Cape Peninsula
University of Technology

CONSUMER ADOPTION OF ONLINE GROCERY SHOPPING IN THE CAPE METROPOLITAN AREA, SOUTH AFRICA

by

TICHAONA BUZY MUSIKAVANHU

Dissertation submitted in fulfilment of the requirements for the degree

Master of Retail Business Management

in the Faculty of Business and Management Sciences

at the Cape Peninsula University of Technology

Supervisor: Professor JN Steyn

Co-supervisor: Mr J Aspeling

Cape Town

November 2017

CPUT copyright information

The dissertation may not be published either in part (in scholarly, scientific or technical journals) or as a whole (as a monograph) unless permission has been obtained from the University.

DECLARATION

I, **Tichaona Buzy Musikavanhu**, declare that the contents of this dissertation represent my own unaided work and that the dissertation has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

Signed **Date**

ABSTRACT

The growth and use of information and communication technologies (ICT) such as the Internet across the globe, has been phenomenal. For both businesses and consumers, the Internet birthed new and highly effective and efficient avenues for communicating and transacting. The use of the Internet as a business trading platform known as e-commerce became popular in the 1990s and has inevitably led to the mushrooming of online retailers. The growth of this non-store retail segment poses a threat to traditional brick and mortar retail stores, although retail experts now view online retailing as an evolution rather than a revolution.

Previously, non-grocery merchandise was the predominant commodity that was being sold online, but there is now growing evidence of online grocery shopping (OGS). Most developed nations such as UK, USA, France and Finland are considered to have well-developed online grocery markets, yet developing countries such as South Africa are still at an infancy stage. Most research about OGS had a Eurocentric view, and there are limited studies that focus on other parts of the world such as Africa.

This research study took a consumer-centric perspective to understand consumer adoption of OGS, with the specific aim of determining factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan area of South Africa. This study followed a quantitative research approach and a statistically derived sample size of 455 respondents was used. These respondents were conveniently selected at shopping malls in the Cape Metropolitan area. Of the questionnaires that were distributed, 391 questionnaires were usable and were captured on Statistical Package for the Social Sciences (SPSS) version 23 for the purpose of data analysis.

The findings of the study showed that most respondents were black single females aged between 26 and 45 years with a diploma education level. The study also showed that 84.9% (n=391) of respondents had not adopted OGS, which indicated that most respondents were still accustomed to in-store grocery shopping. Using the Generalised Linear Model to determine which factors influenced consumers' behavioural intention to adopt OGS, only Perceived Cost (PCo) had a significant influence on consumers' behavioural intention to adopt OGS. Other factors such as Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Visibility (VIS), Perceived Risk (PR), Perceived Image Barrier (PIB) and Social Attractiveness (SAT) had an indirect influence on consumers' behavioural intention to adopt OGS.

Based on the findings of the study in order to improve consumer adoption of OGS, the following recommendations have been made. Firstly, that online grocery managers and e-marketers should market OGS emphasising the usefulness and cost effectiveness of using it while at the same time factors such as PU, PEOU, VIS, PR, VIS, PIB and SAT should also be integrated into the communication campaigns. Secondly, that further research can be done to find ways that grocery retailers can use retain online grocery shoppers.

ACKNOWLEDGEMENTS

I wish to thank:

- God for my wellbeing and for strategically positioning invaluable people around me.
- Professor Jacobus N. Steyn (Supervisor) & Mr. Jonathan Aspeling (Co-supervisor) for guidance, support and motivation during the course of the study.
- Dr. Virimai Mugobo (Retail Head of Department) and his department research committee for reviewing my dissertation and providing valuable criticisms.
- Mr. Petrus Venter (Former Retail Head of Department) for providing a conducive environment for studying.
- Ms. Albertina Jere, Prof Chukwuma Gervase Iwu, Mr. Vivence Kalitanyi, Dr. Robertson Tengeh, Ms. Moonde Kabinga, Mr. Silence Chamunorwa, Mr. Misheck Mutize & Mr. Rueben Dassah for motivation and encouragements.
- Dr. Corrie Uys for Statistical analysis assistance.
- Ms. Bukelwa Mbinda, Ms Mercia Strydom & Ms. Samantha Van Der Merwe for their warm and welcoming attitudes, and providing me with extra help when needed.
- Family and friends for support, prayers and affirmations.

The financial assistance of the Wholesale and Retail Sector Education Training Authority (W&RSETA) and CPUT bursary towards this research is acknowledged. Opinions expressed in this thesis and the conclusions arrived at, are those of the author, and are not necessarily to be attributed to the W&RSETA or CPUT.

DEDICATION

I dedicate this academic work to my late dad (Tina) & mum (Shumie), and to my sisters Enia & Tarry.

#tsunga_ukunde

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

CLARIFICATION OF BASIC TERMS

Consumers: end users of retail products or services.

E-commerce: is the sale or purchase or exchange of goods or services and/or information via the Internet/extranet/intranet between individuals, households, enterprises and governments in which payment can be done on or offline (Chipp & Ismail, 2008:5; Kurnia, 2008:413).

Online grocery retailing: (also known as e-grocery retailing, Internet grocery retailing, electronic grocery retailing) is the sale of grocery merchandise products over computer-mediated platforms such as the Internet (Raijas, 2002:112; Levy et al., 2014).

Online grocery shopping: (also known as Internet grocery shopping; e-grocery shopping, electronic grocery shopping) is referred to as the consumer purchase of grocery merchandise from online grocery retailers (Verhoef & Langerak, 2001:275; Raijas, 2002:107).

Online retailing: (also known as e-tailing, electronic retailing, Internet retailing, e-retailing) is the sale of products and services to customers over the Internet (Levy et al., 2014).

Pure play retail store: is an online retail store that operates purely online, and merchandise is delivered to consumers straight from the warehouse (Hoojisma, 2014).

ABBREVIATIONS

ADSL	Asymmetrical Digital Subscriber Line
B2B	Business-to-Business e-commerce
B2C	Business-to-Consumer e-commerce
B2G	Business-to-Government e-commerce
BRICS	Brazil, Russia, India, China and South Africa
C2C	Consumer-to-Consumer e-commerce
CBD	Central Business District
CPUT	Cape Peninsula University of Technology
FAQ	Frequently Asked Questions
GDP	Gross Domestic Product
HDC	Higher Degrees Committee
ICT	Information Communication Technology
OGS	Online grocery shopping
P2P	Person-to-Person payments
PC	Personal Computer
PCo	Perceived Cost
PEOU	Perceived Ease of Use
PIB	Perceived Image Barrier
PR	Perceived Risk
PU	Perceived Usefulness
RBM	Renminbi (Chinese currency)
SA	South Africa
SAT	Social Attractiveness
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for the Social Sciences
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UK	United Kingdom

UNCTAD	United Nations of Trade and Development
USA	United States America
UTAUT	Unified Theory of Acceptance and Use of Technology
VIS	Visibility
W&RSETA	Wholesale and Retail Sector Education Training Authority

CHAPTER ONE
INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

> *"Online grocery shopping has continued to experience a rapid evolution in recent years, facilitated by the ongoing development of the Internet and related technologies such as mobile communications. However, the market still faces key challenges in breaking out from niche status to a truly mass-market option …"* (Datamonitor, 2010:1).

The unprecedented growth and use of information and communication technologies (ICT) such as the Internet have made it possible for business and consumers to efficiently and effectively communicate and transact online (Lawrence, Newton, Corbitt, Lawrence, Dann & Thanasankit, 2003:2; Nirmal, 2008:4; Salehi, 2012:393; Awa, Ojiabo & Emecheta, 2015:572). Al-nawayseh, Alnabhan, Al-Debei and Balachandran (2013:41) also noted that the Internet facilitates trading transactions not only between businesses but also between business and consumers. Schneider (2013:5) indicated that the Internet became popular as a commerce platform in the 1990s and the number of e-commerce ventures has been on the rise over the past years. This growth of e-commerce is largely supported by the continuous increase in the number of digital consumers across the globe (Changchit, 2006:177; Datamonitor, 2010:6) and the increased use of Internet-enabled devices such as smartphones and tablets (Mosteller, Donthu & Eroglu, 2014:2486). So, for organisations to be sustainable and competitive in this globalisation era, they should take advantage of e-commerce opportunities (Gregorio, Kassicieh & Neto, 2005:155; Kurnia, 2008:413; Khaskeli & Jun, 2016:12).

Thus far, business-to-consumer (B2C) e-commerce is the second largest e-commerce category after business-to-business (B2B) e-commerce (Zorayda, 2003:11; UNCTAD, 2015:3) and it consists mainly of online retail business. According to Gan, He, Huang and Tan (2007:474) the benefits of B2C e-commerce has substantially led to the rise of online retailing in the past decades. Global online retail sales amounted to $632 billion dollars in 2012 (Celik, 2016:278). Also, Forrester Research estimations show that the US online retail sales will reach $370 billion in 2017 from $262 billion in 2013 (Mosteller et al., 2014:2486). Furthermore, online sales are expected to continue to increase in the future (Schneider, 2013:11; Keisidou, Sarigiannidis & Maditinos, 2011:32; Awa et al. 2015:572). Levy, Weitz and Grewal (2014:68) cited that online sales are expected to grow three times faster than traditional retail sales. This growth has stirred the need to understand what triggers consumers to use online shopping channels (Clemes, Gan & Zhang, 2014:365).

Despite the growth of the overall online retail sales, online grocery shopping (OGS) is not yet popular as compared to the online purchase of non-food items such as electronic gadgets and books (Hansen, 2008:128; Datamonitor, 2010:1). Although consumers now realise the benefits of OGS (Tanskanen, Yrjola & Holmstrom, 2002:170; Lim, Heilig, Ernst, Widdows & Hooker, 2004:68; Lin, 2007:433), surprisingly, the adoption of OGS has been slower than anticipated (Raijas, 2002:107; Kurnia & Chien, 2003:219; Huang & Oppewal, 2006:334; Murphy, 2007:942; Al-nawayseh et al., 2013:41). Moreover, Al-nawayseh et al. (2013:41) stress that consumers are still sceptical to adopt OGS. Some consumers browse for merchandise online and complete their shopping offline (Changchit, 2006:177; Close & Kukar-Kinney, 2010:986). Close and Kukar-Kinney (2010:986) supports the need for more research to understand why consumers abandon their online shopping carts.

Contrary to slow adoption of OGS, Goethals, Leclercq-Vandelannoitte and Tutuncu, (2012:133) denoted that OGS is now among the fastest growing online categories. In concurrence, De Kervenoael, Elms and Hallsworth (2014:155) further assert that OGS is gaining popularity across the world, for example, 11 to 13% of the UK population purchase groceries online regularly. Globally, the US has the highest overall online grocery market value (Hand, Dall'Olmo Riley, Harris, Singh & Rettie, 2009:1205; Datamonitor, 2010:10). However, the South African (SA) online grocery market is still at the infancy stage (McClatchey, Cattell & Michell, 2007:124; Datamonitor, 2010:29; Bra, 2013), but there are prospects of growth in the future. This research study endeavours to determine factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan area, South Africa.

1.2 Background to the research problem

Previous studies about OGS have a European-centric view (Morganosky & Cude, 2000:19; Kurnia & Chien, 2003:220; Rahma, Khan & Islam, 2013:9; Goethals et al., 2013:134), and there are currently limited studies that focus on other parts of the world such as Africa. This study focuses on the Cape Metropole with an intention to provide an African perspective of OGS adoption. Rahman et al. (2013:9) endorse the need for more studies that examine untapped online grocery markets.

SA national retailers Woolworths and Pick n Pay are the dominant online grocery retailers and were the first to launch online grocery store channels in 2000 and 2001 respectively (Croker, 2005:1; Datamonitor, 2010:29; Bra, 2013) Although these grocery retailers launched their online shopping channels seventeen years ago, they still derive less than 1% of their total grocery sales from their online stores (Datamonitor, 2010:29; Bra, 2013; Writer, 2015). This renders the

SA online grocery market less competitive as compared to other countries (Datamonitor, 2010:29; McClathey et al., 2007:124). According to Geuens, Brengman and S'Jegers (2002:242) consumers are key determinants of the growth of OGS and should accordingly be the point of departure in analysing reasons for adoption of OGS.

Thomas White International (2011:9) asserts that SA has a developed and competitive retail landscape. However, the country is still lagging in the online grocery retailing (Douglas, 2013). Also, Al-nawayseh et al. (2013:41) posit that online grocery retailing developments in developing countries are still slower compared to developed countries. Understanding what factors influence consumers' intention to adopt OGS is essential for e-marketers and online grocery managers in crafting marketing communication strategies that can boost OGS adoption.

The benefits of shopping groceries online far outweigh shopping groceries from physical grocery stores (Morganosky & Cude, 2000; Raijas, 2002; Kurnia & Chien, 2003; Murphy, 2007). With OGS, consumers are able to shop groceries from anywhere and anytime, thus saving consumers' time and money. Consumers also avoid crowds, queues and congestion (Keh & Shieh, 2001: Murphy, 2007; Gan et al., 2007; Lin, 2007). Furthermore, OGS enables consumers to make informed buying decisions because they have access to vast information about the products and the grocery retailer's reputation (Lin, 2007:433; Datamonitor, 2010:6). Although consumers now realise the benefits of OGS (Tanskanen et al., 2002:170; Lim et al., 2004:68; Lin, 2007:433), surprisingly the adoption of OGS has been slower than anticipated (Raijas, 2002:107; Kurnia & Chien, 2003:219; Huang & Oppewal, 2006:334; Murphy, 2007:942; Al-nawayseh et al., 2013:41).

Notwithstanding the vast perceived benefits of OGS, shopping groceries online also has its drawbacks. Consumers cannot satisfy their sensory stimuli of touch, feel and smell when buying groceries online (Tanskanen et al., 2002:172). Trevinal and Stenger (2014:316) also assert that sensory aspects of online shopping are essential as they determine shopping enjoyment and aesthetic enjoyment. In addition, consumers have concerns over their privacy and security online (Kempiak & Fox, 2002; Datamonitor, 2010). These and many other disadvantages of OGS have been cited to be the likely cause of non-adoption of OGS. Kurnia and Chien (2003:219) postulate that OGS has not been widely adopted or accepted as initially predicted. Moreover, Morganosky and Cude (2000:19) aver that new innovations such as shopping online, take time to be fully adopted by the majority of consumers. Since most online shoppers have experience with buying non-grocery merchandise online and it is likely that they will purchase

groceries online in the future (Huang & Oppewal, 2006:335; Kacen, Hess & Chiang, 2013:19). However, a thorough understanding of online shopper behavioural drivers is at the core of online shopping growth (Salehi, 2012:394; Clemes et al., 2014:365).

There are several models and theories that underpin the understanding of technology adoption, including the Theory of Reason Action (TRA), Theory of Planned Behaviour (TPB), Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT). Among these models, TAM has been widely used by various researchers to explain the e-commerce adoption by consumers (Wang, Wang, Lin & Tang, 2003:506; Kurnia & Chien, 2003:221; Hernandez, Jimenez & Jose Martin, 2009:1233; Rahman et al., 2013:10; Awa et al., 2015:573). The TAM was conceived from the TRA, and this model has two key behavioural intention and usage of technology determinants which are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) (Lin, 2007:434). This study uses a limited version of the Technology Acceptance Model (TAM) to determine factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan area.

1.3 Problem statement

Most South African consumers are still purchasing groceries from traditional brick and mortar grocery stores (Datamonitor, 2010; Douglas, 2013; Bra, 2013). South Africa appears to be lagging in online grocery retailing, although it has a well-developed and competitive retail market (Douglas, 2013). Furthermore, MacClathey et al. (2007:124) assert that SA's online grocery market is still at an infancy stage. The online grocery market is close to two decades in SA since its inception in 2000 (Croker, 2005), however, online grocery store sales contribution to the overall grocery sales is still less than 1% (Datamonitor, 2010; Bra, 2013; Writer, 2015). Keh and Shieh (2001:75) stress that there is high uncertainty about technology, Internet adoption and consumer preferences. Dereratu, Rangaswamy and Wu (2000:56) assert that there is a need to understand the effects of computer-mediated shopping environments. Lin (2007:433) also affirms that the increase in business to consumer (B2C) electronic commerce (e-commerce) has necessitated the need to understand consumer adoption of online shopping channels. There is a limited understanding of the factors that influence consumers' behavioural intention to adopt OGS. To effectively market and grow online grocery retailing, there is a need to understand factors that influence consumers' intention to adopt OGS. As alluded to in the background, the researcher used a limited version of the TAM to ascertain these factors.

1.3.1 Research questions

a) What are the demographic profiles of adopters and non-adopters of OGS in the Cape Metropolitan area?
b) Do Perceived usefulness (PU), Perceived ease of use (PEOU), Perceived risks (PR), Perceived cost (PCo), Perceived image barrier (PIB), Visibility (VIS) and Social attractiveness (SAT) influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan area?
c) What is the relative importance of factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan area?
d) What can be recommended to improve OGS adoption in the Cape Metropolitan area?

1.3.2 Research objectives

a) To identify demographic profiles of adopters and non-adopters of OGS in the Cape Metropolitan area.
b) To determine whether Perceived usefulness (PU), Perceived ease of use (PEOU), Perceived risks (PR), Perceived cost (PCo), Perceived image barrier (PIB), Visibility (VIS) and Social attractiveness (SAT) influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan area.
c) To ascertain the relative importance of factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan area.
d) To develop guidelines to improve OGS adoption in the Cape Metropolitan area.

1.3.3 Hypothesis

In order to fulfill the requirements for research objective 1.3.2 (b) the following hypothesis were formulated guided by literature review.

H1: PU has a positive influence towards consumer behavioural intention to adopt OGS in Cape Metropolitan area

H2: PEOU has a positive influence towards consumers behavioural intention to adopt OGS in the Cape Metropolitan area

H3: PR has a negative influence towards consumers behavioural intention to adopt OGS in the Cape Metropolitan area

H4: PCo has a negative influence towards consumers behavioural intention to adopt OGS in the Cape Metropolitan area

H5: PIB has a negative influence towards consumers behavioural intention to adopt OGS in the Cape Metropolitan area

H6: VIS has a positive influence towards consumers behavioural intention to adopt OGS in the Cape Metropolitan area

H7: SAT has a positive influence towards consumers behavioural intention to adopt OGS in the Cape Metropolitan area

1.4 Significance of the study

OGS is still lagging in SA, even though it has signs of potential growth in the future. This research study aims to determine factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan Area. The findings should help e-marketers and online grocery retail managers to craft marketing communication strategies that can improve adoption of OGS.

This empirical research study is also a resource to the body of knowledge and academia, with a South African perspective of the OGS. It is also hoped that beyond the likelihood of providing some guidelines on SA consumer behaviour, it is anticipated that this study will stimulate a new interest in online grocery retailing researches.

This study was also done in order to fulfil the requirements of a Master's degree at Cape Peninsula University of Technology.

1.5 Delimitations of the study

This research focuses only on consumer adoption of OGS, that is the demographic characteristics of adopters and non-adopters; and factors that influence consumers' behavioural intention to adopt OGS. The study was only done in the Cape Metropolitan Area, South Africa. A quantitative research approach was used in this study. This method is also known as deductive research which is empirical and answers research questions through numerical measurements (Zikmund, Babin, Carr and Griffin, 2013:134). This study sought to understand consumer behaviour's intention to adopt OGS, and Copper and Schindler (2011:161) suggest that quantitative research enables to obtain precise measurements of consumer behaviours, knowledge, opinions, or attitudes. And data obtained from quantitative studies can be generalised to a large population (Cameron & price, 2009:213).

1.6 Ethical considerations

According to Cooper and Schindler (2011:32) ethics are "norms or standards of behaviour that guide moral choices about our behaviour and relationships with others". It is expected of researchers to take recognisance of ethical considerations when carrying any nature of research. Cooper and Schindler (2011) highlighted that there are norms or standard behaviour

expected of various relationships. Each part in the relationship has rights which are not to be breached by another part. Gravetter and Forzano, (2009:98) also pointed out that research ethics relate to the responsibility of researchers, to be honest, and respectful to all individuals who are affected by their research studies or their reports of the studies' results.

The questionnaire which was used to gather data had a cover letter which informed the participants of their rights and the purpose of the research study. The following specific ethical guidelines were observed:

a) **Institutional approval**: CPUT requires all students to request for ethical clearance before they embark on any kind of research. This is done to ensure that novice researchers (particularly students) do not breach the ethics rules and values. Ethical clearance is required by the institution's Higher Degree Committee. The HDC is a committee that decides whether one can continue with their research or not, after noting various requirements, which also include ethical clearance. The research was cleared for ethics by the Ethics Committee of the faculty of Business and Management Sciences (see Appendix D), which gave the researcher the opportunity to decide the date when he was going to carry out the research.

b) **Informed consent:** Cooper and Schindler (2011) noted that the researcher should disclose the procedure of the proposed survey before proceeding with the study. The researcher first explained what the research is about and the participant's rights and protections, before handing out the questionnaires. The questionnaire cover page also had the ethical guidelines which the respondent had an option of either to read or listen to the researcher's narration.

   According to Gravetter and Forzano, (2009:104) Informed consent encompasses the following (1) the purpose of the research and expected duration of answering the questionnaire survey, (2) their right to decline to participation and withdraw from the research once participation has begun, (3) any prospective research benefits, (4) limits of confidentiality, (5) incentives for participation, and (6) who to contact for questions about the research and researchers' rights

c) **Confidentiality:** According to Henn, Weinstein and Foard (2009:94) confidentiality is "an active attempt to remove from the research records any identifying features of the research participants". The researcher ensured that the information provided by the

respondents is not divulged to any other third part. The data that was gathered using questionnaires was used only for research purposes while the questionnaires were discarded thereafter.

d) **Anonymity:** Anonymity means that those who participate in the research remain nameless (Henn et al., 2009:94). The respondents were informed not to identify themselves. They were asked to answer the questions anonymously and the participants' responses were not linked to their personal identification.

e) **Withdrawal:** Participants were informed that participation in the research was on a voluntary basis and they are allowed to discontinue at any point.

