you aware of online shopping websites?

9. Have you browsed online before?
10. Which websites have you previously used for online browsing?
11. Have you purchased online before?
12. Which websites have you used for online purchases?
13. How often do you purchase something online?
14. What products do you usually purchase online?
15. Do you own a credit card?
16. How do you usually pay for online purchases?
17. How much do you usually spend on online purchases per month?
18. Do your friends purchase online?

Thank you very much for your time and participation, I really appreciate it. Please let me know if you have any questions. Good luck with your studies!

**ANNEXURE B: FINAL QUESTIONNAIRE**

<b>Please answer the following questions by selecting the applicable category:</b>		
I am a South African citizen:	YES	NO
If you have selected "NO" - STOP the survey.		
If you have selected "YES" - CONTINUE.		

<b>Please answer the following questions by selecting the applicable category:</b>		
Gender:	FEMALE	MALE
Age: _____		

<b>SECTION A</b>						
<b>Please answer the following questions by selecting ONE applicable category, unless otherwise stated.</b>						
1. Do you have access to the Internet?	YES		NO			
2. How often do you have access to the Internet during a day?	Seldom	Most of the day	At all times			
3. Do you have access to the Internet at home?	YES		NO			
4. From where do you mostly access the Internet?	Home/Residence	Campus	Public area (e.g. coffee shop)			
5. With which device do you mostly access the Internet?	Cell phone	Computer/laptop	Tablet			
6. Which type of cell phone do you mostly use to access the Internet?	Smart phone		Other cell phone			
7. Do you have limited Internet access?	YES (Capped)		NO (Uncapped)			
8. How much Internet do you usually use <b>per month in total</b> ?	< 5G	5G – 10G	> 10G			
9. How much Internet do you usually use <b>per month on your cell phone</b> ?	< 1G	1G – 2G	> 2G			
10. Why do you use the Internet? <b>Mark all the applicable.</b>						
Info search	Social media	Academics	Banking	E-mail	Online shopping	Browsing
11. Who pays for your Internet access?				I cover my own Internet costs	My parents pay for my Internet	Myself and my parents
12. During what time of day do you usually access the Internet?				06:00 – 12:00	12:00- 18:00	18:00 -23:00 23:00 – 06:00
13. How much time do you usually spend on the Internet per day for all Internet activities?				< 5 hours	5– 10 hours	> 10 hours
14. Would you consider yourself to be 'technologically able?' (i.e. I can 'help myself' on the Internet)				YES		NO
15. Are you aware of online shopping websites?				YES		NO
16. Have you browsed online before?				YES		NO
17. Which websites have you previously used for online browsing? <b>Mark all the applicable.</b>						
Takealot	Superbalist	Spree	Ebay	Gumtree	Yuppiechef	Other: _____
18. Have you purchased online before?				YES		NO
If YES, please continue by answering the following questions.						
If NO, please continue answering Section B.						

19. Which websites have you previously used for online purchases? <b>Mark all the applicable.</b>						
Takealot	Superbalist	Spree	Ebay	Airline websites	Computicket	Yuppiechef
20. How often do you purchase something online?			Weekly	Monthly	Yearly	
21. With which device do you mostly purchase online?			Cell phone	Computer/laptop	Tablet	
22. What products do you usually purchase online? <b>Mark all the applicable.</b>			Clothing	Tickets	Electronics	Groceries
23. Do you own a credit card?			YES		NO	
24. How do you usually pay for online purchases?			Credit Card	EFT	Other: _____	
25. How much do you usually spend on online purchases per month?			< R500	R501 - R1499	> R1500	
26. Do your friends purchase online?			YES		NO	
If you have selected "NO" - STOP the survey.						
If you have selected "YES" - CONTINUE.						

SECTION B														
Please indicate to what extent you agree/disagree with the following statements regarding online shopping for books and clothing items. In other words, when responding to each statement, use the online purchase of books and clothing as two scenarios and respond to each (answers can differ/be the same for the two product categories).														
	BOOKS							CLOTHING						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	Strongly disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly agree	Strongly disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly agree
<b>EXAMPLE: I ENJOY SHOPPING FOR BOOKS</b>			X									X		
<b>1</b> <b>II</b>	The system for changing passwords and personal information in online shopping environments is time-consuming.													
<b>2</b> <b>SI1</b>	I am not confident about online shopping for books/clothing until I see someone else doing so successfully.													
<b>3</b> <b>RR1</b>	Online retailers of books/clothing generally do not maintain a good reputation.													
<b>4</b> <b>P1</b>	My personal privacy is not protected when shopping online for books/clothing.													