1.7 Overview of chapters

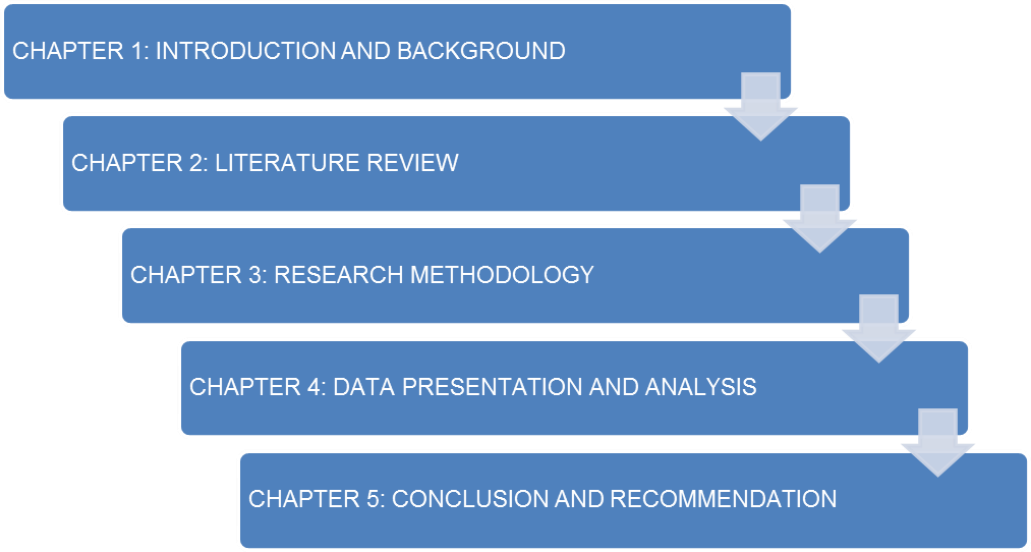


Figure 1.1: Chapters outline

Figure 1.1 above shows the research study outline. This dissertation is divided into five chapters; the first chapter provides the introduction and background of the study. The statement of the research problem and main research questions and objectives are also highlighted in this chapter. Chapter two is a review of literature related to the study and chapter three describes the research design that was used in this study. Chapter four is a presentation and interpretation of data that was obtained from the survey, and chapter five presents the key findings of the study and further recommends strategies that can be used to improve OGS adoption.

CHAPTER TWO
LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

The preceding chapter was the genesis of the study which provided the introduction, background and the problem statement for the study. The research questions and objectives of this study were also highlighted in the previous chapter. Furthermore, the significance of the study and ethical issues that were adhered to in this study were also discussed in chapter one.

The purpose of this current chapter is to explore the concept of e-commerce, its historical developments, structures and functional aspects. Secondly, the chapter provides a background to OGS as it applies to several countries of the world, including SA.

2.2 E-commerce

Electronic commerce (e-commerce) is the sale or purchase of goods or services via the Internet between enterprises, households, individuals, governments and other public or private organisations, in which payment and delivery can be done on- or offline (Cox & Brittan, 2004:5; Chipp & Ismail, 2008:5; UNCTAD, 2015; Awa et al. 2015:572). Kurnia (2008:413) also defines e-commerce as an exchange or transfer of products/services and/or information via computer networks which include the Internet, extranet and intranet. Basically, e-commerce is a virtual commerce platform where buyers, sellers and other interested parties meet to do business transactions. Schneider (2013:5) further clarify that e-commerce is not only about buying merchandise as secularly known, but it involves a lot of other transactional activities as described above.

Moreover, Schneider (2013:5) asserts that e-commerce became popular in the 1990s and has been growing rapidly over the past decades both in developed and developing countries. In China, e-commerce emerged in the year 1998 when Ailbaba.com was launched by Jack Ma and Partners (Clemes et al., 2014:365). The authors further highlighted that after the launch of Alibaba, many other e-commerce platforms emerged, such as Amazon, eBay and Alipay. By the year 2010, China had the highest number of Internet users, spending about 1 billion hours daily, which is double the daily hour spent online by US consumers. In the same year, China's e-commerce amounted to 523.1 billion renminbi (RBM); however, e-commerce activities in China are not yet as developed compared to the US. Although signs of e-commerce in the US appeared around 1989 (Kurnia, 2003:219; Al-nawayseh et al., 2013:42), Jeff Bezos, the founder of Amazon.com in 1994, is attributed to be one of the pioneers of the rise of e-commerce in the US and beyond. Bezos decided to start an Internet bookstore that would make shopping easier, faster and personalised compared to traditional bookstores. The success of this e-commerce

venture has made Amazon the largest online retailer in the world with annual sales of about US$48 billion (Levy et al., 2014:19). After the advent of Amazon, the years that followed saw the increase in the number of e-commerce businesses in the US, a period famously known as the dot-com boom and burst (Delaney-Klinger; Boyer & Frohlich 2004:188; Boyer & Hutt, 2005:643). In SA, there were e-commerce activities that were recorded around the year 2001 (Crocker, 2005:1), however, Thomas White International (2011:9) posits that e-commerce only became popular in 2007. So, far e-commerce developments vary from one country to another.

According to Botha, Bothma and Geldenhuys (2008:3) e-commerce was made possible by the growth and use of ICT such as the Internet. The Internet was initially developed in the US in the 1960s and it is described as a network or a system of interrelated components that allow communication and sharing of information between computers that are linked to the system (Chipp & Ismail, 2008:5). Businesses and individuals can now effectively and efficiently communicate and transact online (Lawrence et al., 2003:2; Nirmal, 2008:4; Agarwal & Wu, 2015:197). In addition, Keisidou et al. (2011:32) postulate that the Internet is increasingly being accepted as a business transacting platform across the globe. The Internet provides cost-efficient flow and access of information, which enables organisations to do data mining to understand patterns and methods they can use to better serve their target markets (Gregorio et al., 2005:156; Khaskheli & Jun, 2016:12). In SA, according to Goldstuck (2012:21) the growth of Internet use by organisations and individuals is attributed to:

- The increased use of mobile devices such as smartphones to access the Internet,
- Increase in the use of Asymmetrical Digital Subscriber Lines (ADSL) in small and medium enterprises (SMEs),
- Increase in social networking,
- Increase in local content on the Internet, and
- Increase in competition among broadband service providers which brings down costs and enhances greater awareness

Furthermore, Mosteller et al., (2014:2486) also noted that Internet-enabled mobile devices such as smartphones and tablets play a vital role in the use and growth of the Internet as both a social and commerce platform. Moreover, in 2011, Internet penetration statistics as recorded by World Wide Worx in Africa shows that Morocco had 49%, Nigeria 29%, Egypt 26% and SA 17% (Goldstuck, 2012:1). Internet penetration in SA appears to be slower compared to some African countries (ibid). Certainly, e-commerce can strive successfully in countries with high Internet penetration.

The benefits of e-commerce are immense. This trading platform enables organisations to access and serve markets that were previously inaccessible through traditional commerce methods (Botha et al., 2008:3). In concurrence, Zaied (2012:9) postulates that e-commerce enhances both small and bigger enterprises to sell their merchandise and services to geographically dispersed consumers. Supporting these views, Gregorio et al. (2005:155) aver that ICT technologies improve companies' access to vast information which enhances their abilities to successfully serve both new and existing markets. Also, the information accessed is useful in crafting a global competitive advantage. For example, in Italy, e-commerce enabled small enterprises to improve customer service, increase market growth and establish new target markets, while in other countries e-commerce improved business efficient and increased revenue growth (Ramanathan, Ramanathan & Hsiao, 2012:941). Ramanathan et al., endorses Kurnia (2008:413) view that e-commerce improves productivity, reduces costs and also enhances flexibility in organisations. Goldstuck (2012:10) attributes e-commerce to the emergence and sustainability of SMEs in SA. The author concluded that most of SA's SMEs cannot survive without an online presence. In addition, Ramanathan et al. (2012:941) discovered that the marketing and operational effects of e-commerce have a significant impact on organisational performance. In contrast, Botha et al. (2008:9) posit that although e-commerce enhances organisational competitiveness, it does not provide a lasting competitive advantage because it can be easily replicated. However, as alluded above the importance and significance of e-commerce to organisations' survival and sustainability in this global business era is growing in prominence.

Studies conducted by scholars (Zhu & Thatcher, 2010:53; Lawrence & Tar, 2010:23; Zaied, 2012:9; Agarwal & Wu, 2015:197; Khaskheli & Jun, 2016:12) regard e-commerce as a new economic driver in developing countries. Zhu and Thatcher (2010:53) postulate that even in developed countries, e-commerce plays a major role in supporting economic development. As discussed earlier, e-commerce enhances business viability, which subsequently helps these organisations to employ more people or engage in social corporate responsibility, resulting in the reduction of poverty and an increase in living standards. The adoption of e-commerce in both the developing and developed world becomes of paramount importance. E-commerce markets are efficient and are unparalleled to traditional markets (Gan et al., 2007:474; Awa et al., 2015:573).

In contrast to developed countries, developing countries still face many challenges to achieve mass use of e-commerce. According to Gregorio et al. (2005:155) companies that are on the less developed side of the digital divide cannot effectively compete in this digital era. Kurnia (2008:413) denotes that e-commerce can bridge the digital divide that exists between developed

and developing nations through its positive effects on universal access to information, thereby improving knowledge and expertise which developing countries can use to enhance their competitiveness. Chipp and Ismail (2008:16) aver that unbalanced access to new technology between the poor and the rich in SA can further perpetuate the marginalisation of the historically disadvantaged people. Moreover, Zaied (2012:11-12) posits that, although there is a great need to grow e-commerce in developing nations, there are several barriers that still need to be overcome before e-commerce reaches its maximum success level. Lawrence and Tar (2010:25 citing OECD, 2004) who summarised e-commerce barriers as follows:

- Lack of enough infrastructure which includes technology, network availability of ICT skills, qualified personnel,
- Unavailability of enough capital to acquire and sustain ICT equipment and networks,
- Security and trust factors such as uncertainty of payment methods, legal frameworks and
- Other barriers including poor distribution logistics and problems in returning products.

For e-commerce to break from niche to mass use in developing nations, the above-mentioned barriers should be addressed. However, to influence e-commerce diffusion and adoption AlGhamdi, Nguyen and Jones (2013:89) propose that there are four spheres which should be considered. These include businesses, customers, environmental factors and government support. Among these factors, government support is considered the most vital element to the growth and use of e-commerce by individuals and companies (Goldstuck, 2012:7; AlGhamdi et al., 2013:91). The government can create an environment within a country that can either promote or weaken the use of e-commerce by both consumers and organisations. For example, weak legal frameworks have been cited by Al-nawayseh et al. (2013:43) as one of the significant barriers to the implementation of e-commerce models. Similarly, Chipp and Ismail (2008:16) postulate that although e-commerce allows organisations to sell merchandise across borders but the legal frameworks are not yet efficient to tax, regulate or punish e-commerce firms. Both developed and developing nations should ensure that universal ICT regulatory frameworks are in existence and up-to-date to fully govern the e-commerce transactional relations. Government support is a critical factor in the growth of e-commerce and can be in the form of funding, training, legislation and collaborations with other countries (Goldstuck, 2012; AlGhamdi et al., 2013). For example, the SA government allocated R1.2 billion in 2010/2011 to enhance the Internet and broadband access (Goldstuck, 2012:7). Also, in Saudi Arabia, after the emergence of e-commerce in 2001, the government assigned a committee to oversee the development of this phenomenon (AlGhamdi et al., 2013:89). Moreover, Gregorio et al. (2005:155) denote that

countries should use ICT developments to bridge the digital divide which further expands existing markets and opens new market opportunities for e-commerce entrepreneurs.

Botha et al. (2008:8-9) suggest that for organisations to fully realise the benefits of Internet infrastructure, there are a series of steps they need to go through. The stages are also a measure of Internet or e-commerce use among organisations, and they can be used as a benchmark for improving the use of the Internet. These stages include:

- **Exposure stage**: at this stage, an organisation uses the Internet to provide information to its consumers. At this point, the Internet is mostly used to provide informative information to its prospective users. All organisations that have web sites as information boards fall within the exposure stage.
- **Interaction stage**: at this point the organisation uses the Internet to interact with its customers. The Internet is viewed as a communication platform. It is at this stage that the Internet starts to impact on the activities of the organisation. The Internet starts to be included in the organisational operational activities. For example, Shoprite in SA has a website which it minimally uses to communicate with its target markets.
- **E-commerce stage**: at this stage, the websites are not only regarded as an interactive platform but also a well-designed interface for selling merchandise. Logistical strategies are also designed to enhance the delivery of merchandise bought on the Internet by consumers. Retailers such as Pick n Pay, Woolworths and Mr Price in SA have websites that allow consumers to buy merchandise online.
- **E-business stage:** this stage involves organisations incorporating the Internet into all aspects of the organisational activities. The organisations now use the Internet to enhance efficiency and effectiveness of the firms' activities, both internally and externally. For example, organisations communicate with the suppliers via emails, thus external communication, while also internal communication consists of electronic meetings.

The e-business stage is concerned with the overall organisational performance by using the Internet in all business activities. However, this study focuses on the e-commerce stage which basically entails the selling of merchandise and linking up logistical processes to order fulfilment. The research and development functions of the organisation assist them in determining their level of e-commerce utilisation.

Pure play stores were not directly described by Botha et al. (2008:8-9). Pure play stores do not have a physical store presence, but operate purely online. They use warehouses as storage and customer goods distribution centres (Hoojisma, 2014). These stores are at the e-commerce

stage, because from inception they already sell merchandise online to their target markets. In essence, the above e-commerce stages are paths which brick-and-mortar retail stores follow to fully utilise the Internet as a commerce platform. However, it should be noted that the stages are not standardised as an organisation can emerge at any stage. To further provide descriptions of e-commerce structures, its categories are discussed below.

2.2.1 E-commerce categories

There are different categories and types of e-commerce; these include Business to Business (B2B), Business to Government (B2G), Business to Consumer (B2C), as well as Consumer to Consumer (C2C). Although all the categories are discussed in length below, this study mainly focuses on the B2C e-commerce.

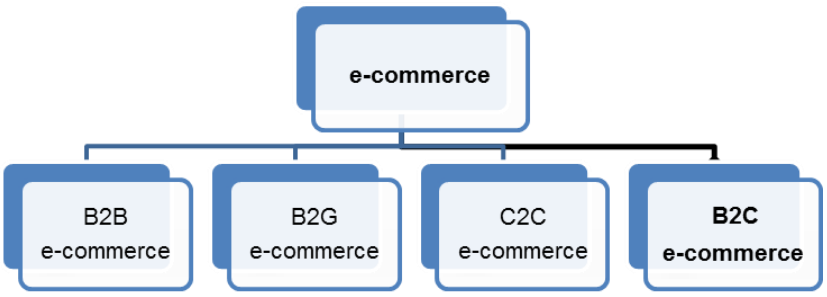


Figure 2.1: E-commerce categories

(source: Author)

B2B e-commerce involves transactions between businesses such as retailer and supplier, or retailer and bank, or manufacturer and wholesaler. This e-commerce category accounts for the largest share of e-commerce transactions. UNCTAD (2015) posits that B2B accounts for 80% of e-commerce transactions. This segment of e-commerce will continue to grow faster than any other e-commerce segment, and will continue to dominate e-commerce transactions (Zorayda, 2003:9; UNCTAD, 2015:3).

C2C e-commerce is commerce between individuals or consumers in the cyberspace (Zorayda, 2003:12; Agwu & Murray, 2014: 194; UNCTAD, 2015:3). The growth of this e-commerce category is facilitated by the rise in electronic marketplaces and online auctions (Zorayda, 2003). Examples of these C2C platforms are eBay, BidorBuy and OLX. Social networks such as Facebook, Twitter and LinkedIn, are the main catalysts for the growth of these peer-to-peer platforms.

B2G e-commerce is transactions between businesses and the government such as public procurement (UNCTAD, 2015). Zorayda (2003:12) further describes B2G as the use of Internet licensing procedures and other government-related operations such as paying tax.

B2C e-commerce is transactions that involve consumers and businesses, where consumers interact with a business (such as a retailer) via electronic platforms, and purchase merchandise services or goods via a secure network. The services or goods are delivered through either electronic or physical channels (Zorayda, 2003:11; Agwu & Murray, 2014:194). B2C is considered to be the second largest and earliest e-commerce category (Zorayda, 2003:11; Schneider, 2013:11). UNCTAD (2015:3) highlighted that pure play stores or brick and mortar stores that have added an online channel, are part of this type of e-commerce. Figure 2.2 highlights the growth of global B2C e-commerce category sales.

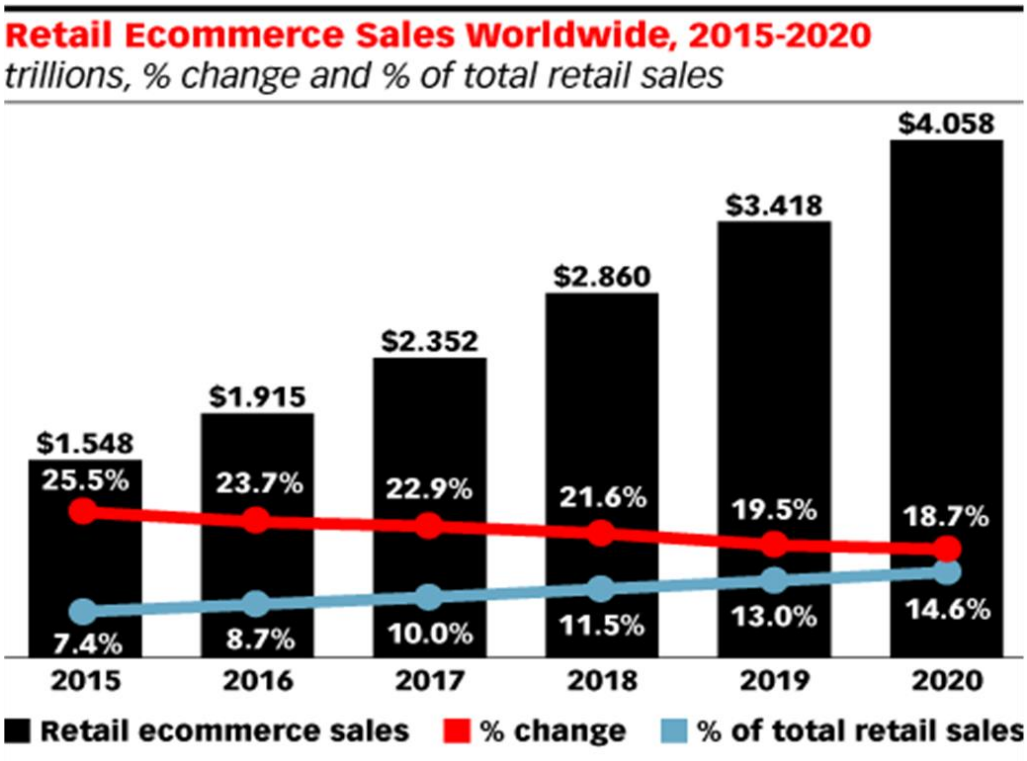


Figure 2.2: Retail e-commerce sales

Source: eMarketer (2016)

Figure 2.2 above depicts retail e-commerce actual and projected sales. The methodology used by eMarketer to come up with the figures shown on the graph above involves a range of sources, such as governmental agencies, past sales reports, published and estimated sales for major retailers, online consumer buying behaviours and macro-economical factors (eMarketer,

2016). Retail e-commerce sales are expected to reach $4.058 trillion by the year 2020 from an estimated total of $2.352 trillion for this year 2017. Schneider (2013:11) posited that B2C e-commerce will continue to rise in the future, and eMarketer (2016) highlighted that Asia-Pacific will be the main contributor to the growth, with China representing 47% of all such worldwide sales. However, e-commerce sales should double but its being affected by the infrastructure limitations and trade restrictions (eMarketer, 2016). In North America, e-commerce sales are expected also to rise because of the continuous increase in digital consumers (eMarketer, 2016). Organisations need to take cognisance of the significance of e-commerce and adopt it as a business transacting platform to better serve their target markets and also to enable them to compete effectively in this digital era.

Below is a comprehensive discussion of the various factors that can push or pull businesses such as retailers to adopt an e-commerce business format. E-commerce readiness entails organisational ability to adopt and use effectively and efficiently (Kurnia & Peng, 2010:211).

2.2.2 E-commerce readiness framework

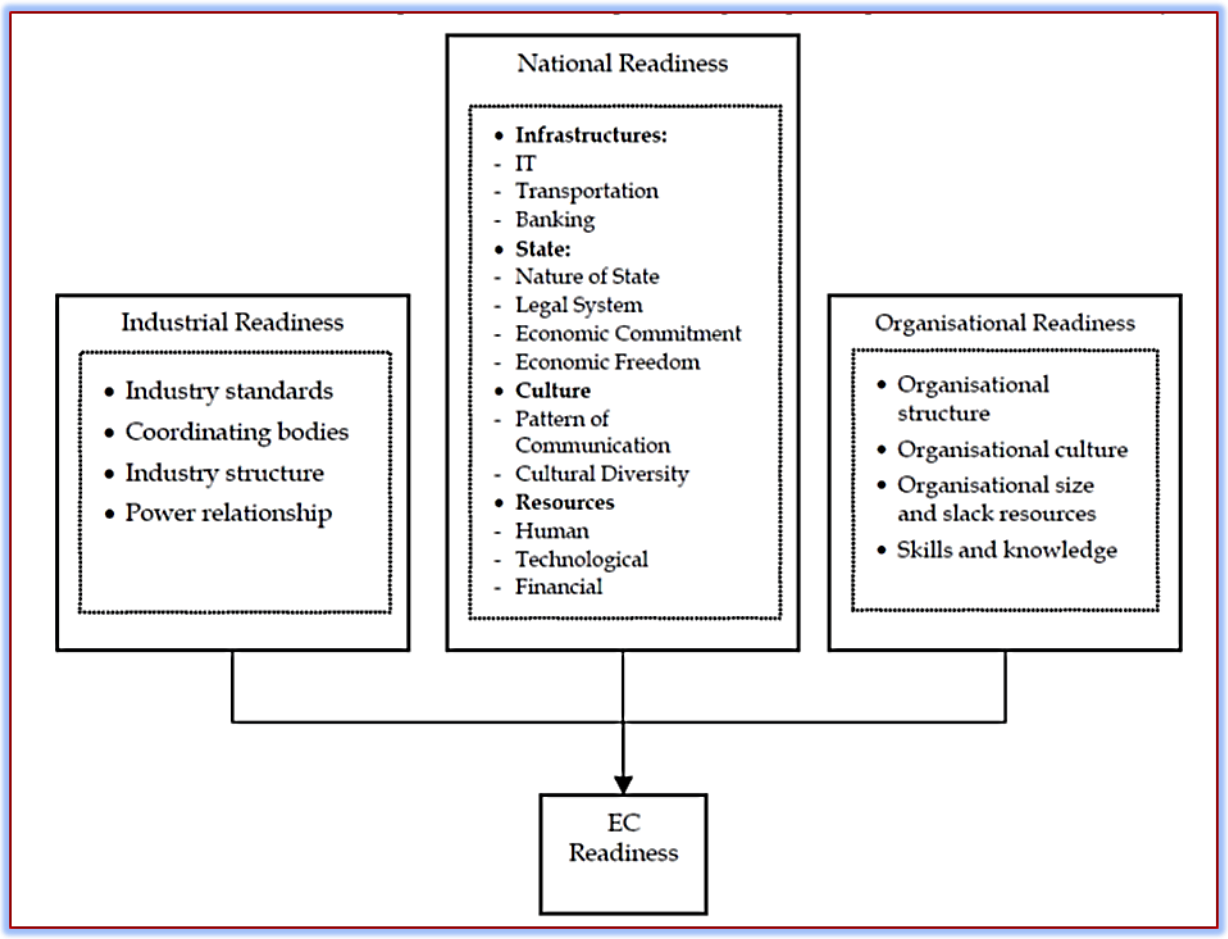


Figure 2.3 E-Commerce readiness framework

Source (Kurnia & Peng, 2010:211)

E-commerce adoption by organisations offer immense untapped opportunities, however, the adoption is dependent on various internal and external parameters. These various variables that affect various organisations to adopt or not are highlighted in Figure 2.3 above. The factors include industry readiness, national readiness and organisational readiness (Kurnia & Peng, 2010:211).

Industry readiness represents the business environment which the organisation is operating in, either it provides the opportunity for e-commerce venture or not. This is determined by industry standards, the supply chain, other value adding service organisations and existing relationship with other organisations (Kurnia & Peng, 2010:211). Moreover, Scupola (2009:156) suggest that consumer willingness to utilize the e-commerce as shopping method play a huge role in organisation decision to implement or adopt e-commerce. Organisations should first analyse

their target markets' behavioural intention to adopt internet shopping for the organisation to succeed in this platform. Additionally, Scupola (2009:156) postulated that suppliers play a role in their willingness to promptly supply the businesses with the needed merchandise to meet different demand trends. Another factor to be considered is organisational readiness.

Organisational readiness represents organisation's internal abilities to adopt and use e-commerce technologies. This is gauged by organisational structure, culture, size and resources; and the skills and knowledge of the organisations (Kurnia & Peng, 2010:210). Furthermore, Elahi and Hassanzadeh (2010:29) emphasise that organisational readiness is usually influenced by the top management. They determine the culture, structure, size of the business and how resource are utilised within an organisation. Their influence can either propel the easy adoption of e-commerce of the difficult thereof (Scupola, 2009:155; Elahi & Hassanzadeh, 2010:29). However Scupola (2009:155) highlighted that besides top management role in e-commerce adoption, other internal factors are equally a barrier to e-commerce adoption, this could be organisation size which affects the level of revenue necessary to sustain an e-commerce venture.

National readiness involves the state, infrastructure, culture and resources. These also play a role in either enabling or as an obstacle to e-commerce adoption by organisations (Kurnia & Peng, 2010:210). This includes the economic status of the nation which involves the inflation rates, exchange rates and interest rates etc in a given country. As previously discussed, government involvement in fostering e-commerce is vital. Government can assist in providing an enabling environment for e-commerce ventures, thus through regulating the platform with laws that promote fair competition and security (Scupola, 2009:156). Also, government investments in the e-commerce infrastructure are essential, these includes technologies that enable easy and quick transacting and communication (Goldstuck, 2012).

The e-commerce readiness framework suggests possible determinants for organisation readiness to adopt e-commerce. The following discussion is about the rise of online retailing in general and how it apply to this study.

2.3 The emergence of online retailing

According to Levy and Weitz (2009:55), online retailing (also known as e-tailing, electronic retailing and Internet retailing) is defined as "a retail format in which the retailers communicate with customers and offer products and services for sale over the Internet". This new retailing

segment is gaining phenomenal growth across the globe (Hansen, 2008:128; Roy Dholakia & Uusitalo, 2012:459; Ahmed et al., 2013; Levy et al., 2014:68). Consumers are using various Internet-enabled gadgets such as smartphones and tablets to buy online, and this has made online retailing a prominent topic in the past decade (Mosteller et al., 2014:2486). Roy Dholakia and Uusitalo (2012:459) further indicated that non-store retailing segments are growing at a much faster pace compared to any other retail segments. This has made online retailing a threat to traditional brick and mortar retail retailing (Cox & Brittain, 2004:5; Clemes et al., 2014:365). However, Levy et al. (2014:69) aver that when the Internet emerged, retail experts thought that all offline retail formats such as brick and mortar stores, and catalogue retailers were going to close down because consumers would opt for online retailers. However, it later emerged that online retailing is an evolution rather that a revolution shopping channel.

The growth of electronic retailing can be attributed to the increased use of the Internet by both organisations and individuals (Dutta & Segev, 1999:446). Clemes et al. (2014:364) describe the Internet as easy, simple and cheap to use. The authors further assert that it is easily accessible to consumers and business which makes it viable for transactions. Some authors aver that the growth and use of the Internet are unmatched by any other form of technology in history (Lawrence et al., 2003; Nirmal, 2008). Moreover, Datamonitor (2010:6) avers that the Internet has now become an inseparable part of consumers' lives. Similarly, Salehi (2012:81) postulates that hundreds of millions of consumers have access to the Internet, and its use has surpassed other communication mediums such as radio, television and newspapers. The Internet is gaining acceptance as a platform for transacting and communicating across the world (Changchit, 2006:177; Richard, Chebat, Yang & Putrevu, 2013:926). However, Changchit further highlighted that not everyone using the Internet to shop completes their shopping experience online. Most shoppers browse websites for information about products and services then complete their shopping physically. Moreover, Salehi (2012:395) denotes that young people are the majority Internet users; though they resort to gaming, social networking and information searches, thus do not necessarily buy online. Close and Kukar-Kinney, (2010:986) posit that there is a need for more research that focuses on why consumers do not complete their shopping online. Furthermore, Saprikis, Chouliara and Vlachopoulou (2010:1) confer that the reasons why consumers shop or do not shop online are crucial for e-commerce managers and consumer theorists, yet Keisidou et al. (2011:32) admit that the reasons why many consumers still avoid shopping online are not fully known. The findings of a study by Kacen et al. (2013:19) discovered that consumers are still inclined to shop in physical stores; however, the authors suggested that more studies should be done to validate these findings. In addition, Clemes et al. (2014:364) confer that consumer online behaviours differ from one country to another. Endorsing

the need to improve the use of online stores, Lian and Yen (2014:141) noted that the use of ICT technologies such as shopping online improves and enhances the livelihoods of consumers, especially for the older generation.

The emergence of online retailers can be examined through the lenses of theories of retail change. These theories explain what changes happened in past and what could possibly occur in the future (Fernie, Fernie & Moore, 2003:48). Retail experts and marketing managers have used these theories in trying to predict future changes in the retail environments (Fernie et al., 2003:48; Cox & Brittain, 2004:5-6). Four theories of retail change originated from North America, and are applicable in other parts of the world (Cox & Brittain, 2004:5). These four theories include Natural selection in retailing, the wheel of retailing, Accordion theory and the retail life cycle.

The theory of Natural selection in retailing was derived from Charles Darwin's theory of natural selection (Cox & Brittain, 2004:6). This theory suggests that retail developments are an adaptation to changes in the retail environment. The changes in the environment are attributed to three elements which are consumer behaviour, technology and competition. Changes in consumer behaviour such as population demographics or changes in consumer lifestyle cause retailers to make changes that meet these changes. Similarly, technological changes push retailers to conform and adapt to modern technologies for them to remain efficient and relevant to this era. And competition is also another factor that forces retailers to look for ways that enable them to out-compete their rivals, which might require retailers to change their formats or service and products offerings.

Retailers might have conformed to the theory of natural selection when they sought to be adaptive to technological changes, as online retailing emerged as a lucrative way of selling merchandise. The competition in the retail sphere can also be a reason that led retailers to sought for another retail format that enables them to reach new markets cost effectively. And consumer behaviour changes can also be a significant factor that led retailers to open online ventures as they endeavour to meet current demands o informed consumers.

Another theory of retail change is The wheel of retailing theory was formulated by a McNair a Harvard University Professor (Cox & Brittain, 2004:6). McNair postulates that a new innovation that enters the retailing market, draws a huge traction of consumers, and the innovation reaches growth and maturity which leads to increased prices as a means of trading up. Once again new innovation can rise which might replace the current innovation. Online retailing can be

considered as a shopping innovation that arose to replace old ways of retailing, however, the opportunities of online retailing are still being developed as retailers have not yet comprehended how online consumers behave when buying merchandise.

The accordion theory, also known as the general-specific-general cycle, hypothesise a characteristic of retail businesses to became dominated (by alternatively generalists, then specialists and then generalists again) (Cox & Brittain, 2004:7). The switch to the specialist store from the old-time general store occurred because of retailers looking for better ways to serve the consumer, by specialing of specific merchandise and then widen their merchandise offerings (general retailers). These changes were more driven by both retailers internal and external factors. Online retailers are easy to adapt to any changes by the retailers as it does not involve the movement of physical features of a store layout, so this enables retailers to tailor its services in an efficient and effective manner.

The retail life cycle theory: this theory is similar to the product life cycle. The retailers also go through stages of growth, these stages are innovation, growth, maturity and decline (Cox & Brittain, 2004:7).

a) Innovations stage. The retailer will have few competitors, rapid growth in sales but low profitability due to start up costs.
b) Growth phase. Sales growth is still rapid and profitability is high due to the economies of scale now possible. However, competitors will spot this and begin to encroach on this market.
c) Maturity stage, there are many competitors, sales growth has declined and profitability moderates.
d) Final decline phase. Sales and profits fall and new, more innovatory retailers are developing and growing.

It can be explained that e-tailers might have emerged as alternatives at the decline phase or as an alternative to growing sales within retail businesses.

Shopping online is considered more advantageous that offline shopping (Changchit, 2006:177; Richard et al., 2010:926; Javadi, Dolatabadi, Nourbakhsh, Poursaeedi & Asadollahi, 2012:81). According to Trevinal and Stenger (2014:317), online shopping enhances the social shopping experience because consumers are able to interact with family and colleagues on social media such as Facebook and Skype while shopping. Consumers can check reviews, product/brand

ratings and recommendations about different products by other consumers online, which is relatively difficult to do offline. Blogs have also been used to share views and comments about product performances, and consumers are increasingly trusting reputable blogs as a source of advice and information (Hsu, Chuan-Chuan Ling & Chiang, 2013:70). Online shopping platforms provide consumers with a plethora of information which helps consumers to make informed buying decisions. Also, Clemes et al. (2014:364) highlighted that online shopping's advantages outweigh that of traditional shopping methods. Convenience has largely been the main advantage and driver of online shopping (Clemes et al., 2014; Jiang, Yang & Jun, 2014:191).

Growing demands on consumers' time and the rise in consumer wealth, has posed challenges and opportunities for consumer goods firms (Lim et al., 2004:67). These socioeconomic factors have influenced the growth of online retail stores. However, most consumers have indicated that privacy and security are still key deterrents of their intention to buy online, and these factors are still negatively perceived (Saprikis et al., 2010:1). Also, lack of instant gratification or lack of sensory satisfaction and the uncertainty of purchases outcomes are a barrier to online shopping (Changchit, 2006:178; Murphy, 2007:949). Moreover, delivery charges, return refund policy, lack of social experience when shopping, inability to consult salespeople face-to-face, post-purchase services, and the fear of not getting the right product at the right time have been attributed to the reduction or slowing of online shopping adoption (Kacen et al., 2013:12).

Despite the limited knowledge of online shoppers' behaviours, online retail sales are on the rise. The number of online shoppers and the quantity per buy in Europe is increasing proportionally (Perea y Monsuwe, Dellaert & De Ruyter, 2004:102). Furthermore, Salehi (2012:395 citing Nielsen Global, 2007), who did an online survey and discovered that more than half of Internet users had purchased at least once online. In 2009, online retail sales reached US$145 billion in the region and about 37% of European Union (EU) Internet users had previously shopped online. Also, more than 60% of Internet users in the UK, Netherlands, Sweden, Norway and Denmark had used online shops for their shopping needs (Keisidou et al., 2011:32). Additionally, Celik (2016:278) posits that global online retail sales were US$632 billion in 2012. Also, US online retail sales are expected to grow at a compound rate of 10%, from US$262 billion in 2012 to US$370 billion in 2017 (Mosteller et al., 2014:2486). This growth of online sales has triggered the need to understand factors that influence online consumer buying decisions (Clemes et al., 2014:365).

For retailers, online retailing channels enable them to engage effectively in this global world (Douglas, 2013). Among other benefits of electronic retailing, retailers can now reach previously inaccessible markets, and can sell merchandise worldwide. Online channels can assist retailers

to reduce costs, fight competition and can improve customer service (Wilcox & Gurau, 2003:181; Lawrence et al., 2009:55). However, setting up and maintaining online channels, has its own challenge. In the years 1997-2000, several millions of dollars that were invested in electronic retailing were lost. The dot-com bubble-burst occurred between the years 2000-2003 (Delaney-Klinger et al., 2003:187; Kempiak & Fox, 2002; Boyer & Hutt, 2005:643; Schneider, 2013:5). Investors and retailers were in a heist to take advantage of the first-mover advantage, however, due to lack of understanding of online markets and mismatch of marketing and logistical strategies, the online business boom was curtailed (Kempiak & Fox, 2002; Delaney-Klinger et al., 2004:187). This led to the need for thorough research that helps to understood this new retail shopping segment and consumer online behaviours. Thus far, most researchers on online shopping have a Eurocentric view, and gaps exist in other parts of the world (Rahman et al., 2013:9).

Another element of online retailing that should not be underrated is a website. According to Clemes et al. (2014:365), website characteristics have an impact on consumer online shopping behaviour. Trevinal and Stenger (2014:319) concur with Clemes et al. and further postulate that websites should be attractive. Websites can either influence consumers to buy more or discourage them from buying. Further endorsing this view, Levy et al. (2014:485) assert that the design of the store or website has a significant influence on consumer buying decisions. The design determines the number of consumers who are attracted to the site or store, the amount of time a consumer spends in the store or site, the number of items a customer buys, and further determines future visits to the store or site. Moreover, Clemes et al. (2014:365) posit that retail store websites should be easy to navigate, provide adequate product information, and be entertaining and trustworthy. The author also holds a view that poor websites de-attract consumers to shop online. Richard et al. (2013:933) assert that successful websites should be current, moderately challenging and entertaining, although males and females differ in their website design needs. The Richard et al. further posit that males incline more towards websites that are entertaining, challenging and well-structured, while their counterparts are attracted to detailed information, entertaining, and should still be stimulating websites. Therefore, the retailer should carefully consider the design quality of their websites.

In the discussion above about online retailing, one of the key issues that was reviewed is consumer online behaviour. It has been argued that there is still limited knowledge about why consumers decide to shop or not shop online. However, the following discussion reviews how online consumers make their shopping decisions.

2.3.1 Online consumer buying decision-making process

Consumers go through a process of deciding what to buy, when to buy, how much per buy and other decision needs. However different consumers engage in different buying decisions, for example on and offline shoppers' shopping decision-making processes differ (Javadi et al., 2012:81). This discussion mainly highlights how online shoppers make their shopping decisions. E-marketers and online retail managers need to understand how online consumers make their buying decisions so that they can tailor make their market communication strategies to specific consumer decision-making stages (Sheth et al., 1999).

Figure 2.4 below shows an online consumer buying decision-making process.

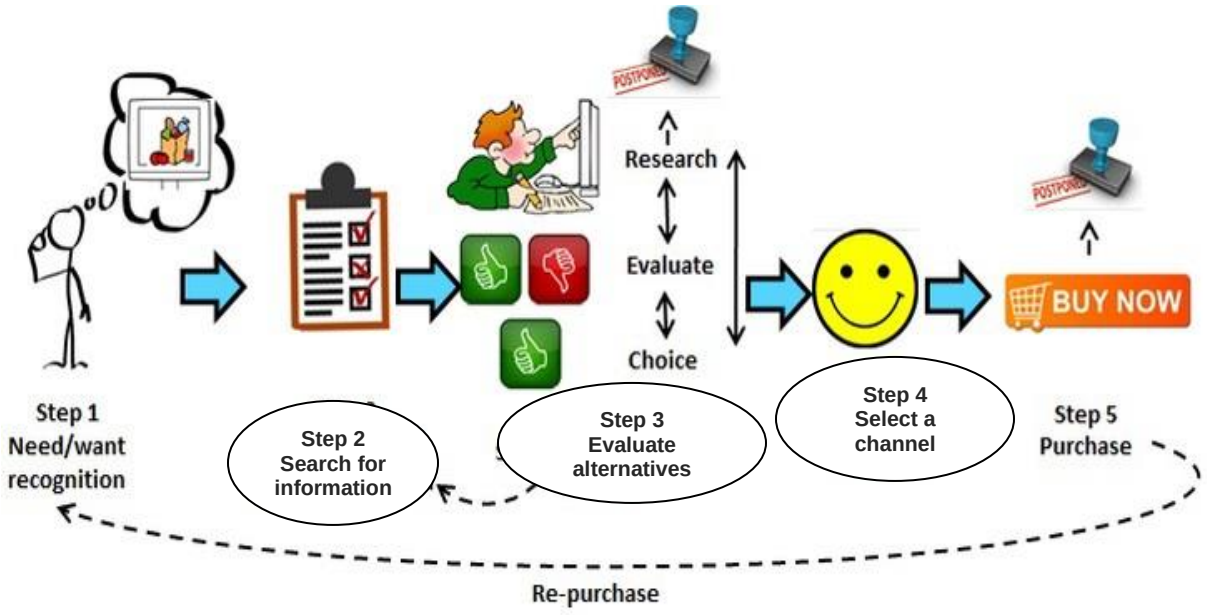


Figure 2.4: Online consumer buying decision-making process

Source: Hooijisma (2014)

Consumers engage in decision-making when they want to buy any merchandise from a store. Depending on the type of merchandise, some require extensive decision-making while others require non-extended decision making. The following is a discussion of these various stages or steps:

- **Step 1: Need/Want recognising**

This is the genesis of the consumer decision-making process Consumers recognise that they have a consumption problem that needs to be solved (Sheth, Newman & Gross, 1999:520; Hoojisma, 2015; Hoyer, MacInnis & Pieters, 2013:185), for example, a consumer recognises he/she needs to buy groceries or any product or service. Usually, needs identification is evoked

by an internal stimulus such as hunger or by external stimuli such as an advertisement on social media or television. Some researchers identify this stage as problem identification, where consumers are in a state of “deprivation, discomfort, or wanting” (Sheth, Newman & Gross, 1999:520). Also, Hoyer et al. (2013:185) describe this stage using the phrase *“ideal state”* versus *“actual state”.* Consumers want to move from the actual state to the ideal stage. The ideal state is the way they want things to be while the actual state is the way things are. Consumers desire to go back to the state of comfort, so they need to buy something to fulfil that need or want (Sheth et al., 1999).

- **Stage 2: Formulation of decision problem or search for information**

After identifying a need or want, the next step for consumers is to search for information about retailers and merchandise products that will help them to satisfy that need/want (Levy et al., 2014:93). For example, an online consumer searches for information on various websites. Levy et al. (2014:94) postulate that there are two types of information search: (i) internal sources – which consumers consult their intuition (that is the information that they know already about the retailers and their merchandise offerings), and (ii) external sources – this is when consumers search for information from other sources such as Google, friends and social media. Furthermore, Jiang et al. (2013:207) posit that current technological capabilities allow consumers to search for information easily and can make informed decisions.