<b>5</b> <b>W1</b>	I am afraid that the website freezes after I enter my book/clothing order information.																		
<b>6</b> <b>EW1</b>	My friends' recommendations about online retailers of books/clothing will influence my online shopping decision.																		
<b>7</b> <b>ML1</b>	I am concerned that I will not get my money's worth when I purchase books/clothing online.																		
<b>8</b> <b>I2</b>	Pictures of books/clothing on websites often take too long to load.																		
<b>9</b> <b>P2</b>	I fear that my personal information may be compromised if I shop online for books/clothing.																		
<b>10</b> <b>EW2</b>	It is important to know that my friends/family purchase books/clothing online without any problems.																		
<b>11</b> <b>W2</b>	I am afraid that the website will crash while I am busy purchasing books/clothing online.																		
<b>12</b> <b>CC1</b>	I do not shop online for books/clothing, because I do not own a credit card.																		
<b>13</b> <b>D1</b>	Online retailers of books/clothing do not make accurate promises about the delivery of the product.																		
<b>14</b> <b>I3</b>	Using the Internet to purchase books/clothing could involve important time losses.																		
<b>15</b> <b>P3</b>	I am concerned that using the Internet to shop for books/clothing does not offer adequate security features.																		
<b>16</b> <b>RR2</b>	Online retailers who use reputable partners (e.g. DHL) encourage me to shop online for books/clothing.																		
<b>17</b> <b>PI1</b>	I would be willing to purchase books/clothing online (again).																		

<b>18</b> <b>EW3</b>	Online user-generated information (e.g. consumer reviews) about books/clothing retailers influences my purchase decision.																		
<b>19</b> <b>PI2</b>	I intend to use online shopping for books/clothing in future (again).																		
<b>20</b> <b>C1</b>	The online shopping procedure for books/clothing is frustrating.																		
<b>21</b> <b>PI3</b>	I predict that I would purchase books/clothing online (again) in the future.																		
<b>22</b> <b>RR3</b>	Online retailers of books/clothing are generally not concerned about their consumers.																		
<b>23</b> <b>PI4</b>	I am likely to make online purchases (again) in future for books/clothing.																		
<b>24</b> <b>SI2</b>	I will not shop online if people I know do not think that using the Internet to shop for books/clothing is a good idea.																		
<b>25</b> <b>I4</b>	Shopping for books/clothing online does not allow me to accomplish the task faster than in-store shopping.																		
<b>26</b> <b>S1</b>	I do not shop online for books/clothing, because I cannot speak to a person if there is a problem.																		
<b>27</b> <b>CC2</b>	I am not comfortable with the security aspects of shopping online for books/clothing.																		
<b>28</b> <b>W3</b>	Websites without good functionality prevent me from purchasing books/clothing online.																		
<b>29</b> <b>P4</b>	I would shop online for books/clothing if there were stricter cyber laws in place to prevent fraud.																		
<b>30</b> <b>AS1</b>	It is difficult to settle disputes when I shop online for books/clothing.																		

<b>31</b> <b>P5</b>	Shopping online for books/clothing is unsafe.																		
<b>32</b> <b>S2</b>	I do not like the self-service aspect of shopping online for books/clothing.																		
<b>33</b> <b>D2</b>	Books/clothing items ordered online are rarely delivered when promised.																		
<b>34</b> <b>PI5</b>	I am looking forward to going online (again) in the near future to purchase books/clothing.																		
<b>35</b> <b>IS1</b>	It takes too long to find the correct website to purchase books/clothing.																		
<b>36</b> <b>ML2</b>	Purchasing books/clothing online could involve significant financial losses.																		
<b>37</b> <b>SE1</b>	The fact that I cannot physically examine books/clothing when I shop online prevents me from shopping online.																		
<b>38</b> <b>C2</b>	Finding the book/clothing item I am looking for online is difficult.																		
<b>39</b> <b>PR1</b>	I fear that I might receive a malfunctioning book/clothing item that I purchased online.																		
<b>40</b> <b>PR2</b>	I am afraid that I purchase the incorrect book/clothing item online.																		
<b>41</b> <b>IS2</b>	I do not have the time to browse the Internet for information about books/clothing items.																		
<b>42</b> <b>PR3</b>	It is hard to judge the quality of books/clothing over the Internet.																		
<b>43</b> <b>SE2</b>	When shopping online for books/clothing, I do not like the fact that I am unable to touch and feel the item.																		
<b>44</b> <b>PR4</b>	I am concerned that I might not receive the book/clothing item I ordered online.																		