- **Stage 3: Evaluate alternatives (channels)**

In this stage, consumers search for alternatives, evaluate them and then decide (Hooijisma, 2014). After gathering information about various online retailers and their merchandise offering, the next step is to evaluate these alternatives (Levy et al., 2014:98). At this stage, consumers weigh or look for the best online retailer store and or product which can best satisfy their needs.

- **Stage 4: Select a channel**

When consumers have finished evaluating alternatives, they then choose the best option (online retailer and merchandise). At this stage, they have identified specific details of what they want to buy, where they want to buy it, how they will buy it. After selecting the online retailer and merchandise they want to buy, they then proceed to make a purchase.

- **Stage 5: Make a purchase**

Consumers then proceed to purchase the product from their chosen online retail store. Many consumers then proceed to purchase offline, particularly those that encounter barriers to online purchases (Hooijisma, 2014). Levy et al. (2014:101) suggested that the best choice of where

and what to purchase, is not a guarantee that consumers will opt for it. There are other controlling factors which might compel consumers to select the second best or third best option.

- **Stage 6: Re-purchase**

If the consumer is satisfied with the process, they will shop again at the same online retailer. Levy et al. (2014:101) extrapolate that the buying process is not complete after the consumer has finished the purchase. They further mention that after the purchase of a product, another cycle may start soon. If the consumers are not satisfied with the online buying process from the online retail store, they might discontinue purchasing from the store. However, if they are satisfied, it can be a guarantee that they will purchase again from the same store/same product or use the same channel.

Noticeably, online retail store advertising on social media or other relevant media helps the consumer to realise the need or want for the specific product. During an information search, an online consumer uses the Internet or friends and family as informants. The online retailer should be easily searchable online and offer good services which enable word-of-mouth marketing. The store website characteristics play a role in a consumer's choice of alternatives. Depending on how well the consumer's expectations are met, they then decide to shop or not shop at that specific retailer (Levy et al, 2014).

The following discussion is about online payment methods (e-payment). There are various online payment methods that consumers can use when paying for merchandise online, however, it should be noted that some retailers have different payment methods that they allow their customers to use.

2.3.2 Online payment methods

In retailing, various online retailers have different payment options that consumers can use to pay for merchandise. Fig 2.5 highlights these methods.

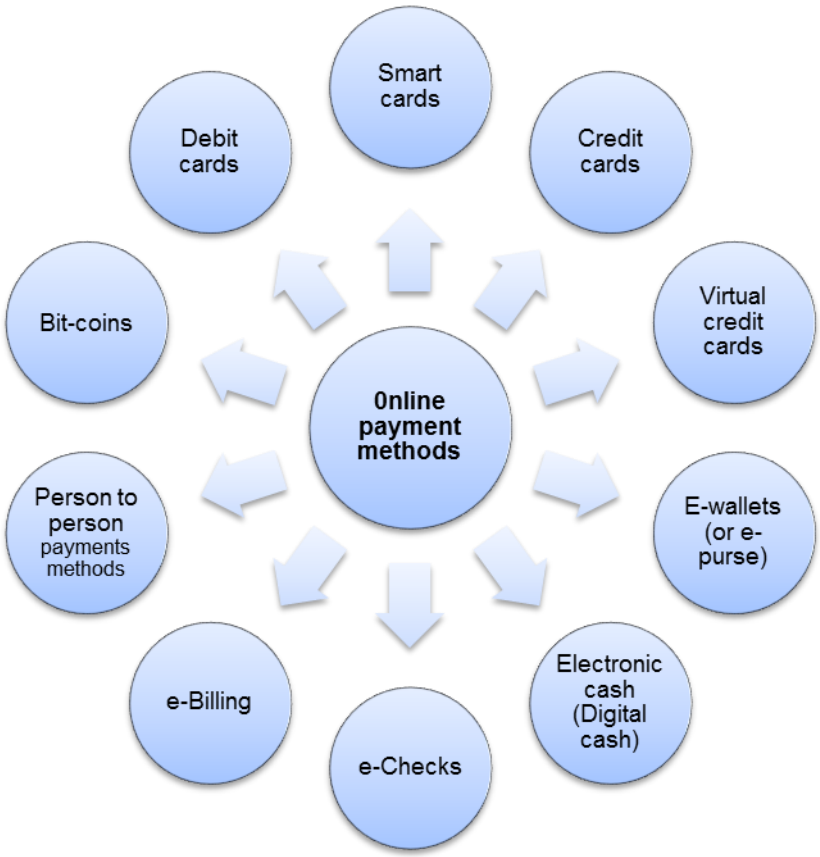


Figure 2.5: Online payment methods

Source: (Lawrence et al. 2003:106-123, Koponen, 2006:28 & Acosta, 2008:6-7)

The following is a discussion of payment methods highlighted in Figure 2.5 above:

a) **Credit cards:** This is a widely used online payment method (Acosta, 2008:4), although the fear to divulge confidential credit card information on the Internet has been the barrier to use Internet methods to purchase online. Lawrence et al. (2003:109) explain that consumers give consent to the bank to transfer funds from their personal accounts to a business account, by inputting their credit card details on the online payment request. Consumers should ensure that the source which they would want to make a payment to can be trusted so that their personal information is not abused.

b) **Virtual credit cards:** This virtual credit card has a unique number that consumers can use to purchase online in place of the regular credit card. This facility allows consumers to purchase online without disclosing the credit card number, such as private payments used by American Express (Acosta, 2008:5). Unlike credit cards, virtual credit cards have a single unique number that can only be used for a singular transaction and another

unique number is generated for a different transaction. This is probably done to ensure that when the card is lost it cannot be re-used.

c) **Debit cards:** The money for payment of items purchased comes from the purchaser's transactional account. The transfer normally takes few days (1 to 5 business days).

d) **Smart cards:** This card has a microchip and looks like any other plastic payment card. It can hold more information than most cards, and can contain health care, transportation, identification and banking information for payments to be processed over the Internet. A *card reader* reads the card details.

e) **e-Cheque** is a form of an electronic version of a paper cheque. This payment method works the same as a paper cheque but is faster and more secure.

f) **Digital cash:** This form of payment allows consumers/customers who do not have credit cards to purchase online. Consumers first deposit money into their digital cash account which awaits online payment transactions.

g) **E-wallet** is a piece of software that consumers can download onto their electronic devices (laptops, desktops, smartphones), and can store their credit card details Each time the consumer wants to make a payment online, this is done instantaneously by one click (Acosta, 2008:5). Lawrence et al. (2003:113) posits that e-wallet software automatically fills in the order form.

h) **Person to person payments/peer-to-peer payments (P2P)** is a form of online payment that is growing in popularity, which facilitates the transfer of funds between two individuals. A user (consumer) must create an account with a username, password and e-mail address. The consumer also must add their bank account or payment card details. PayPal is one of the first companies to introduce this service. Both consumers should have an account with PayPal for the transaction to be completed.

i) **e-Billing** is also known as electronic bill presentment and payment (EBPP). This payment method enables presentment, payment and posting of bills via the Internet. Presentment means a representation of information that is typically printed on the bill. This information is presented to the consumer in the form of a web server, and once the consumer has verified the information, he/she can proceed with payment. This facility is expected to grow in the future.

j) **Bitcoins** are a version of electronic cash invented by an unknown person or persons who go by the nickname, Satoshi Nakamoto, in 2008. Bitcoins allows peer-to-peer online transactions without the need for intermediaries such as financial institutions. The electronic payment system relies on cryptographic proof instead of trust of a third party, which allows two parties to transact easily (Nakamoto, 2008).

2.4 Online grocery shopping (OGS)

Online grocery shopping (also known as Internet grocery shopping; e-grocery shopping or electronic grocery shopping) is referred to as the consumer purchase of grocery merchandise from online grocery retailers (Verhoef & Langerak, 2001:275; Raijas, 2002:107; Al-nawayseh et al., 2013:41). Raijas (2002:107) postulated that electronic grocery retailers allow consumers to order groceries and pay on- or offline, and the retailer ensures that the right merchandise is delivered in good quality at the right time. When consumers purchase groceries from an online retail store, such as Tesco in the UK or the Pick n Pay Online channel in SA, or from any other online grocery store, it is considered OGS. According to Raijas (2002:112), online grocery retailers' offer more benefits to both consumers and retailers as compared to other retail channels such as brick and mortar or catalogue. Additionally, Al-nawayseh et al. (2013:41) support that online grocery retailing helps retailers to reduce costs and increase revenues, however, consumers are still sceptical to fully rely on OGS as a shopping method.

Grocery products are an essential component of everyday consumer living (Delaney-Klinger et al., 2003:187). Raijas (2002:111) consider grocery shopping to be a habitual, automatic and unthinking activity because consumers do it often. The author further highlighted that consumers visit retails stores four times a week. Similarly, a Finland study discovered that consumers visit shops on average of 4.3 times a week, spending 48 minutes per visit, while on weekends they spend 58 minutes. About 57% of this time is spent in traffic while 43% is spent in-store (Yrjola, 2001:746). Additionally, Tanskanen et al. (2002:170) postulated that consumers spend approximately 200 hours per year on grocery shopping. Studies show that this is stressful and boring to consumers (Tanskanen et al., 2002:170; Huang & Oppewal, 2006:334; Goethals et al., 2012:135). Furthermore, Huang and Oppewal postulate that grocery shopping is among the house chores that consumers dislike. Especially for elderly and disabled people, grocery shopping is a burden (Heikkila, Kallio, Saarinen & Kristiina Tuunainen, 1999:390). However, with these concerns, consumers can conveniently order groceries online and the grocery retailer delivers the products at the comfort their homes.

Although consumers now realise the benefits of OGS such as saving them time and money, broader product selection, greater access to information and competitive pricing (Tanskanen et al., 2002:170; Lim et al., 2004:68; Lin, 2007:433), surprisingly, the adoption of OGS has been slower than anticipated (Raijas, 2002:107; Kurnia & Chien, 2003:219; Huang & Oppewal, 2006:334; Murphy, 2007:942; Al-nawayseh et al., 2013:41). Consumers are still hesitant to purchase groceries online (Lin, 2007:433; Al-nawayseh et al., 2013:41). Retailer still encounter challenges of moving web-browsers to shoppers, especially in Malaysia as highlighted by Salehi (2012:393). Researchers have not yet fully understood why consumers adopt or do not adopt online shopping platforms (Keisidou et al., 2011:32). In addition, Kacen et al. (2013:19) aver that most online shoppers have experience with buying non-grocery merchandise online and it is likely that they will buy groceries online in the future. Previous research highlighted that many studies about OGS have mainly been done in Europe (Morganosky & Cude, 2000:19; Kurnia & Chien, 2003:220; Rahman et al., 2013:9; Goethals et al., 2013:134), and there have been few or limited studies that have an Afro-centric view of online grocery shoppers.

The first online grocery store emerged in the US in the late 1980s (Morganosky & Cude, 2000:18; Tanskanen et al., 2002:169; Kurnia & Chien, 2003:219; Al-nawayseh et al., 2013:42). The major online grocery retailers first appeared in the US these include Peapod, Streamline, Webvan and Netgrocer (Al-nawayseh et al., 2013:42). Thus far, there has been a considerable increase in the number of online grocery markets across the globe (Murphy, 2007:941; Datamonitor, 2010:29). Additionally, the UK has the highest per capita spending in the online grocery market globally. The individual British consumer spends more than any other country, while the US is on top in terms of the overall online grocery market value (Datamonitor, 2010:10-11). In France, online grocery shopping websites were the fifth largest e-commerce field, with approximately two million Internet users visiting online grocery stores (Goethals et al., 2012:135). In SA, OGS is still yet to break from a niche market to mass market (MacClathey et al., 2007:124; Datamonitor, 2010:1; Bra, 2013), although SA has a developed and competitive retail landscape (Thomas White International, 2011:9).

Thus far, the growth prospects for OGS across the globe are high. Hansen (2008:128) postulated that although non-grocery merchandise sales are rising on the Internet, online grocery merchandise purchases will continue to expand in the future. Gan et al. (2007:474) postulate that OGS adoption will increase because of the benefits it offers to consumers. The authors further attribute the growth to the increase in working women, increase in dual income consumers, higher households and an increase in the number of single parents. On the other hand, Huang and Oppewal (2006:334) posit that consumers will embrace OGS because of time

constraints and increase in Internet penetration. Goethals et al. (2012:133) posited that current OGS trends show that online grocery sales are increasing at a remarkable rate. A study done by MasterCard between November 2013 and January 2014 discovered that consumers purchased grocery products more than any other product online (Writer, 2014a). Quantity per buy for OGS is higher than non-food items. This could be the reason why groceries are growing prominence quickly in the SA online market.

The growth of online grocery retailing is being limited by various factors. Firstly, the nature of grocery products differs from other products sold online and they are time sensitive (Keh & Shieh, 2001:74; Raijas, 2002:107; Kempiak & Fox, 2002). Consumers are concerned with the quality, that is, freshness when their groceries are delivered. Secondly, when consumers purchase online, they cannot satisfy their sensory stimuli of feel, touch and smell (Hansen, 2008:128). Clemes et al. (2014:367) assert that online grocery retailers' failure to guarantee quality on merchandise deters consumers from adopting OGS channels. Thirdly, delivery charges have also been considered as a barrier to consumer intention to adopt online shopping. Online grocery retailers charge a fee to deliver merchandise, which most consumers are not willing to pay extra charge (Huang & Oppewal, 2006:335). Fourthly, consumers have concerns over their privacy and security when purchasing online. Consumers fear to lose their personal information or intruders having access to their private details (Huang & Oppewal, 2006:335). Fifthly, shopping online requires computer and Internet literacy, that is, the ability to navigate the shopping websites. Some consumers consider shopping websites to be sophisticated in comparison to traditional shopping (Goethals et al., 2012:135). Salehi (2012:394) posits that the success of online shopping (such as OGS) is achieved after a thorough understanding of an online shopper's behaviour. Online shopping platforms are distinct from the usual traditional shopping channels; therefore, retailers should invest money in understanding how this market operates.

Previously, products such as books, CDs and personal computers were commonly bought online (Tiernan, 2000:8). De Kervenoael et al. (2014:155) and Hansen (2008:128) agree that non-food items were the top selling merchandise online. However, introducing a new commodity such as grocery merchandise requires more investment and know-how. Also, Cho (2011:1245) mentions that grocery products have less online consumer acceptance than non-food items. Consumers prefer to buy books and toothpaste online rather than food products (Kacen et al., 2013:19). Grocery merchandise is considered a difficult commodity to sell online (Raijas, 2002:107; Al-nawayseh et al., 2013:41). Raijas (2002) attributes the difficulty to sell groceries online to the quantity per buy, perishability and low value-to-weight ratio. Al-nawayseh et al. (2013) also

concur with Raijas but add that online grocery retailing delivery systems with short lead times are difficult to craft. Crafting time-efficient logistical models is vital for the success of online grocery retailing (Heikkila et al., 1999:400; Raijas, 2002:107; Al-nawayseh et al., 2013:41), as grocery products require special logistical and transportation systems (Sharma et al., 2014). Introducing a new logistics structure for delivering merchandise to consumers requires retailers to identify new cost structures and a significant amount of money should be invested (Tanskanen et al., 2002:170). In concurrence with Murphy (2007), Goethals et al. (2012:135) posit that online grocery retailers will continue to encounter challenges in their pursuit of success in e-commerce transactions.

Among the online retailers that failed during the dot-com bubble burst of 2000 to 2003 were online grocery retailers such as Webvan, Streamline, Homegrocer and Shoplink. These online retailers emerged during the dot-com boom of 1997 to 2000 (Kempiak & Fox, 2002; Delaney-Klinger et al., 2004:188; Boyer & Hutt, 2005:643; Schneider, 2013:5). Tanskanen et al. (2002:169) postulate that these e-grocers invested millions of dollars in building e-grocer infrastructures, but they failed to break-even leading to ceasing operations. Delaney-Klinger et al. (2004:187-188) posited that these online grocery retailers promised consumers low prices and convenience which they were not capacitated to deliver. The authors further clarify that their marketing strategies did not match their operational levels. However, after the dot-com failure there were many e-commerce entrepreneurs who started successful online grocery retail outlets such as Tesco in the UK and AmazonFresh of the USA among others (Delaney-Klinger et al., 2004:187). There has also been a growing research interest that arises from the dot-com bubble boom and eventual burst which aims to find ways of building sustainable online business ventures (Al-nawaseh et al., 2013:42).

Table 2.1 below provides an overview of online grocery retailers in the developed countries. As evidenced in the table, setting up an online grocery store requires a huge capital investment, for example, the largest investment of US$150 million was made by Peapod in the US. This capital is mostly used to build distribution centres or warehouses to store grocery products and these structures require special conditioning to protect grocery merchandise from decaying. Some money is used to buy vehicles that would transport merchandise to consumers. Also, there is a need for computer systems that can synchronise the whole online grocery retailing system and maintenance. Additionally, recruitment of skilled personnel to handle all online grocery retailing operations is necessary. This could be why such huge initial investments were needed, especially when the prospects of return on investment are high. Unfortunately, for many online

grocery retailers, Webvan and Streamline included, could not sustain their operations, leading to the closure of operations (Al-nawayseh et al., 2013).

The various models that online grocery retailers use for delivery are discussed lengthily in section 2.5. These models are essential for the success of electronic grocery retailing.

Table 2.1: Grocery retailers in the developed countries

	Tesco (UK)	**Sainsbury's (UK)**	**Webvan (US)**	**Streamline (US)**	**Peapod (US)**	**Carrefour (France)**
Background	Largest supermarket chain in the UK	Second largest supermarket chain in the UK	Emerged as a pure-play grocery store (an online store only retailer) in 1999	Started as a pure-play grocery retailer in 1992	Before the Internet emerged, Peapod had already started home delivery as early as 1989.	The biggest hypermarket in the world in terms of size
Online grocery retailing start-up capital/ investment (– US$ million approximately)	US$58	US$40	US$120	US$80	US$150	US$100
Main mode of operation	In-store picking	In-store or warehouse picking	Warehouse picking	Warehouse picking	In-store and warehouse picking	In-store picking
Current status	Currently, the biggest online grocery retailer in the world, with operations expanding outside the UK.	The retailer has 53 stores serving 73% of UK grocery market.	Operations stopped in July 2001	Sold some of its operations to Peapod in September 2000 and the rest of operation stopped in November 2000.	Bought by Royal Ahold, the second largest e-grocer in the world.	Last known plans were to disperse its operations and rebrand its stores.

Source: Al-nawayseh et al. (2013:43)

To further provide a preview of online grocery retailing, Table 2.2 details a sample of online grocery stores in SA that were in operation at the time of the study. As mentioned before, Pick n Pay and Woolworths are the major online grocery retailers in SA, while Expat Shop, Gourmet Food Shop and Saffa Trading are pure play stores (retailers that operate purely online and do not have a physical store). The table below also gives an overview of the delivery model that the retailer is using, the delivery cost and methods of payment method that the retailer uses.

Table 2.2 Online grocery retailers in SA

Name of the store		E-grocer model	Delivery time & cost	Methods of payment
1	**Woolworths** (www.woolworths.co.za)	• Home delivery • Collect from local store	• Delivery cost is between R50 and R95 • 48 hours delivery time from order	• Woolworths store card • EFT (Electronic Funds Transfer) • Direct deposit • In-store Debit Order
2	**Pick n Pay** (www.pnp.co.za)	• Home delivery (third party) • Collect from local stores	• Delivery fee from R50 (Mr Delivery) • One hour window period (delivery up to 8pm)	• Visa • MasterCard • American Express • Diners Club credit card • Smart Shopper (Loyalty card)
3	**Expat Shop** (www.expatshop.co.za)	• Home delivery	• R55 delivery fee • Delivery time 10 to 15 working days	• Amex • Visa • PayPal • MasterCard • Divers Club Card • Internet transfer
4	**Gourmet Food Shop** (www.gourmetfoodshop.co.za)	• Home delivery • Collect from warehouse e.g. in Randburg, Johannesburg	• Free delivery within Johannesburg for orders over R1 000. • R100 delivery charge places outside Johannesburg • Delivery time: 3-4 days from order	• PayFast • EFT – Direct Bank transfer • Credit card
5	**Saffa Trading** (www.saffatrading.co.za)	• Home delivery • Home delivery through the third party (DHL, Post Office Airmail, Expedited Mail Services)	• 2 working days • Shipping cost is determined by the volumetric weight of the products the consumer has purchased and the shipping method chosen	• EcoPay • Mastercard • Visa • PayPal

The profile of online grocery retailers in SA in Table 2.2 shows that most of these grocery stores have home deliveries while some have options for consumers to collect merchandise at a local store. Third party delivery is used by Pick n Pay and Saffa Trading. This enables the retailer to focus on the main operations while the outsourced delivery company ensures that the merchandise is delivered to consumers. These retailers also charge delivery fees and these depend on the distance from where the consumer is located from the store. The literature reviewed shows that delivery fees can be a barrier to consumer use of OGS. The table also highlights the various e-payment methods that consumers can use to pay for grocery merchandise online and as shown, these vary from one retailer to another.

The varying descriptions of online retailers have been given above; the following discussion describes what an online grocery shopper's characteristics are according to literature surveyed.