<b>45</b> <b>ML3</b>	I am concerned that I could make an unwise financial investment when shopping online for books/clothing.														
<b>46</b> <b>SI3</b>	I will shop online for books/clothing if people important to me think that I should.														
<b>47</b> <b>PR5</b>	I am concerned that the book/clothing item I ordered online does not provide the benefits I was expecting.														
<b>48</b> <b>SI4</b>	I will shop online for books/clothing if my friends think that I should.														
<b>49</b> <b>SE3</b>	I am uncomfortable with the fact that I am unable to physically evaluate the book/clothing item before I purchase it online.														
<b>50</b> <b>SE4</b>	I worry about the quality of the book/clothing item that I order online.														
<b>51</b> <b>S3</b>	I am not confident about online shopping for books/clothing if there is no one to show me how to do it.														
<b>52</b> <b>AS2</b>	I fear that I cannot return the book/clothing item I ordered online easily.														
<b>53</b> <b>D3</b>	If I order books/clothing online, it usually takes too long to arrive.														
<b>54</b> <b>S4</b>	I do not shop online for books/clothing, because I want a 'real' person to help me solve any transaction problem.														
<b>55</b> <b>IS3</b>	I cannot find sufficient information when shopping online for books/clothing.														

**ANNEXURE C: ORIGINAL AND ADAPTED ITEMS**

NO.	CODE	ORIGINAL ITEM	ADAPTED ITEM	SOURCE
<b>FINANCIAL RISK</b>				
12	CC1	I do not shop online as I do not have a credit card.	I do not shop online for books/clothing, because I do not own a credit card.	Javadi, Dolatabadi, Nourbakhsh, Poursaeedi, Asadollahi & Reza, 2012.
27	CC2	I am not comfortable with the security aspects of online transactions.	I am not comfortable with the security aspects of shopping online for books/clothing.	Khare, Khare & Singh, 2012.
4	P1	I feel my personal privacy is protected in online shopping.	My personal privacy is not protected when shopping online for books/clothing.	Nepomuceno, Laroche & Richard, 2014.
9	P2	I feel that my personal information given for transaction to the retailer may be compromised to 3 <sup>rd</sup> party.	I fear that my personal information may be compromised if I shop online for books/clothing.	Javadi et al., 2012.
15	P3	The Internet has adequate security features.	I am concerned that using the Internet to shop for books/clothing does not offer adequate security features.	Nepomuceno, et al., 2014.
29	P4	I would shop online without fear if there were stricter cyber laws in place to prevent fraud.	I would shop online for books/clothing if there were stricter cyber laws in place to prevent fraud.	Javadi et al., 2012.
31	P5	I feel safe in making transactions from this site.	Shopping online for books/clothing is unsafe.	Meng-Hsiang et al., 2014.
7	ML1	If I bought this item for myself within the next twelve months, I would be concerned that I would not get my money's worth.	I am concerned that I will not get my money's worth when I purchase books/clothing online.	Nepomuceno, et al., 2014.
36	ML2	Purchasing this item could involve important financial losses.	Purchasing books/clothing online could involve significant financial losses.	Nepomuceno, et al., 2014.
45	ML3	If I bought an item for myself within the next twelve months, I would be concerned that the financial investment I would make would not be wise.	I am concerned that I could make an unwise financial investment when shopping online for books/clothing.	Nepomuceno, et al., 2014.
<b>PSYCHOLOGICAL RISK</b>				
20	C1	I do not get frustrated when I shop online.	The online shopping procedure for books/clothing is frustrating.	Lee, Eze & Ndubisi, 2011.
38	C2	Finding the right product online is difficult.	Finding the book/clothing item I am looking for online is difficult.	Javadi et al., 2012.
37	SE1	I do not get to examine the product when I shop online.	The fact that I cannot physically examine books/clothing when I shop online prevents me from shopping online.	Javadi et al., 2012.
43	SE2	I am unable to touch and feel the products.	When shopping online for books/clothing, I do not like that fact the I am unable to touch and feel the item.	Sarkar, 2011.
49	SE3	I cannot get to examine the product when I shop online.	I am uncomfortable with the fact that I am unable to physically evaluate the	Javadi et al., 2012.

			book/clothing item before I purchase it online.	
50	SE4	I worry about the quality of the product that may be delivered if I order through online websites.	I worry about the quality of the book/clothing item that I order online.	Khare et al., 2012.
26	S1	The online vendor offers the ability to speak to a live person if there is a problem.	I do not shop online for books/clothing, because I cannot speak to a person if there is a problem.	Hsieh & Tsao, 2014.
32	S2	When I need to buy, I like online self-service.	I do not like the self-service aspect of shopping online for books/clothing.	Lian & Yen, 2014.
51	S3	I am confident of shopping online even if no one is there to show me how to do it.	I am not confident about online shopping for books/clothing if there is no one to show me how to do it.	Javadi et al., 2012.
54	S4	When I have problems shopping online, someone can help me solve them.	I do not shop online for books/clothing, because I want a 'real' person to help me solve any transaction problem.	Lian & Yen, 2014.
<b>PERFORMANCE RISK</b>				
5	W1	The website does not crash.	I am afraid that the website freezes after I enter my book/clothing order information.	Hsieh & Tsao, 2014.
11	W2	The website does not freeze after I enter my order information.	I am afraid that the website will crash while I am busy purchasing books/clothing online.	Hsieh & Tsao, 2014.
28	W3	Simple websites with great functionality will attract me to revisit.	Websites without good functionality prevent me from purchasing books/clothing online.	Lee et al., 2011.

NO.	CODE	ORIGINAL ITEM	ADAPTED ITEM	SOURCE
39	PR1	I might receive malfunctioning merchandise.	I fear that I might receive a malfunctioning book/clothing item that I purchased online.	Javadi et al., 2012.
40	PR2	I am afraid that I may purchase something by accident.	I am afraid that I purchase the incorrect book/clothing item online.	Hsieh & Tsao, 2014.
42	PR3	It is hard to judge the quality of merchandise over Internet.	It is hard to judge the quality of books/clothing over the Internet.	Javadi et al., 2012.
44	PR4	I might not receive the product I ordered online.	I am concerned that I might not receive the book/clothing item I ordered online.	Javadi et al., 2012.
47	PR5	If I were to purchase an item within the next twelve months, I would become concerned that the item will not provide the level of benefits that I would be expecting.	I am concerned that the book/clothing item I ordered online does not provide the benefits I was expecting.	Nepomuceno, et al., 2014.
30	AS1	I feel that it will be difficult settling disputes when I shop online.	It is difficult to settle disputes when I shop online for books/clothing.	Javadi et al., 2012.
52	AS2	I purchase online only when I can return the product without any strings attached.	I fear that I cannot return the book/clothing item I ordered online easily.	Javadi et al., 2012.
<b>TIME RISK</b>				
13	D1	The online vendor makes accurate promises about the delivery of the product.	Online retailers of books/clothing do not make accurate promises about the delivery of the product.	Hsieh & Tsao, 2014.
33	D2	The online retailer delivers order when promised.	Books/clothing items ordered online are rarely delivered when promised.	Hsieh & Tsao, 2014.
53	D3	If I shop online, I cannot wait until the product arrives.	If I order books/clothing online, it usually takes too long to arrive.	Javadi et al., 2012.
1	I1	The system for changing my password and personal information in online shopping environments is convenient.	The system for changing passwords and personal information in online shopping environments is time-consuming.	Lian & Yen, 2014.