2.4.1 Typical online grocery shopper

Clemes et al. (2014:365) assert that demographic characteristics of consumers are essential in distinguishing adopters from non-adopters of online shopping. Online shopper characteristics differ from one country or region to another. A study that was done by Gong, Stump and Maddox (2013:224) in China depicted that age, education, income and marital status are significant predictors of consumer online purchase intention. Consumer demographic characteristics also play a role in distinguishing between online shoppers and non-shoppers. For example, Geuens et al. (2002:242) postulated that buying behaviours between the poor and the rich differ. The same can be said for educational levels, age groups and marital status, among others. Murphy (2007:950) further asserts that the success of online grocery retailing is achieved by targeting potential markets, which could be defined by demographic attributes. On the contrary, Keh and Shieh (2001:76) are of the view that OGS is not confined to any market segment which is defined by income levels, education levels or age groups. Reviewing the literature, the following has been discovered about demographic attributes of online shoppers.

i. **Age** – it seems that all age groups are targeted by online grocery retailers, although Lian and Yen (2014:137) point out that online attitudes and behaviours differ among age groups. The elderly are potential online shoppers due to their physical impediments, however, the elderly are not able-bodied to shop groceries as often, compared to other age groups (Morganosky & Cude, 2000:18; Raijas, 2002:108; Kempiak & Fox, 2002; Murphy, 2007:950; Goethals et al., 2012:134). In agreement, Keh and Shieh (2001:76) further posit that online grocery retailers target elderly consumers because of their disability which is linked to their age, so online grocery

retailers add value to them by delivering grocery merchandise. Furthermore, Lian and Yen, (2014:133, 137) mentioned that although young consumers have been the most active group online, and studies have focused on this category, older adults are increasingly learning the art of shopping online. The authors further suggest that studies should also focus on older consumers and design online shopping websites with older adults in mind. Kempiak and Fox, (2002) also pointed out that consumers aged 25 to 34 are the predominant online grocery shoppers. The authors further add that this age group consists of young professionals who are time-starved and are looking for opportunities to save time. Similarly, a Malaysian study discovered that most Internet users are young people (Salehi, 2012:395). This affirms that predominant Internet users often shop online, but elderly consumers' ability to effectively use the Internet is questioned.

ii. **Income** – The increase in dual income and higher income households has also influenced the demand for OGS (Tanskanen et al., 2002:171; Verhoef & Langerak, 2001:275; Raijas, 2002:108; Morganosky & Cude, 2000:18; Gan et al., 2007:474). These wealthy families with time-intensive jobs are easily inclined to shop groceries online (Kempiak & Fox, 2002; Murphy, 2007:950). In SA a study done by McClatchey et al. (2007:124) pointed out that OGS is still a niche market in Cape Town. Only the high-income earners have patronised this convenient grocery shopping channel. However, there are prospects for OGS growth into other consumer segments.

iii. **Marital status** – the most predominant current family structures are single-headed families that are also time impoverished. These families have been the most targeted group of online grocery retailers (Kempiak & Fox, 2002; Verhoef & Langerah, 2001:275; Morganosky & Cude, 2000:18; Gan et al., 2007:474). Murphy, (2007:950) pointed out that mothers with young children are more easily driven to shop groceries online as they try to avoid crowded supermarkets.

iv. **Education** – Roy Dholakia and Uusitalo (2002:462) assert that online shopping adoption is more likely to be influenced by education, assuming that early adopters of new innovations are mostly educated people. Zhou et al. (2007:43) are neutral, pointing out that there are mixed findings on the level of education of consumers who shop for merchandise online. However, Gong et al. (2013:219) agree with Roy Dholakia and Uusitalo (2002) that higher educated people tend to be more technology savvy, and an assumption can be made that they might be more inclined to shop groceries online.

v. **Gender**– According to Goethals et al. (2012:134), gender plays a significant role in e-grocery adoption. Lian and Yen (2014:137) concur that males are more likely to buy online than females. However, opposing views suggest that the increasing number of working women has necessitated the need for OGS (Morganosky & Cude, 2000:18; Gan et al., 2007:474). The researchers pointed out that mostly women are the primary food shoppers and new millennium trends show that women have taken up higher demanding work occupations. Clemes et al. (2014:368) are of the view that women are increasingly shopping online than males. On the contrary Zhou et al. (2007:42) assert that men shop online more than women, but they all hold equal chances of shopping at the same rate in the future. Gong et al. (2013:218) concur with Zhou et al. (2007) when the authors highlighted that women are more risk-averse when it comes to shopping online than men. This causes women to browse online and complete their purchases offline. However, there is limited evidence that indicates the activities of both men and women on shopping groceries online, except the fact that women are the primary food shoppers traditionally.

2.4.2 Advantages and Disadvantages of OGS

From the literature survey done by the researcher, the following advantages and disadvantages were identified:

Table 2.3 Advantages and disadvantages of OGS

Advantages of online grocery shopping (OGS)		
1	Convenience	Morganosky & Cude, 2000:24; Kurnia & Chien, 2003:219; Walters, Toase, Hong & Meekel, 2005:238; Keh & Shieh, 2001:76; Murphy, 2007:951; Lin, 2007:433; Gan et al., 2007:474; Datamonitor, 2010:7; Verhoef & Langerak, 2001:276; Hubpages, 2014
2	Time saving	Morganosky & Cude, 2000:24; Verhoef & Langerak, 2001:276; Keh & Shieh, 2001:76; Raijas, 2002:110; Kurnia & Chien, 2003:219; Walters et al., 2005:238; Murphy, 2007:951; Lin, 2007:433;
3	Greater product choice	Walters et al., 2005:238; Murphy, 2007:941; Lin, 2007:433; Gan et al., 2007:474; Datamonitor, 2010:1
4	Avoid crowds, queues and parking hustles	Morganosky & Cude, 2000:25; Keh & Shieh, 2001:76; Raijas, 2002:110; Hubpages, 2014
5	Cost saving	Murphy, 2007:951; Lin, 2007:433; Gan et al., 2007:474; Datamonitor, 2010:6
6	less impulse purchases	Murphy, 2007:951; Datamonitor, 2010:242
7	Access to more product information	Lin, 2007:433; Datamonitor, 2010:6

8	Multimedia web browsing	Datamonitor, 2010:6
9	Cheaper price	Walters et al., 2005:238
10	Lack of sales pressure	Walters et al., 2005:238
Disadvantages online grocery shopping (OGS)		
1	Time sensitive products (which might affect product qualify)	Keh & Shieh, 2001:74; Kempiak & Fox, 2002
2	Product intangibility when purchasing online	Morganosky & Cude, 2000; Verhoef & Langerak, 2001:276; Kempiak & Fox, 2002; Raijas, 2002:111; Lin, 2007:433 Datamonitor, 2010:7;
3	Lack of interaction with retail personnel	Li, 2007:433
4	Lack of trust due to security issues	Morganosky & Cude, 2000:19; Kempiak & Fox, 2002; Walters et al., 2005:238; Lin, 2007:474; Zaini et al., 2011:61; Keisidou et al., 2011:32; Datamonitor, 2010:7
5	Delivery costs	Walters et al., 2005:243; Lin, 2007:474; Datamonitor, 2010:7; Zaini et al., 2011:61; Hubpages, 2014
6	Lack of reliable information on websites	Walters et al., 2005:243; Lin, 2007:474
7	Difficulties in finding products	Raijas, 2002:111
8	Inflexible delivery times	Kempiak & Fox, 2002; Walters et al., 2005:238; Datamonitor, 2010:7;
9	Poor social aspect/interaction	Verhoef & Langerak, 2001:276; Geuens et al., 2002:242; Datamonitor, 2010:242; Hubpages, 2014
10	Poor product substitution	Datamonitor, 2010:7
11	No instant gratification	Geuens et al., 2002:242; .Datamonitor, 2010:242;
12	Limited variety and selection	Kempiak & Fox, 2002
13	Cost of Internet access	Walters et al., 2005:238.

Source: Researcher's construct from literature survey

Table 2.3 is a tabulation of advantages and disadvantages of OGS. The advantages of OGS are those that lure more consumers to buy groceries online while disadvantages are those that are a barrier to consumers' intention to buy online. However, well-designed marketing strategies can amplify the advantages of OGS while downplaying the disadvantages of shopping groceries online. Goethals et al. (2012:135) highlighted that convenience and time-saving are the major advantages of OGS. Kacen et al. (2013:12) postulated that although convenience has been significantly noted in several studies as a reason why consumers are

drawn to shop online, the authors consider convenience, but not as the sole reason, as there are costs and other deterring factors for consumers to patronise the online shopping such as shipping cost or delayed consumption due to delayed delivery. On the other hand, privacy and security were the most prominent disadvantages of shopping online (Kempiak & Fox, 2002), however, the literature surveyed shows that there are several other disadvantages of buying online.

2.5 Online grocery retail business models

The success of online grocery retailers is determined by how well the retailer designs its business model (Goethals et al., 2012:133; Al-nawayseh et al., 2013:43). The model should be accepted by the targeted market and the retailer should be able to sustain a chosen logistical model. When e-grocers were introduced most logistical strategies that were used by e-grocers were a trial and error, they resultantly led to the demise of many online grocery stores around 2000 to 2003 (Punakivi & Saranen, 2001:156). Furthermore, Gan et al. (2007:474) posit that ordering and delivering processes are a challenge for e-grocers. Furthermore, Geuens et al. (2002:247) add that order fulfilment is also of great concern to consumers. The increased importance of delivering to consumers has been stirred by the growth of OGS in both developed and developing nations (Al-nawayseh et al., 2013:61).

Goethals et al. (2012:133) assert that home delivery is growing in popularity among consumers and this trend is expected to continue in the future. There are two types of home delivery; attended and unattended (Goethals et al., 2012:133; Al-nawayseh et al., 2013:44). Goethals et al. further highlight that for the attended delivery model the customer should be at home at the time of delivery, while with the unattended delivery model merchandise is left in a secure box. Al-nawayseh et al. (2013:44) also noted that attended delivery can be done at locations that the consumer has chosen which could be at home or work or anywhere else. However, the retailer should ensure that they deliver at the correct address and the correct window period. Goethals et al. aver that among these two delivery options the unattended delivery model is increasing at a faster rate than attended delivery model.

According to Murphy (2007:942), there are three e-grocery business models, which is the bricks and clicks, pure play and the infomediary. The author highlighted that bricks and clicks is a retail store with an online shopping channel as well as the physical store, while pure play stores do not have a physical store but have a warehouse where assembling of merchandise is done for order fulfilment, and the infomediaries are third party logistics companies whose sole purpose is to mediate sale between the retailer and the consumer. In contrast, other researchers conclude that there are four e-grocer models as shown in Figure 2.6 below.

Figure 2.6 below is a pictorial structure that depicts the various models that can be adopted by any retailer that intends to introduce an online grocery retailing channel.

Figure 2.6: Online grocery retailers' business models

Source: Hoojisma (2014)

Below is a discussion of these various e-grocer business models:

- **Store to home** – this is an online grocery business model that allows consumers to purchase merchandise over the Internet and the merchandise is delivered by the retailer at the consumer's place of residence (Hoojisma, 2014). For example, Safeway grocery retailer uses this model. The store offers one-day delivery with a one hour window period and deliveries are from 8.30am (Hoojisma, 2014). This model is for an existing brick and mortar grocery store. Wyman (2014:12) posits that this concept also applies to pure play retailers (retailers that do not have a physical store such as AmazonFresh). The store uses its own vans to deliver merchandise to consumers.

  Murphy (2007:942) highlighted that store pickers use computerised order scanners which direct them to merchandise they would want to collect. Tesco uses this model and they enable pickers to pick multiple orders at the same time. The company has used the same model in its subsidiaries in South Korea and Ireland, and in its joint venture in the USA with Safeway. Other examples include ASDA and Sainsbury (UK), Albertsons and Safeway (USA), Royal Ahold (Netherlands), Carrefour (France), Woolworths (Australia), and Woolworths and Foodtown (New Zealand). Punakivi and Saranen (2001:157) clarified that there is a manned and unmanned reception. Murphy (2007:945) suggested that the various e-commerce major hurdles are logistical difficulties. Consumers have a choice of having groceries delivered when they are there (attended) or when they are not there (unattended) (Goethals et al., 2012:133).

- **Click and collect** – this is another business model that is currently being used by Walmart. This model is available for existing businesses. This model enables consumers to order their groceries online and pay online, and they can collect the

groceries at their nearest preferred store (Hoojisma, 2014; Wyman, 2014:12). Citing Moskowitz (2014), Hoojisma (2014) highlighted that this model allows consumers to add extra merchandise that they would have forgotten when they were ordering online. It also allows consumers to change certain merchandise that they do not want, due to expiry dates or freshness perceptions. Wyman (2014:12) further points out that collection points might not be attached to the store, as it could be close to airports in refrigerated lockers in the UK. Auchan is an example of a brick and mortar store that uses this model in France and the UK.

- **Pure play delivery** – this model is available for businesses that operate purely online. AmazonFresh is an example of a pure-play store where customers order groceries online and the groceries are home-delivered by the retailer (Hoojisma, 2014). Some of the early pure play stores were unsuccessful, such as Webvan.

- **Drive through or third party collaboration** – this model is also available for pure play stores that have a warehouse or that are in collaboration with third party contractors. Customers do online grocery shopping and they pick their grocery merchandise from a warehouse or from a third-party company or contractor (Hoojisma, 2014). Giant Food collaborates with gas stations, with consumers buying groceries online and then collecting them at petrol stations. Wyman (2014:12) highlights that third parties could be traditional logistics companies that offer grocery delivery services or could be contracted individuals. Instacart or Morrisons are examples of third party delivery service providers. Wyman (2014:12) separates this model into two parts.

  a) Picking in-store by the third party, which is when a third-party contractor picks merchandise directly from the store and delivers it to the customers. Instacart offers these services.

  b) Picking from a warehouse or the so-called “dark stores”, which entails consumers picking up their grocery merchandise from purpose built warehouses. Dark stores have shelves which allow replacement. FreshDirect is an example of an online-only retailer. Tesco (UK) delivers its merchandise using dark stores. Tesco used a warehouse model where pickers collected merchandise from a central warehouse, and the retailer also utilised the pick-and-pack model where pickers collect merchandise from local stores and delivered them to consumers. Mainly fresh foods were collected from local stores while non-perishable merchandise was collected from the warehouse (Huang & Oppewal, 2006:336).

Although there are many models that can be adopted by any retailer that would enhance online grocery retailing, there are various fundamental challenges to these models, which MWPVL International (2014) highlighted below:

- It is costly and difficult to design an online grocery retailing model that saves consumers time.
- Consumers are still sceptical to buy groceries online that they cannot physically see, feel and touch. Most consumers still hold negative perceptions towards OGS.
- Difficulties in maintaining delivery window period (time indicated by consumers to receiving deliveries).
- Matching online product prices with the brick and mortar store merchandise prices.
- The cost of delivery without incurring substantial costs.

To deal with above-mentioned challenges retailers resort to the thorough prior research of the target market, and choose the best cost-effective e-grocer model for the specific target market. As highlighted in Appendix B, the selling price of online products for Woolworths Food are more than that of their physical store channel, while for Pick n Pay, the prices vary with products, and some are cheaper online while other products are cheaper offline. However, for online channels to succeed their prices should not exceed the just noticeable difference and a thorough understanding of the targeted market is essential. .

2.6 Theoretical framework for consumer technology adoption

As alluded to before, there has been a rise in the number of businesses that are launching online shopping platforms; this is attributed to the growth and use of the Internet by businesses and consumers across the globe (Lawrence et al., 2009:55; Datamonitor, 2010:6; Schneider, 2013:13). However, research shows that consumer technology adoption varies from country to country (Kurnia & Chien, 2003; Awa et al., 2015:573). It is now understood that consumers' willingness to adopt or not adopt a technology is driven by several factors. There are several models and theories that underpin the understanding of online shopping adoption. These include Theory of Reason Action (TRA) (Fishbein & Ajzen, 1975); Theory of Planned Behaviour (TPB) (Lin, 2007); Unified Theory of Acceptance and Use of Technology (UTAUT) (Ventakesh, Morris, Davis, & Davis, 2003); and Technology Acceptance Model (TAM) (Davis, 1986).

TRA is a significant model for studying attitude and behaviour. Consumer decision-making empirical studies have endorsed TRA a significant model that can predict consumers' behavioural intentions (Taylor & Tod, 1995:137). TRA provides adequate analysis only when individuals have control of their behaviours; however, TPB extends to explain when individuals do not have control over their behaviours (Lin, 2007:434). TPB suggests that

subjective norm, attitude towards the behaviour and perceived behavioural control have an influence on intention (George, 2004:199). TAM was also conceived from TRA and this model has two key behavioural intention and usage of technology determinants which are perceived usefulness (PU) and perceived ease of use (PEOU) (Lin, 2007:434). The model suggests that behavioural intention to use technology leads to actual usage of the technology.

The Unified Theory of Acceptance and Use of Technology (UTAUT) is another model that is designed to determine the acceptance and use of technology. This model is an amalgamation of various theories (Venkatesh et al., 2003). Although UTAUT seems to be a viable model to understand online shopping adoption, the model has not been widely used over the years as compared to the TAM. To enable comparability and uniformity, this study uses a limited version of TAM as the research framework.

2.7 Conceptual framework

The model for this study was derived from the TAM. OGS is a new shopping method that consumers can use to shop their groceries (Verhoef and Langerak, 2001:276-277). This service innovation is an advanced method of shopping which retail experts thought would replace the traditional shopping methods, although it is now understood that online retailing segment will not substitute traditional brick and mortar retailer but will be a complementary shopping channel (Levy et al., 2014).

TAM is considered to be a good framework for exploring the adoption of information technologies by its users (Chien & Kurnia, 2003:221; Wang et al., 2003:503; Rahman et al., 2013). This model has been widely used by various researchers to explain the adoption of new technologies (Rahman et al., 2013:10; Awa et al. 2015). Hernandez et al., (2008:1233) further assert that TAM has "… high exploratory power in technology behaviour and e-commerce perceptions …". The TAM was first designed to understand user behaviours of information technologies (Kurnia & Chien, 2003:221; Hernandez et al., 2009:1233), however, the model has been adapted by different researchers to understand e-commerce adoption by consumers (Wang et al., 2003; Kurnia & Chien, 2003:221; Hernandez et al., 2009:1233; Rahman et al., 2013:10; Awa et al., 2015:573).

The research model in Figure 2.7 was used with the aim of understanding which factors influence consumers' behavioural intention to adopt OGS. The model basically examines each factor (construct) against the behavioural intention to adopt OGS as the dependent variable. The independent factors that will have a significant influence on the dependent variable will be factors that influence consumers' behavioural intention to adopt OGS.

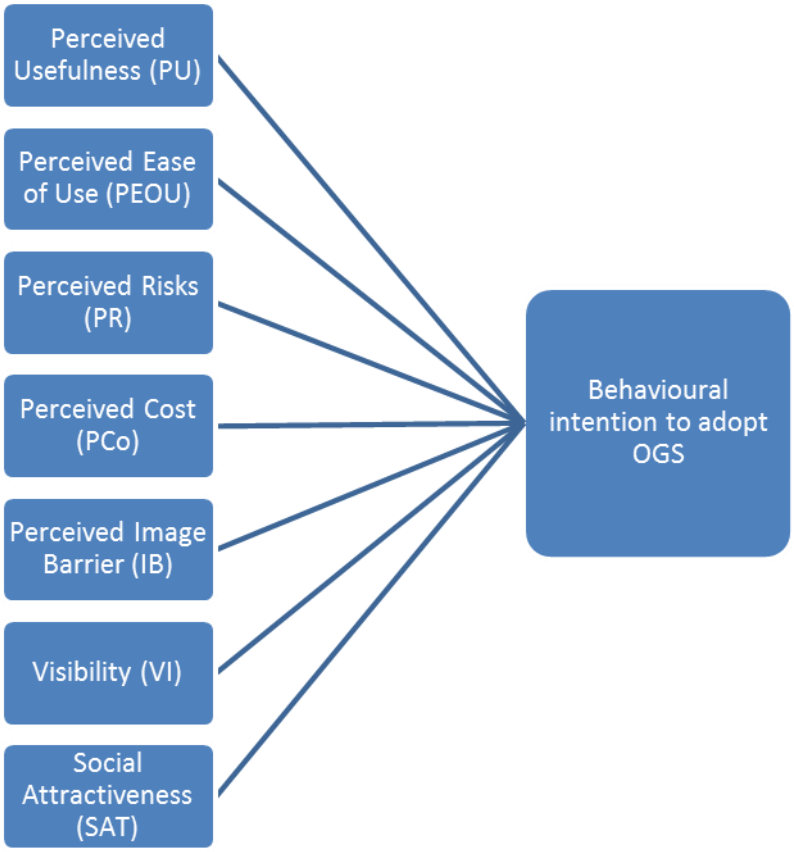


Figure 2.7: Conceptual framework

2.7.1 Operationalisation of the conceptual framework

PU, PEOU, PR, PCo, VIS, PIB and SAT are independent variables while behavioural intention to adopt OGS is the dependent variable.

- **Perceived Usefulness (PU)**

PU is considered a factor that determines adoption of new technologies (Davis, 1989; Wang et al., 2003; Awa et al., 2015:576). Vijayasarathy (2003:750) defines PU as the extent to which consumers believe that online shopping provides access to useful information, facilitate comparison and enable quicker shopping. PU is the ability of a technology to enhance consumers' buying processes (Davis, 1989). PU also relates to the extent to which using a system or innovation benefits the users. Users who are consumers are seeking benefits of using a service or innovation (Jeong & Yoon, 2013:34). Furthermore, Gong et al. (2013:220) assert that PU involves an increase in shopping productivity, that is, improved search and buying, time and money saved by shopping online and greater product choices available on the online store. Therefore, in this study, PU is about consumers' perceptions of the usefulness of purchasing groceries online.