8	I2	Pictures of merchandise on the website take too long to come up.	Pictures of books/clothing on websites often take too long to load.	Sarkar, 2011.
14	I3	Purchasing an item could involve important time losses.	Using the Internet to purchase books/clothing could involve important time losses.	Nepomuceno, et al., 2014.
25	I4	Using the Internet for my apparel/clothing shopping enables me to accomplish tasks more quickly.	Shopping for books/clothing online does not allow me to accomplish the task faster than in-store shopping.	Srinivasan, 2015.
35	IS1	Takes too long to find appropriate website.	It takes too long to find the correct website to purchase books/clothing.	Hsieh & Tsao, 2014.
41	IS2	<i>Written for the purpose of the current study.</i>	I do not have the time to browse the Internet for information about books/clothing items.	
55	IS3	<i>Written for the purpose of the current study.</i>	I cannot find sufficient information when shopping online for books/clothing.	
<b>SOCIAL RISK</b>				
2	SI1	I will have no problem to shop online if I know that my friends/relatives are doing so without any problems.	I am not confident about online shopping for books/clothing until I see someone else doing so successfully.	Javadi et al., 2012.
24	SI2	People I know thought that using the Internet for shopping was a good idea.	I will not shop online if people I know do not think that using the Internet to shop for books/clothing is a good idea.	Srinivasan, 2015.
46	SI3	People important/close to me thought that I should use the Internet for shopping apparel/clothing.	I will shop online for books/clothing if people important to me think that I should.	Srinivasan, 2015.
48	SI4	My friends think that I should shop online.	I will shop online for books/clothing if my friends think that I should.	Lian & Yen, 2014.
3	RR1	The vendor of this site has a good reputation.	Online retailers of books/clothing generally do not maintain a good reputation.	Meng-Hsiang et al., 2014.
16	RR2	I will repurchase products/services online, if the firm has partners and suppliers that have a strong brand name in the market.	Online retailers who use reputable partners (e.g. DHL) encourage me to shop online for books/clothing.	Lee et al., 2011.
22	RR3	The vendor of this site is known to be concerned about customers.	Online retailers of books/clothing are generally not concerned about their consumers.	Meng-Hsiang et al., 2014.
6	EW1	<i>Written for the purpose of the current study.</i>	My friends' recommendations about online retailers of books/clothing will influence my online shopping decision.	
10	EW2	<i>Written for the purpose of the current study.</i>	It is important to know that my friends/family purchase books/clothing online without any problems.	
18	EW3	<i>Written for the purpose of the current study.</i>	Online user-generated information (e.g. consumer reviews) about books/clothing retailers influences my purchase decision.	
<b>PURCHASE/REPURCHASE INTENT</b>				
17	PI1	I would be willing to purchase from this online store again.	I would be willing to purchase books/clothing online (again).	Hsieh & Tsao, 2014.
19	PI2	I intend to shop online in the future.	I intend to use online shopping for books/clothing in future (again).	Lian & Yen, 2014.
21	PI3	I predict I would shop online in the future.	I predict that I would purchase books/clothing online (again) in the future.	Lian & Yen, 2014.
23	PI4	I am likely to make future purchases from this site.	I am likely to make online purchases (again) in future for books/clothing.	Meng-Hsiang et al., 2014.
34	PI5	It is likely that I am going to buy from this site.	I am looking forward to going online (again) in the near future to purchase books/clothing.	Meng-Hsiang et al., 2014.

**ANNEXURE D: CODING SHEET**

SCREENING QUESTION				
<b>S1</b>		I am a South African citizen	Yes No	1 2
DEMOGRAPHICS				
<b>D1</b>		Age (years)	Filled in by respondent	
<b>D2</b>		Gender	Male Female	1 2
SECTION A: TECHNOLOGY PROFILE				
<b>TP1</b>	<b>1</b>	Do you have access to the Internet?	Yes No	1 2
<b>TP2</b>	<b>2</b>	How often do you have access to the Internet during a day?	Seldom Most of the day At all times	1 2 3
<b>TP3</b>	<b>3</b>	Do you have access to the Internet at home?	Yes No	1 2
<b>TP4</b>	<b>4</b>	From where do you mostly access the Internet?	Home/residence Campus Public area	1 2 3
<b>TP5</b>	<b>5</b>	With which device do you mostly access the Internet?	Cell phone Computer/laptop Tablet	1 2 3
<b>TP6</b>	<b>6</b>	Which type of cell phone do you mostly use to access the Internet?	Smart phone Other cell phone	1 2
<b>TP7</b>	<b>7</b>	Do you have limited Internet access?	Yes (Capped) No (Uncapped)	1 2
<b>TP8</b>	<b>8</b>	How much Internet do you usually use per month in total?	< 5G 5G - 10G > 10G	1 2 3
<b>TP9</b>	<b>9</b>	How much Internet do you usually use per month on your cell phone?	< 1G 1G - 2G > 2G	1 2 3
<b>TP10</b>	<b>10</b>	Why do you use the Internet? Mark all the applicable.	Info search Social media Academics Banking E-mail Online shopping Browsing	1 2 3 4 5 6 7
<b>TP11</b>	<b>11</b>	Who pays for your Internet access?	I cover my own Internet costs My parents pay for my Internet Myself and my parents	1 2 3
<b>TP12</b>	<b>12</b>	During what time of day do you usually access the Internet?	06:00 – 12:00 12:00- 18:00 18:00 -23:00 23:00 – 06:00	1 2 3 4
<b>TP13</b>	<b>13</b>	How long do you usually spend on the Internet per day for all Internet activities?	<5 hours 5 – 10 hours >10 hours	1 2 3
<b>TP14</b>	<b>14</b>	Would you consider yourself to be 'technologically able?' (i.e. I can 'help myself' on the Internet)	Yes No	1 2
<b>TP15</b>	<b>15</b>	Are you aware of online shopping websites?	Yes No	1 2
<b>TP16</b>	<b>16</b>	Have you browsed online before?	Yes No	1 2

TP17	17	Which websites have you previously used for online browsing? Mark all the applicable.	Takealot Superbalist Spree Ebay Gumtree Yuppiechef Other	1 2 3 4 5 6 7
TP18	18	Have you purchased online before?	Yes No	1 2
TP19	19	Which websites have you previously used for online purchases? Mark all the applicable.	Takealot Superbalist Spree Ebay Airline websites Computicket Yuppiechef Other	1 2 3 4 5 6 7 8
TP20	20	How often do you purchase something online?	Weekly Monthly Yearly	1 2 3
TP21	21	With which device do you mostly shop online?	Cell phone Computer/laptop Tablet	1 2 3
TP22	22	What products do you usually purchase online? Mark all the applicable.	Clothing Tickets Electronics Groceries Other	1 2 3 4 5
TP23	23	Do you own a credit card?	Yes No	1 2
TP24	24	How do you usually pay online?	Credit card EFT Other	1 2 3
TP25	25	How much do you usually spend on online purchases per month?	<R500 R501-R1499 >R1500	1 2 3
TP26	26	Do your friends shop online?	Yes No	1 2
<b>SECTION B: PERCEIVED RISK BARRIERS</b>				
CC1-2	12; 27	FINANCIAL RISK: Credit card	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
P1-5	4; 9; 15; 29; 31	FINANCIAL RISK: Privacy	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
ML1-3	7; 36; 45	FINANCIAL RISK: Monetary loss	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
C1-2	20; 38	PSYCHOLOGICAL RISK: Complexity	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7

<b>SE1-4</b>	<b>37; 43; 49; 50</b>	PSYCHOLOGICAL RISK: Sensory evaluation	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>S1-4</b>	<b>26; 32; 51; 54</b>	PSYCHOLOGICAL RISK: Support	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>W1-3</b>	<b>5; 11; 28</b>	PERFORMANCE RISK: Website	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>PR1-5</b>	<b>39; 40; 42; 44; 47</b>	PERFORMANCE RISK: Product Risk	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>AS1-2</b>	<b>30; 52</b>	PERFORMANCE RISK: After sales service	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>D1-3</b>	<b>13; 33; 53</b>	TIME RISK: Delivery	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>I1-4</b>	<b>1; 8; 14; 25</b>	TIME RISK: Internet	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>IS1-3</b>	<b>35; 41; 55</b>	TIME RISK: Information Search	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>SI1-4</b>	<b>2; 24; 46; 48</b>	SOCIAL RISK: Social influences	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>RR1-3</b>	<b>3; 16; 22</b>	SOCIAL RISK: Retailer reputation	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7

<b>EW1-3</b>	<b>6; 10; 18</b>	SOCIAL RISK: eWord-of-Mouth (eWOM)	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7
<b>PI1-5</b>	<b>17; 19; 21; 23; 34</b>	PURCHASE INTENT / REPURCHASE INTENT	Strongly Disagree Disagree Disagree somewhat Neutral Agree somewhat Agree Strongly Agree	1 2 3 4 5 6 7