- **Perceived ease of use (PEOU)**

PEOU is the extent to which consumers believe that online shopping is free of effort (Vijayasarathy, 2003:750). According to Lee and Chang (2011:175), PEOU is related to website design, as a poor user interface has an impact on the adoption of a technology. Lee and Cheng (2011:175) also mentioned that well-designed websites, effective search engines, easy and transparent navigation, and user-friendly interfaces play a vital role in online shopping adoption. Gong et al. (2013:220) also allude that PEOU includes the perceived ease of information search, ease of ordering (any time, any location) and overall ease of use.

In the context of this study, PEOU relates to the ease of purchasing groceries online. Online grocery shopping will be free of effort or effortless for consumers. An innovation/technology that is easy to use is easily accepted by the consumer (Jeong & Yoon, 2013:34).

- **Perceived risk (PR)**

According to Clemes et al. (2014:365) perceived risks have a significant influence on consumer online buying decisions. Schiffman and Kanuk (1997:183) defined perceived risk (PR) as “the uncertainty that consumers face when they cannot foresee the consequences of their purchase decisions”. Huang and Oppewal (2006:338) define risk as “consumer`s perceptions of the uncertainty and adverse consequences of buying a product or service”. Consumers are influenced by the risk that they perceive, whether such risk actually exists or not (Schiffman & Kanuk, 1997:183; Chung & Li, 2008:214). Javadi et al. (2012:83) mentioned that consumers consider various risks that they may encounter before they make a purchase. Gong et al. (2013:219) also assert that perceived risk plays a critical role in consumer decision-making especially on Internet activities which are impersonal in nature. If consumers perceive more risk with shopping groceries online, they will decide to shop at physical stores, and if the perceived risk is lower consumers will shop comfortably online (Javadi et al., 2012:83). Consumers perceive more risk when buying online than offline (Clemes et al., 2014:365). Even though the Consumer Protection Act protects and informs consumers of their rights (South Africa, 2009:10), users are risk averse when engaging in online transactions.

Some researchers posit that there are five perceived risk types which include financial risk, functional or performance risks, physical risk, psychological risk and social risk (Shiffman & Kanuk, 1997:183; Cheng et al., 2012:20). However, Huang and Oppewal (2006:338) posit that there are six dimensions of perceived risk rather than five. Javadi et al. (2012:83) also put forward that, financial risk, product risks and non-delivery risks, are risks that are associated with online shopping. PR negatively influences consumers in the adoption of OGS.

PR is a multidimensional construct (Gong et al., 2013); for this study, security and privacy are deemed as significant factors that deter consumers from shopping online (Levy et al., 2014:78). The researcher will consider the functional risks (the risk that the product will not perform as expected) (Schiffman & Kanuk, 2010:202). This is due to the product dimension. Huang and Oppewal (2006:339) assert that product performance risk is pertinent to Internet grocery shopping. The authors further highlighted that consumers prefer to examine the products first before making a purchase and grocery merchandise belongs to the touch/see/smell category. The grocery products differ from other products in that they are time sensitive which requires special care (Keh & Shieh, 2001:74).

Salehi (2012:396) posits that consumers' concerns over the uncertainty of their online shopping deter them from using that platform. Consumers want to satisfy their sensory taste before they purchase an item. The traditional store offers instant gratification of merchandise purchased whereas an online store has a disjointed purchase and delivery of merchandise which increases the risk perceived by consumers (Huang & Oppewal, 2006:339).

- **Perceived cost (PCo)**

Perceived cost (PCo) refers to consumers' beliefs on the cost of using a new technology (Pantano & Pietro, 2012:4). Consumer decisions are affected by the perceived cost of using a technology. The cost might either be high or low (Gao & Deng, 2012:377). Huang and Oppewal (2006:335) postulated that delivery charges can be a barrier to online grocery shopping. Agwu and Murray (2014) also cited that PCo can be associated with costs of using or accessing the Internet, that is, the cost of Internet-capable gadgets, such as computers, smartphones, the cost of using an Internet café and delivery charges. There has been a growing need among consumers to save money (Clemes et al., 2014:367), however, if online grocery shopping does not offer saving advantages, consumers will resort to old shopping methods or chose other better alternatives.

- **Visibility (VIS)**

VIS is "the degree to which an innovation is apparent to the adopters" (Kurina & Chien, 2003:222). Online grocery shopping is a relatively new shopping channel in most consumer markets (Morganosky & Cude, 2000). Generally, if consumers are not informed about an innovation, they will most likely not use or adopt it. It is, therefore, the task for online grocery retailers to inform and persuade consumers to purchase groceries online. Consumers have to see online grocery shopping being used by people in their communities, organisation and colleagues for them to adopt it (Kurnia & Chien, 2003:224).

- **Perceived Image Barrier (PIB)**

Perceived Image Barrier is a psychological barrier to technology use (Ram, 1987). If consumers perceived new technology to be difficult to use, they are most likely not motivated

to use it, and that can cause consumers to be reluctant to use the innovation for buying merchandise online (Lian & Yen, 2014). Two aspects of the PIB will be examined in this study, that is, consumer perception of online shopping services and their general impression of new technology.

- **Social attractiveness (SAT)**

There have been a vast number of shopping centres and malls built across the world; however, while some are built for economic reasons, others are tapping into changes in consumer lifestyle (El-Adly, 2007:936; Rajagopal, 2009:100; Ahmad, 2012:101). A shopping mall is referred to as a number of both products and services retail outlets operating under one roof (Banerjee, 2012:102). More consumers have been gravitating towards shopping in malls as these provide a "one-stop shop" environment (Rajagopal, 2009). Online grocery shopping does not offer consumers physical and social interaction with colleagues and friends (Hubpages, 2014; Verhoef & Langerak, 2001:276; Datamonitor, 2010:242).

In South Africa, the designs of shopping malls with their restaurant and coffee shop components offer sharing attractions as a social meeting place which may work against consumer online shopping intentions. This idea is supported by Geuens et al. (2002:241) who discovered that a consumer was more driven to shop groceries in superstores rather than on more conventional shopping avenues. The superstores, often related to a one-stop shop can be linked to consumers opting for shopping centres rather than online channels. Malls enhance consumers' ability to interact and associate, while online shopping is devoid of that aspect (Geuens et al., 2002:242; Verhoef & Langerak, 2001:276; Datamonitor, 2010:242; Hubpages, 2014;). The dimensions of SAT of shopping malls, which form part of this study, include entertainment, convenience, ambience and security (El-Adly, 2007; Ahmad, 2012).

2.8 Summary

Online grocery markets are still at an infancy stage in most developing countries including SA. Although OGS seems to be rising in the country, there is a need to understand the factors that trigger the growth. Previous studies suggest that online grocery shoppers are affluent families that are time impoverished. Some literature also seems to posit that online grocery shoppers are young adults that are educated. However, there is no clear understanding of online grocery shoppers in this Cape Metropolitan area.

This study adopted a limited version of the TAM to determine the factors that influence consumers' behavioural intention to adopt OGS. Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Perceived Risk (PR), Perceived Cost (PCo), Visibility (VIS), Perceived Image Barrier (PIB) and Social Attractiveness (SAT) were used as independent factors that determine consumers' behavioural intention to adopt OGS. The following chapter focuses on

methods and procedures that were used to conduct data collection and the section also describes how that data was analysed.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

The previous chapter was a critical review and analysis of existing literature. This chapter describes the processes and procedures that were employed to collect data. This research study was based on a positivist research paradigm and quantitative data collection methods were used. The target population, sample size and sampling techniques were also discussed in this chapter. This section concludes by detailing how data was captured and analysed.

3.2 Research design

Zikmund, Babin, Carr and Griffin (2013:64) defined research design as a "master plan that specifies the methods and procedures for collecting and analysing the needed information". Denscombe (2010:100), Bryman and Bell (2011:40) and Cooper and Schindler (2011:87) concur with Zikmund et al. (2013:64) that a research design is a framework or blueprint for the research. The research design is, therefore, a road map or backbone for any research study.

Many authors argue that there is no single best or standard research design for any specific research study (Blanche, Durrheim & Painter, 2006:161; Cooper & Schindler, 2011:140; Zikmund et al., 2013:64). Cooper & Schindler (2011:140) highlighted that researchers encounter the dilemma of choosing the best research design from several alternatives. Furthermore, the authors suggested that researchers need to have enough research skills that enable them to choose the best research design, and novice researchers should consult skilled researchers in their field of study. To ensure that the best research design was followed for this study, the researcher's supervisors and other researchers were consulted.

Furthermore, Blanche et al. (2006:161-162) postulated that a research design is determined after a careful analysis of external factors such as funding availability, accessibility of the targeted population and so forth. In an endeavour to highlight the research design followed in this study, the researcher made use of Table 3.1 below. In the options column, the elements highlighted in bold signify the path or roadmap of this study. Table 3.1 illustrates how Cooper and Schindler (2011:140) classified research designs:

Table 3.1: Components of a research design

Category	Options
The degree to which the research questions have been crystallised	• Exploratory study • **Formal study**
The method of data collection	• Monitoring • **Communication study**
The power of the researcher to produce effects in the variables under study	• Experimental • **Ex-post facto**

The purpose of the study	• Reporting
	• **Descriptive**
	• Casual
	  • Explanatory
	  • Predictive

The time dimension	• **Cross-sectional** • Longitudinal
The topical breadth and depth of the study	• Case • **Statistical study**
The research environment	• **Field setting** • Laboratory research • Simulation
The participants' perceptions of research activity	• **Actual routine** • Modified routine

Source: Cooper and Schindler (2011:140)

Below is an elaboration of the design used for this study, with the help of material in table 3.1:

The degree of research question crystallisation: This study is a formal study as opposed to exploratory studies because it answers specific research questions which are mainly closed-ended questions. Furthermore, Cooper and Schindler (2011:140) postulated that formal studies have research questions which have precise procedures. The questionnaire survey used in this study has questions with pre-determined answers.

The method of data collection: This study makes use of self-administered questionnaires and this is a communication study. According to Cooper and Schindler (2011:141) a communication study asks questions to participants and the researcher collects responses either by personal or impersonal methods.

Researcher control of variables: Cooper and Schindler (2011:141) assert that an ex-post facto design does not probe but allows respondents to answer questions usually in predetermined responses. The authors further state that the researcher observes and reports.

The purpose of the study: According to Cooper and Schindler (2011:141) if the study is concerned with finding out who, what, where, when, or how much, that study is regarded as descriptive. This study is mainly focused on surveying questions such as what are demographic profiles of adopters and non-adopters of online grocery shopping. What factors

influence consumer intention to adopt online grocery shopping as a grocery shopping method.

The time dimension: This study was a cross-sectional study, which entails that the study was done over a short period of time.

The topical scope: This research study made use of quantitative research methods and questionnaire surveys were used to gather data which makes this a statistical study. Statistical studies are more concerned with breadth rather than depth which this study will not probe for in-depth understanding (Cooper and Schindler, 2011).

The research environment: The research was carried out in a primary research area, which Cooper and Schindler (2011:142) termed field condition. The research was conducted at shopping malls in Cape Town.

Participants' perceptual awareness: This study used a questionnaire survey. Participants were handed questionnaires to complete by the researcher. Participants perceive no deviations from everyday routines because the questionnaire did not hinder their routine shopping activities.

3.3 Research paradigm

Denscombe (2011:116) posited that research should be aware of its underlying philosophical underpinning. Paradigm is a "cluster of beliefs and dictates which … influences what should be studied, how research should be done and how results should be interpreted". Additionally, Cameron and Price (2009:54) assert that philosophical foundations concerning the nature of social reality (ontology) and kinds of knowledge (epistemology) will form the guarantor of any researcher's enquiry system. They determine what the researcher chooses to investigate and what are deemed to be valid inputs, valid operations and valid knowledge outputs of the researcher's research enquiry.

This study is based on a positivist research philosophy. According to Cameron and Price, (2009:55) positivism is an epistemological stance that has a fixed or predetermined research design based on objective measures which can be enumerated. The authors further posit that in a positivist philosophy, the main function of the researcher (positivist) is to analyse information, checking similarities and differences. Furthermore, Sekaran and Bourie (2013:29) noted that positivists are more concerned with (1) reliability of observations, (2) rigour and replicability of their research, and (3) the generalisation of findings. Conforming to the positivism philosophy, the survey instrument's validity and reliability were tested before it was used. A sample was drawn from Cape Metropolitan area. As previously indicated, the questions were closed-ended which allowed the researcher to describe the findings. In

concurrence with the above sentiments, Cameron and Price (2009:55) suggest that questionnaire surveys appeal more to positivists.

3.4 Research method

Quantitative research method: According to Zikmund et al. (2013:134) quantitative business research is empirical and answers research questions through numerical measurements and analysis. The authors further elaborated that quantitative studies mostly deal with activities or concepts that can be scaled and can be numerically valued, therefore, they require less interpretation, but are more descriptive in nature. Cooper and Schindler (2011:161) also clarify that quantitative research endeavours to obtain precise measurements of consumer behaviour, knowledge, opinions, or attitudes. Below is Table 3.2 that describes the nature of quantitative research.

Table 3.2: Quantitative research

Research Aspect	Quantitative Research
Common Purpose	Specific research questions
Approach	Measure or test
Data collection approach	Structured response categories provided
Researcher independence	Researcher uninvolved observer. Results are objective
Samples	Large samples to produce generalizable results (results that apply to other situations)
Most often used	Descriptive and causal research designs

Source: Zikmund et al. (2013:135).

Table 3.2 above gives clarification to the nature of this research study. Cameron and Price, (2009:213) posited that quantitative data has vast practical significance, that is, it is not difficult to collect and analyse, and it allows conclusions that can be generalised to a large population. This study uses specific research questions highlighted in Chapter 1, and the questionnaire 455 surveys used to gather data had mainly structured responses. Due to the descriptive nature of the study, a large sample size of 455 participants was used.

3.5 Population and sample

3.5.1 Population

Gravetter and Forzano, (2009:128) defined population as the entire set of individuals of interest to a researcher. Mouton (1996:134) defined population as a “collection of objects, events or individuals having some common characteristics that the researcher is interested in studying”. Flick (2011:71) further highlights that the population of the study is within the confines of the research study’s geographical delimitation which is determined by the research question and operationalisation. Most often, the whole population is not involved in an entire research study, but the results from the sample of the study are generalised to the entire population.

The population covered by this study includes people who reside in the Cape Metropolitan area. The Cape Metropolitan area is in the southern peninsula of the Western Cape Province and it is the province's capital city, as well as the country's legislative capital. The Cape Metropolitan area has a population of about 3.8 million (Local Government Handbook, n.p). The map below (Fig.3.1) is a map that highlights the geographical delimitation of the study.

Figure 3.1: Cape Metropolitan area

Source: Local Government Handbook (n.d)

3.5.2 Sample and sampling method

The sample size for this study was 455 participants drawn from the Cape Metropolitan area of about 3.8 million people. To access the respondents, the researcher made use of probability and non-probability sampling techniques to select participants.

According to Zikmund et al. (2013:392) probability sampling is a sampling technique in which every member of the population has a known, non-zero probability of selection, while non-probability sampling is a sampling technique in which units of the sample are selected based on personal judgment or convenience; the probability of any particular member of the population being chosen is unknown.

The researcher purposively chose seven shopping malls located within the Cape Metropole area where the surveys were conducted. These malls were in the following areas: Rondebosch, Parow, Goodwood, Strand Street (CBD), Observatory, Kuils River and Brackenfell. These shopping malls are mainly community centres, and mostly residence of the Cape Metropole frequently shop in these types of shopping malls. These malls were also

chosen because they were easily accessed by the researcher. The survey instrument was equally distributed among these locations, with 65 questionnaires per shopping mall.

Due to the congestion of shopping malls, a convenience sampling technique was employed to select research participants. The researcher with the help of three assistants stood close to the main grocery retailer and requested respondents to complete the survey.

3.6 Data collection

3.6.1 Survey instrument – questionnaire

As mentioned before, this study follows a positivist research philosophy. Cameron and Price (2009:55) asserted that questionnaires enable one to gather large quantities of data that is valuable for positivists to draw conclusions. Moreover, Sekaran and Bougie (2013:147) postulated that questionnaires are deemed an effective data gathering instrument when the study is descriptive in nature. However, a questionnaire survey should be skilfully and carefully designed to ensure that questions help to achieve research objectives (Bless and Higson-Smith, 2000). To achieve the suggestions made by Bless and Higson-Smith, the following was employed,

Zikmund et al. (2013:334-336) elaborated on three basic considerations to ensure questionnaire quality and design and these are:

i. **What should be asked**

   All the questions were properly constructed to enable an inquiry that would answer the research questions. The researcher used past researches questionnaires and also obtained expert guidance from the researcher's supervisors.

ii. **Questionnaire relevancy**

   The questionnaire should avoid the pitfalls of asking for wrong or irrelevant information. The researcher ensured that all important questions were not omitted. All the questions in the questionnaire were derived from the research questions and objectives, and any unnecessary questions were not included in the survey.

iii. **Questionnaire accuracy**

   The researcher should avoid biased answers by making sure that the questions are structured in a way that stimulates interest or motivates the respondent to finish answering all the answers. Questionnaire accuracy can be achieved by properly wording the questionnaire and sequencing the questions. A pilot study was done to ensure that the survey questions can be easily understood, that the survey is easy to answer and respondents can fill the questionnaire in the shortest time while enabling the gathering data that answers research questions.

Bless and Higson-Smith (2000:112) tabled the following advantages and disadvantages of questionnaires below:

Table 3.3: Advantages and disadvantages of questionnaire

Advantages	Disadvantages
• Easy standardised • Low drain on time and finances • Very little training of researchers	• Difficult to interpret subjects' responses • Difficult to check that subject understands the questions • Low response rate and response bias

This questionnaire had Likert scale questions which measured participants' degree of agreeing or disagreeing. To ensure that the survey instrument is valid and reliable the questions were mainly derived from past studies and some questions were tailored to suit the current study. The use of previously used questions by other researchers is supported by (Thietart et al., 2001:173; Kurnia & Chien, 2003; Zikmund et al., 2013). Some questions sought to rank factors in order of importance, which aided in identifying factors that influence consumers' behavioural intention to adopt OGS as a grocery shopping channel. Demographic information was also collected which enabled identification of demographic characteristics adopters and non-adopters of OGS.

3.6.2 Pilot testing

Researchers are encouraged to pilot test their research instruments before the actual study resumes. Cooper and Schindler (2011:89) elucidate that a pilot study helps researchers to identify weakness in instruments used for data collection. However, the authors caution researchers not to exhaust the supply of respondents or over sensitising them to the purpose of the study.

Twenty respondents were selected to complete the survey to determine errors, the average time each respondent takes to complete a questionnaire, and other challenges. Among them were post-graduate students and general consumers. Post-graduate students were selected randomly at the CPUT Cape Town Library and the general consumers were randomly selected at the Strand Street Mall which is located close to where the researcher's residence. The responses helped to make modifications on the questionnaire.

3.7 Validity and reliability

Bless and Higson-Smith (2000:125) clarified that reliability is "the extent to which the observable (or empirical) measures that represent a theoretical concept are accurate and stable when used for the concept in several studies" while validity is "concerned with just how accurately the observable measures actually represent the concept in question or whether, in fact, they represent something else". Thietart et al. (2001:196) argue that validity and

reliability of a study determine whether that study will be of value or not and if that study contributes to the body of knowledge. If a study is not reliable and valid, it is of no use, because another researcher cannot use it.

To ensure validity and reliability of the questionnaire survey instrument for this study, the researcher made use of past peer reviewed journal questionnaire questions, and further scrutiny was done by the researcher's supervisor and the CPUT business faculty statistician.

3.8 Data analysis

According to Cooper and Schindler (2003:87), data analysis involves reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques. In this study, Statistical Package for Social Sciences (SPSS) version 23 and Microsoft Excel were used to capture and to analyse data. These tools enabled the generation of tables, bar graphs and pie charts which were used in the presentation and interpretation of data.

3.9 Summary

This chapter fully detailed the methods and procedures that were used in this study. To note, the following research methodology main areas were covered, which include research design, research philosophy, research method, population and sample, validity and reliability, and ethical consideration. Specifically, this research study used quantitative research method to gather data from 455 participants, and 391 surveys were usable and were coded using SPSS version 23 and Microsoft Excel for data analysis and presentation, described in the next chapter.

CHAPTER 4
DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The preceding chapter discussed the research design that was used in this study. The research study objectives were:

- To identify the demographic profiles of adopters and non-adopters of online grocery shopping in the Cape Metropolitan area.
- To determine factors that influence consumers' behavioural intention to adopt online grocery shopping in the Cape Metropolitan area.
- To ascertain the order of importance of factors that influence consumers' behavioural intention to adopt online grocery shopping in the Cape Metropolitan area.
- To develop guidelines to improve consumer adoption of online grocery shopping in the Cape Metropolitan area.

A quantitative research inquiry was used to achieve the research objectives for this study. A sample of 455 participants was drawn from the Cape Metropolitan Area, and 391 completed questionnaires were usable (Appendix A). The responses were coded and captured using SPSS version 23. To clearly present and analyse the data, the following structure in Figure 4.1 was used.

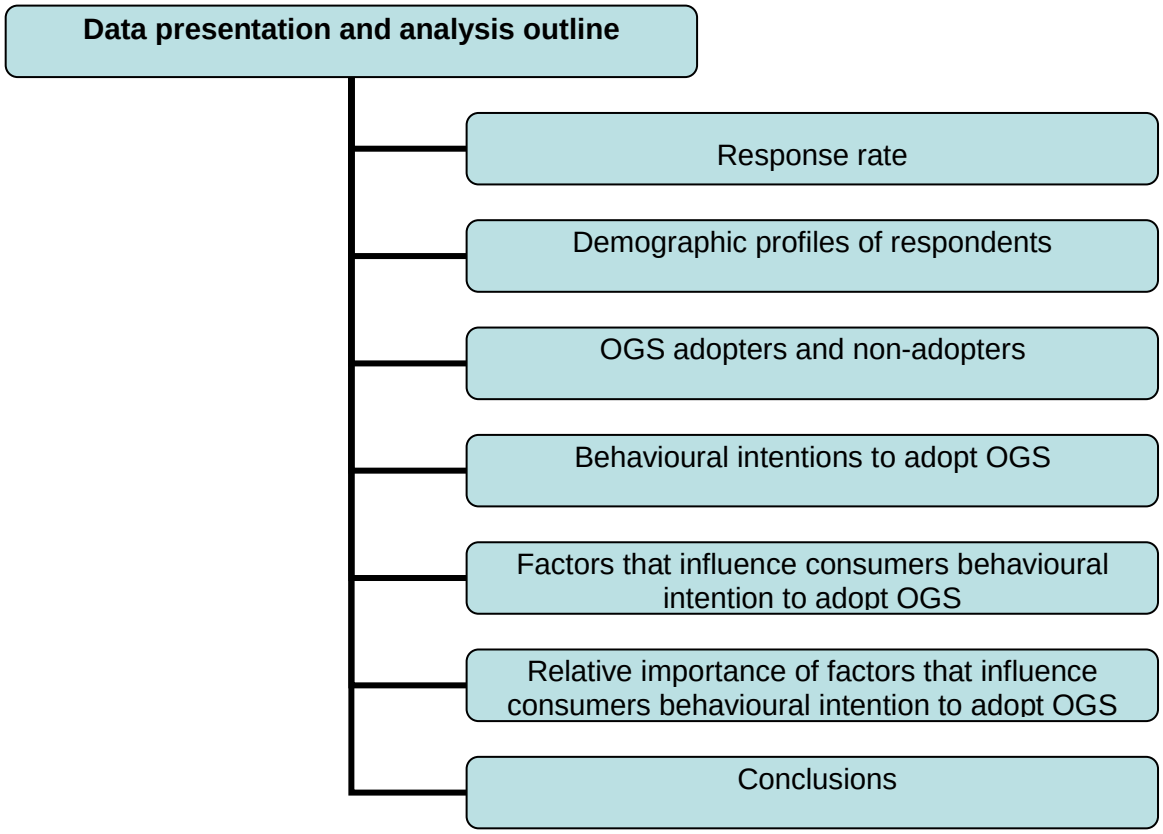


Figure 4.1: Data presentation and analysis outline

Source: Researcher

As shown in Figure 4.1, the first step was to describe the response rate from the questionnaires that were distributed, to check if the responses were sufficient for further analyses to be done. The second step was to describe the demographic profiles of respondents. The third step was to identify respondents who have used OGS before (adopters) and respondents who have not used OGS before (non-adopters). This is followed by the fourth step which discusses respondents' behavioural intention to adopt OGS in the future. The fifth step was a correlation dependent (behavioural intentions to adopt OGS) and independent (Perceived Usefulness [PU], Perceived Ease of Use [PEOU], Perceived Risk [PR], Perceived Cost [PCo], Perceived Image Barrier [PIB], Visibility [VIS] and Social Attractiveness [SAT]) to determine the factors that influence consumers' intention to adopt OGS. The sixth step described the ranking, in order of importance, of the factors that influence consumers' intention to adopt OGS. And lastly, the main findings of the chapter are given in the summary.

4.2 Response rate

A questionnaire survey instrument was used to gather data in different locations within the Cape Metropolitan area. Of the 455 surveys that were distributed, only 391 were fully completed and 64 were discarded because they were not usable. Therefore, the response rate was 85.9% which was substantial enough for further analysis to be done.

4.3 Demographic profiles of respondents

Demographic profiles of respondents which relate to gender, marital status, level of education and race are presented below. Figure 4.2 shows gender distribution of respondents (n=391).

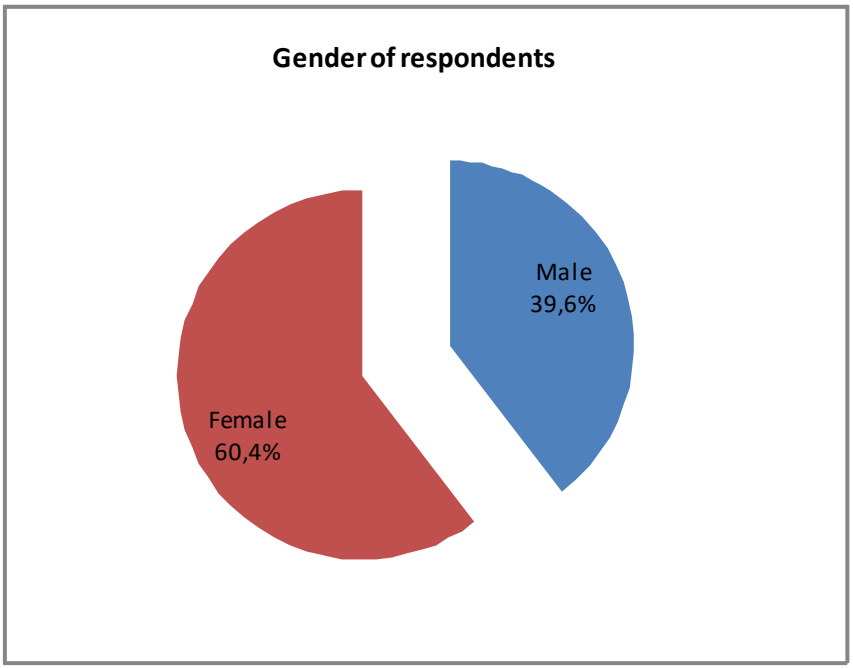


Figure 4.2: Gender of respondents

As shown in Fig 4.2, of the 391 respondents, there were more females (60.4%) than males (39.6%). Females also tend to be the grocery shoppers in the family.

The next presented demographic characteristic of respondents in Table 4.1 is the age distribution. Most respondents (48.3%) were between the ages of 26 to 45 years, followed by respondents in the age category of 18 and 25 years (41.7%). Respondents who were older than 60 years were only 1.0% and respondents under the age of 18 years were 3.8%.

Table 4.1: Age distribution of respondents

Age (years)	Frequency (n=391)	Percentage
Under 18	15	3.8%
18-25	163	41.7%
26-45	189	48.3%
46-60	20	5.1%
Older than 60	4	1.0%

The Figure 4.3 below shows the marital status of respondents who participated in this study

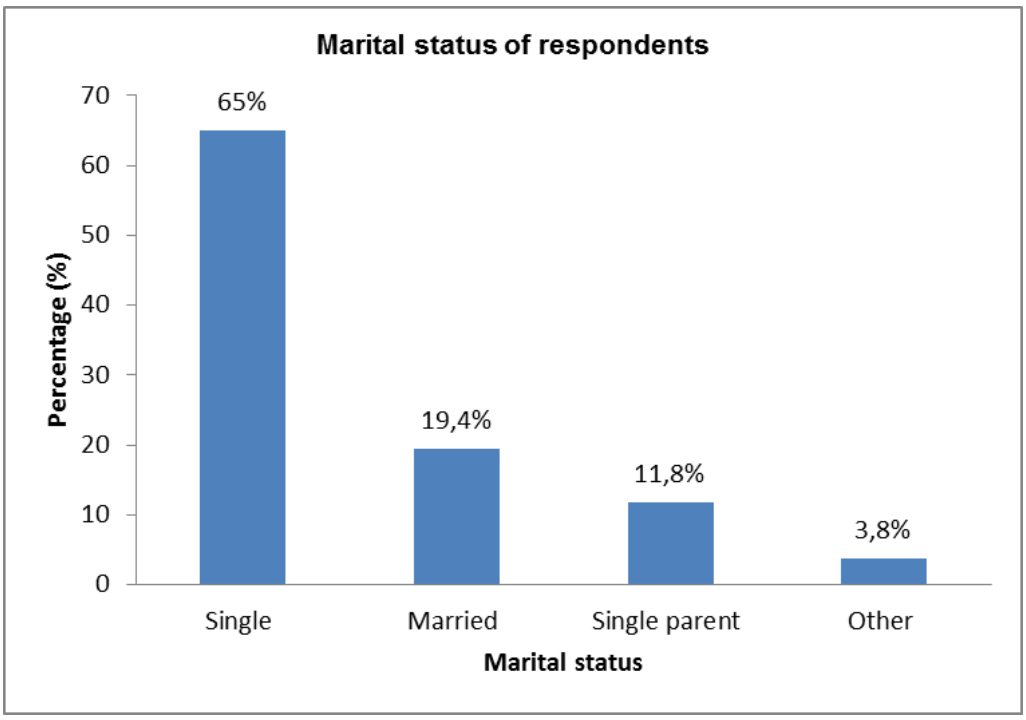


Figure 4.3: Marital status of respondents

Figure 4.3 shows that the majority of respondents were single (65%), while married and single-parent respondents constituted 19.4% and 11.8% respectively. Marital status represented as others (these includes widowed, divorced and cohabiters) had 3.8% respondents.

The education qualifications of respondents are highlighted in Fig 4.4. The questionnaire had five educational qualification levels and respondents had to indicate one qualification that represents their highest level of qualification. These five educational qualification levels included high school and below, diploma, bachelor's degree, master's degree, and doctorate degree.

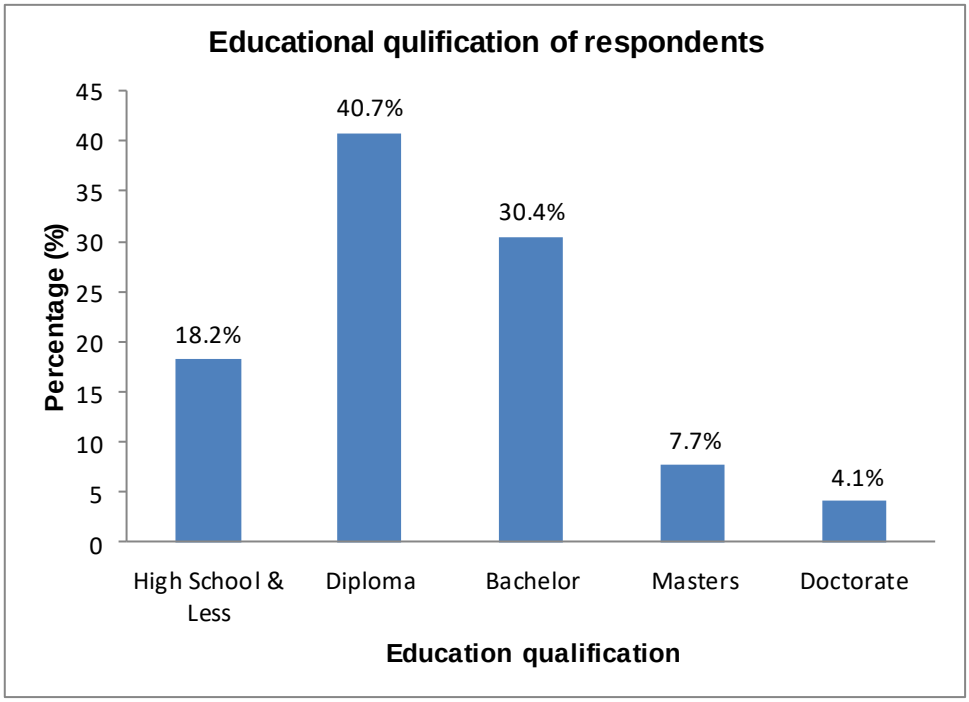


Figure 4.4: Educational qualification of respondents

According to Figure 4.4, most respondents had a diploma (40.7%), followed by respondents with bachelor's degree (30.4%). Respondents with high school and less educational level were 18.2% and respondents with a master's degree were 7.7%. The least of the respondents had a doctorate degree (3.1%). The following Figure 4.5 represents the race of respondents.

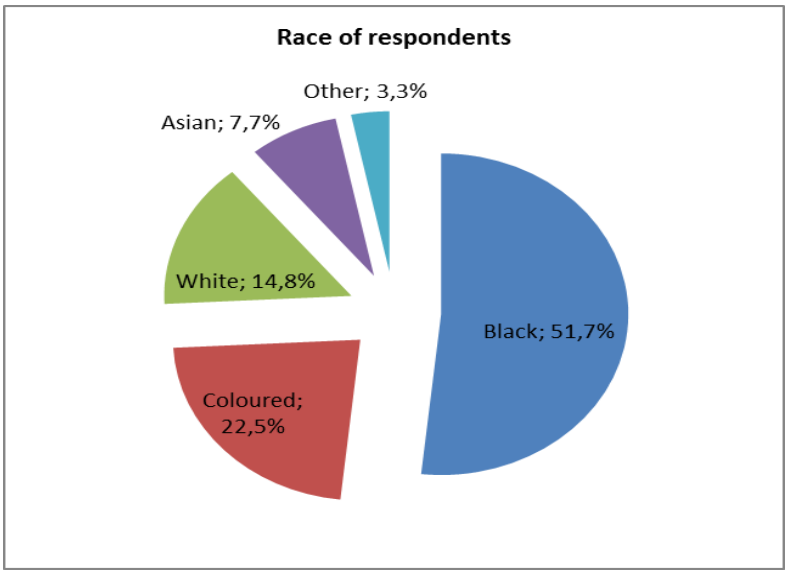


Figure 4.5: Race of respondents

Figure 4.5 shows the racial distribution of respondents. Most respondents were blacks (51.7%). Coloured were 22.5%, Whites (14.8%) and Asians (7.7%). Respondents who were indicated as other were 3.3% (respondents that did not indicate their race group). Although

these various racial groupings are found in Cape Town, the data shown in Figure 4.5 should be interpreted with caution because the sample had a bias towards black respondents.

4.4 OGS adopters and non-adopters

This section presents data that highlights adopters and non-adopters of OGS. Adopters are respondents who had previously bought groceries online while non-adopters were respondents who had not bought groceries online at the time this research was conducted. Previous studies show that although the online grocery market is still at the infancy stage in SA (Bra, 2013; Datamonitor, 2010:29; McClathey et al., 2007:124), there are some consumers who are buying groceries online. This was echoed by Writer (2014a) who postulated that OGS is on the rise in SA. Profiling the demographic characteristics of OGS adopters and non-adopters helps with crafting marketing strategies that can help to lure and retain online grocery consumers.

Using a dichotomous question: *"Have you bought groceries on the Internet before?",* helped to distinguish between adopters and non-adopters of OGS. The adopter and non-adopter question were further correlated with the demographic characteristics of respondents (gender, age, marital status, the level of education and race) to demographically profile the OGS adopters and non-adopters.

The following Figure 4.6 shows adopters and non-adopters of OGS.

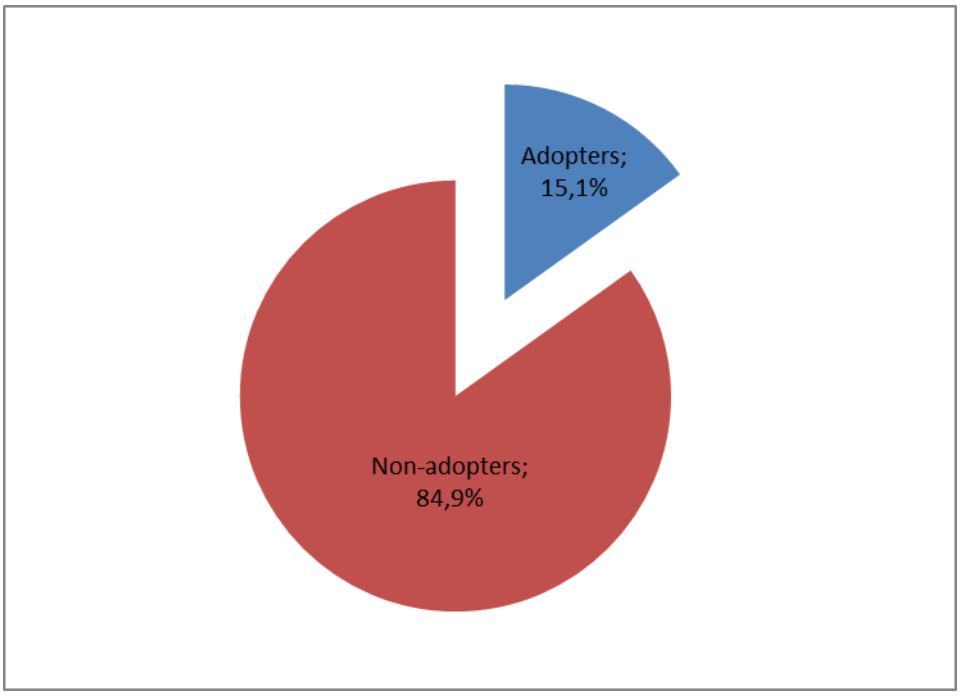


Figure 4.6: OGS adopters and non-adopters

As evidenced in Figure 4.6 above, the majority of respondents were non-adopters of OGS (84.9%) and only 15.1% had previously bought groceries online. These findings seem to agree with Bra (2013), Datamonitor (2010:29) and McClathey et al. (2007:124) who indicated that OGS is not yet prominent in SA. This also might suggest that consumers are still comfortable with their traditional grocery shopping methods.

Moreover, to clearly profile the adopters and non-adopters, demographic characteristics of gender, age, marital status, educational qualifications and race were used.

Gender representation of adopters and non-adopters of OGS is presented in Figure 4.7. As shown in Figure 4.7 there is a significant number of OGS non-adopters on both genders. Female non-adopters were 80% while males were 74.2%. Interestingly, male respondents were the majority OGS adopters (25.8%), while females were 19.9%. Gong et al. (2013:218) highlighted that females are more sensitive to risk involved with purchasing online than males, which causes females to browse product preferences online and complete their purchase offline. Lian and Yen (2014:137) findings also indicated that males are more likely to shop online compared to females.

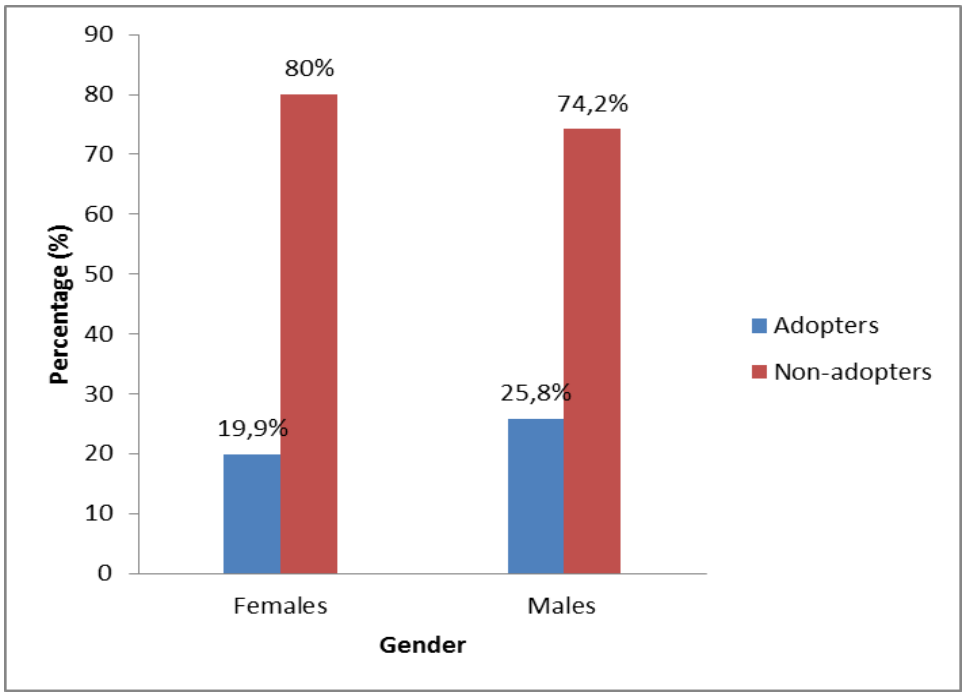


Figure 4.7: Gender of OGS adopters and non-adopters

Figure 4.8 shows the age groupings of adopters and non-adopters of OGS.

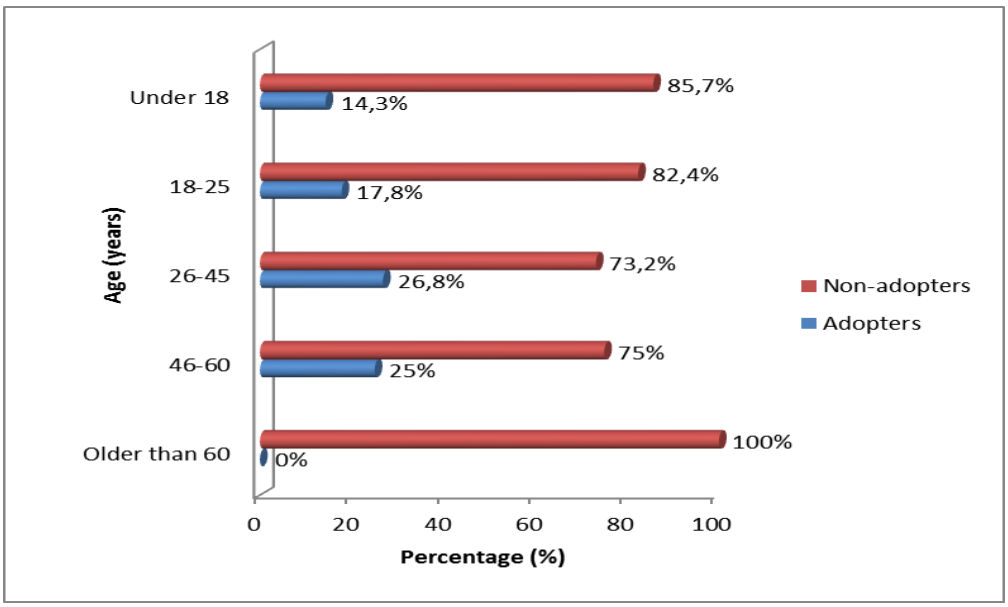


Figure 4.8: Age of OGS adopters and non-adopters

Respondents between the ages of 26 to 45 years had the highest percentage of OGS adopters (26.8%), followed by respondents of ages between 46 to 60 years (25.0%) as shown in Figure 4.8. These age groups of 26-45 years and 46-60 years mostly consist of economically active consumers. A study by Kempiak and Fox (2002) discovered that consumers of ages between 25 to 34 years are the predominant online grocery shoppers, which seems to concur with the findings of this study which reflect that the majority of OGS adopters are between the ages of 26 to 45 years. Furthermore, this study also shows that respondents of the age category of 46 to 60 years had a significant percentage of OGS adopters. Previous studies suggest that attention should also be directed to older consumers because they are increasingly learning how to shop online (Lian & Yen, 2014:137; Keh & Shieh, 2001:76).

Among these groupings, non-adopters' percentages were significantly higher than those of adopters. None of the respondents older than 60 years had bought groceries online before. Both respondents under the age of 18 years and respondents between the ages of 18 to 25 years had over 80% of OGS non-adopters within their age groups. Usually, consumers between these age groups are dependent on their parents or guardians who buy household groceries.

The marital status of OGS adopters and non-adopters is shown below in Figure 4.9.

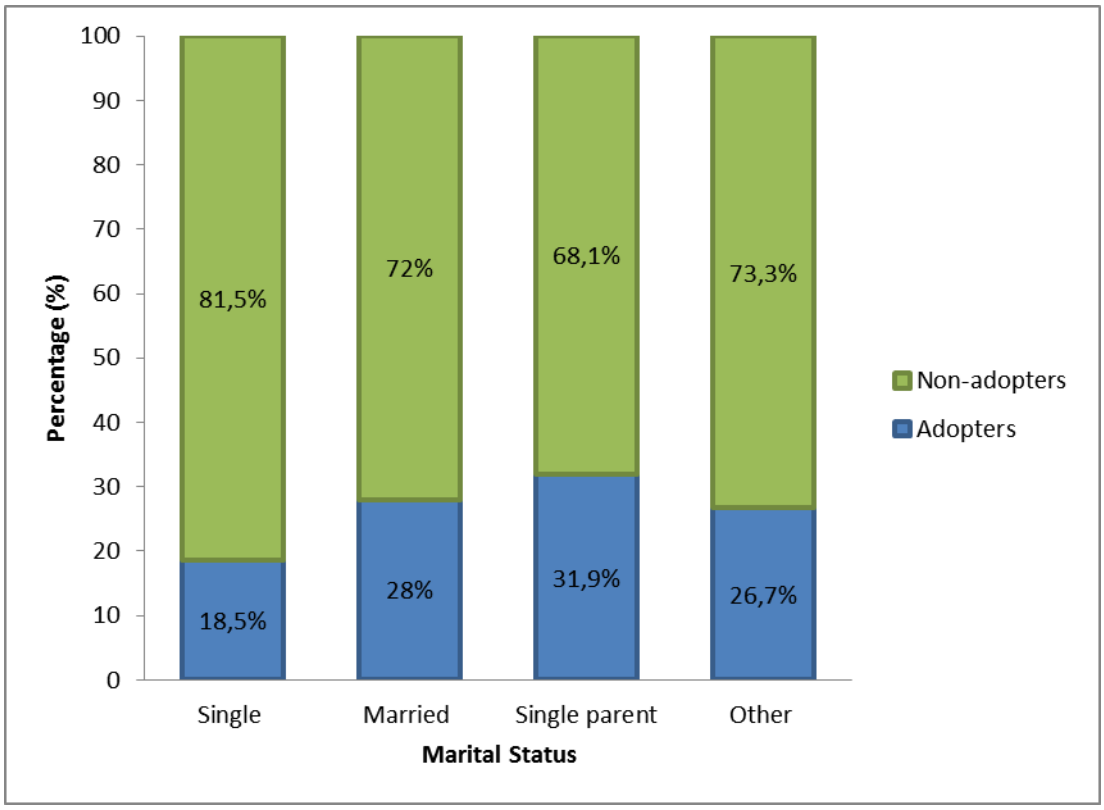


Figure 4.9: Marital status of OGS adopters and non-adopters

The above results (Figure 4.9) show that most OGS adopters were single parents (31.9%) followed by married persons (28.0%). Respondents referred to as others (widowed, divorced and co-habiting) had 26.7% OGS adopters and single respondents had 18.5% adopters within their respective marital status groups. The literature that was reviewed indicated that current family structures are predominantly single headed families (Gan et al., 2007:474; Verhoef & Langerah, 2001:275; Kempiak & Fox, 2002). The results of this study seem to agree with Murphy (2007:950) who postulated that mothers with young children are most likely to shop groceries online to avoid crowded supermarkets.

Additionally, this study also shows that respondents that were single had the highest percentage of non-adopters (81.5%). Respondents referred to as others (which constituted widowed, divorced and co-habiting respondents) had 73.3% OGS non-adopters, married respondents (72.0%) while single parents had 68.1% OGS non-adopters.

Figure 4.10 below shows the educational qualifications of adopters and non-adopters of OGS.

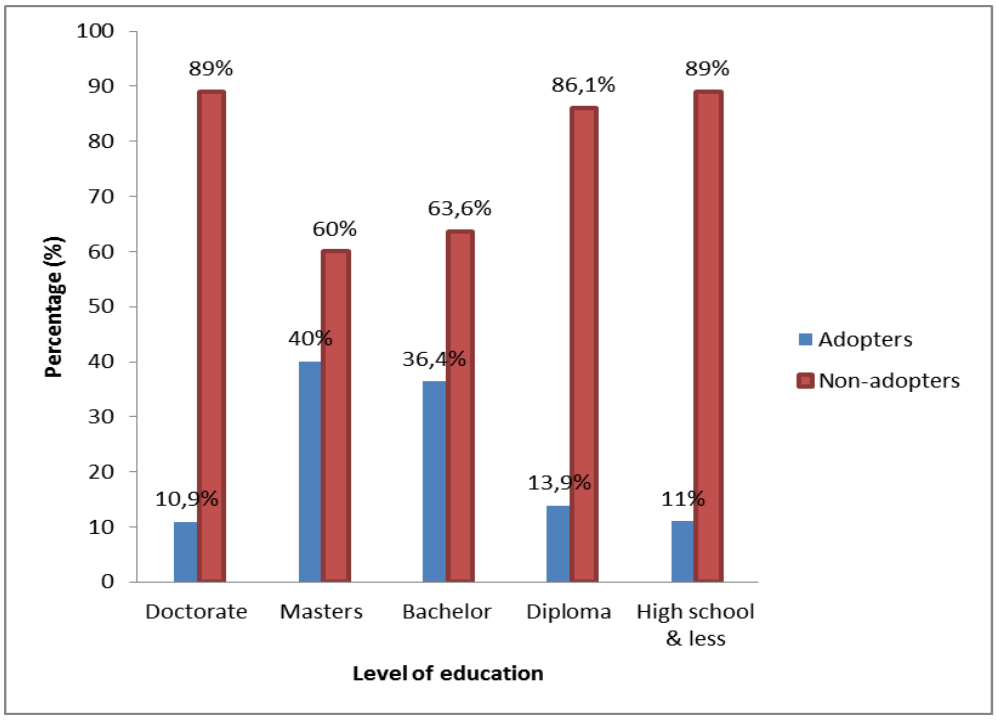


Figure 4.10: Educational qualification of OGS adopters and non-adopters

Figure 4.10 above shows that respondents with a master's degree had the highest percentage (40%) of adopters, followed by those with bachelor's degree (36.4%) within the respective educational groups. Adopters within the diploma educational qualification were 13.9%. On the other hand, respondents with a doctoral degree, and those with a high school and less educational qualification had the largest percentage of OGS adopters at 89% of respondents from both levels of education. Roy Dholakia and Uusitalo (2002:462) suggest that online shopping is likely to be influenced by education. Gong et al. (2013:219) noted that the more educated the consumer was, the more technology knowledgable they are likely to be. The literature surveyed did not provide specific educational qualifications of OGS adopters. However, the survey results indicated that respondents with master's degrees are the majority OGS adopters followed by respondents with a bachelor's degree. It can be concluded that education plays a role in consumer OGS behaviours since the most marked adopters have a degree qualification.

Figure 4.11 below shows the racial groupings of OGS adopters and non-adopters.

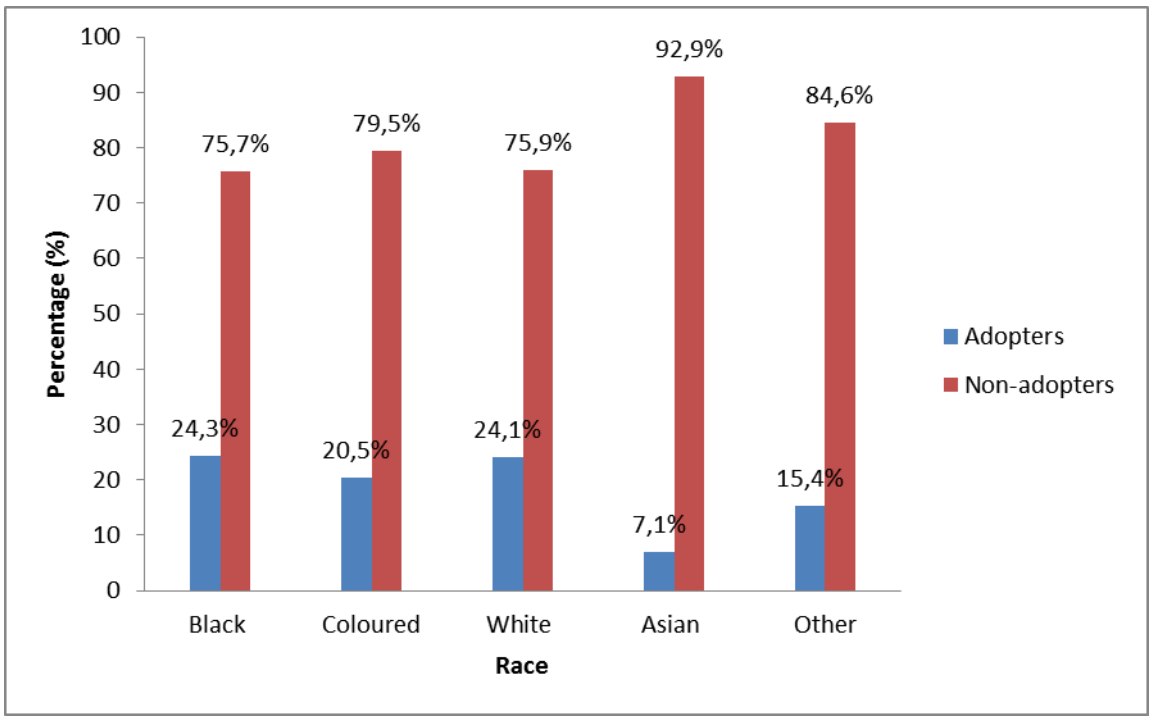


Figure 4.11: Race of OGS adopters and non-adopters

The survey results indicated that blacks and whites had the highest percentages of OGS adopters with 24.3% and 24.1% of their respective race categories. Coloured respondents who had used OGS before were 20.5% of total coloureds. Asian respondents had the most OGS non-adopters (92.9%). Respondents indicated as others had 84.6% of non-adopters in the category. The race group shown as others, included respondents who do not indicate their race group. It was indicated previously that there are more black respondents on this study than other racial groupings which could inhibit the ability of the researcher to fully conclude based on racial groupings of OGS adopters and non-adopters. However, the findings based on the responses from black, white and coloured people show remarkably similar response patterns.

4.4.1 Products/services bought online

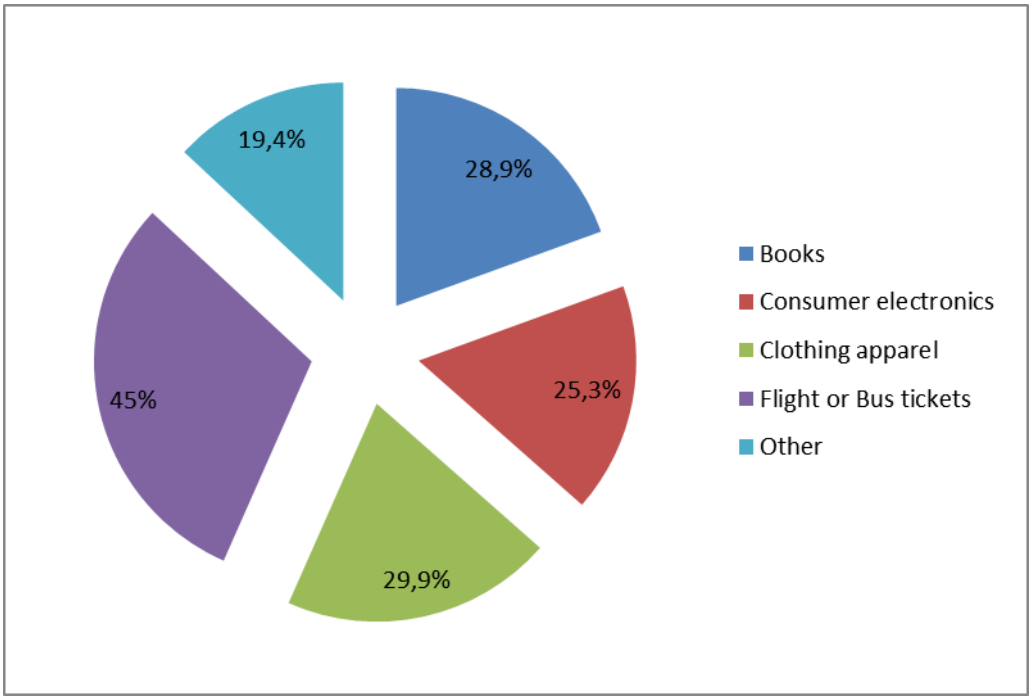


Figure 4.12 Other Products/Services bought online

Figure 4.12 shows other products/services bought online besides groceries. Flight and bus tickets (45%) were the most bought item online by respondents. Books (28.9%) and clothing apparel (29.9%) were also purchased online. From Figure 4.12 it can be deduced that consumers are more comfortable with buying tickets online than books, consumer electronics, clothing apparel and any other products.

4.4.2 Behavioural intention to adopt OGS

Behavioural intention to use OGS was gauged by the question, *"Will you (continue to) buy groceries online in the future?"* Respondents had options to indicate *"Yes, Undecided or No."* Cross tabulation of behavioural intention to adopt OGS and demographic characteristics of respondents was done in order to ascertain future potential online grocery shoppers.

Figure 4.13 below shows behavioural intention to adopt OGS

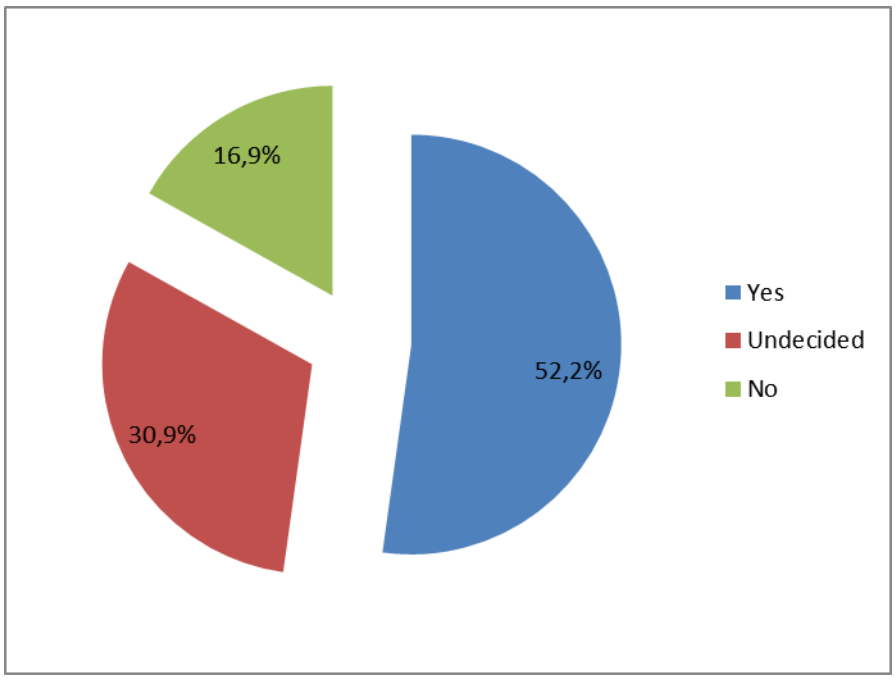


Figure 4.13: Behavioural intention to adopt OGS

Respondents' behavioural intention to adopt OGS is highlighted in Figure 4.13. More than half of the study respondents (52.2%) had a positive response to their intention to adopt OGS in the future, while only 16.9% responded negatively towards their intention to adopt OGS, and 30.9% of respondents were undecided.

Table 4.2 shows a cross-tabulation of behavioural intention to adopt OGS and gender.

Table 4.2: Behavioural intention to adopt OGS according to gender

		Gender				Total
		Female		Male		
Behavioural intention to adopt OGS	**Yes**	126	53.4%	78	50.3%	204
	No	40	16.9%	26	16.8%	66
	Undecided	70	29.7%	51	32.9%	121
Total		236	100%	155	100%	391

A significant majority of both males and females responded positively towards their future intention to adopt OGS as shown in Table 4.2. The majority of females (53.4%) and males (50.3%) had a positive behavioural intention to accept and use OGS in the future. Among the respondents who had a negative intention to adopt OGS were females with 16.9% and males with 16.8%. Some of the respondents were still unsure of their decision to adopt OGS; these included 29.7% females and 32.9% males.

The following (Figure 4.14) shows behavioural intention to adopt OGS according to age categories of respondents.

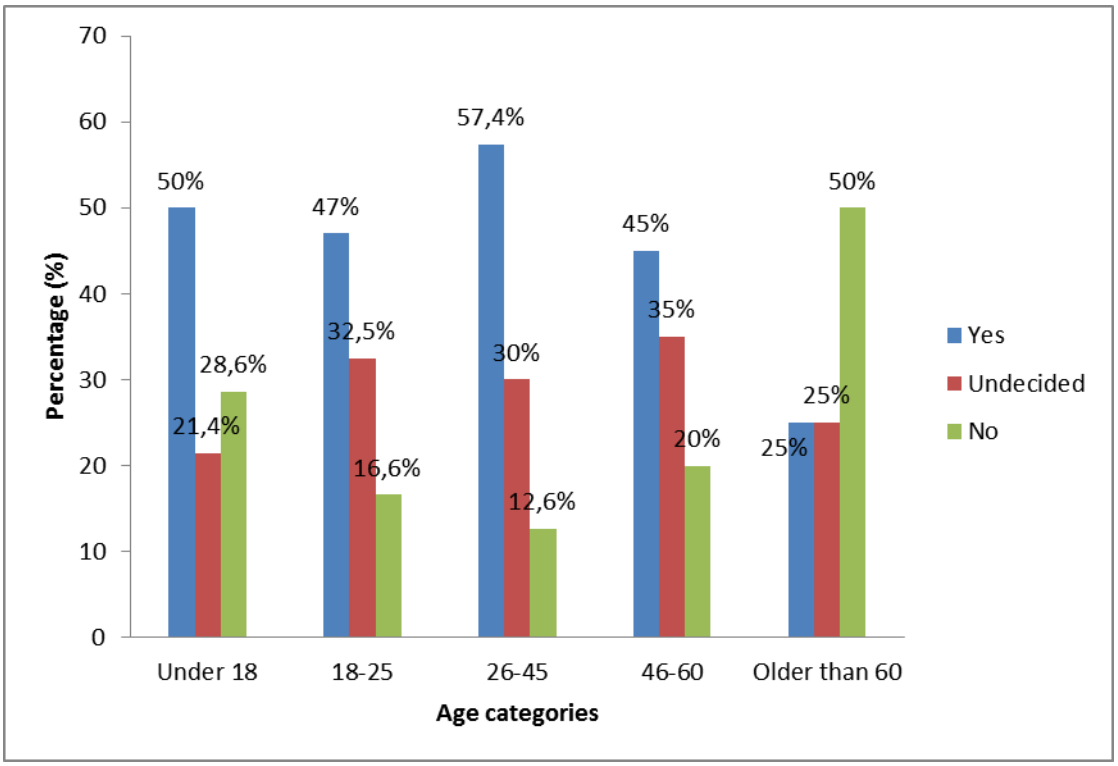


Figure 4.14: Behavioural intention to adopt OGS according to age category

As noted in Figure 4.14 most of the respondents in the different age groups show a positive behavioural intention to adopt OGS, except for respondents older than 60 years. Half of the respondents under 18 and more than half of those between the ages of 26-45 years indicated that they will use online grocery stores in the future. Respondents in age categories of 18 to 25 years (47%) and 46 to 60 years (45%), had the intention to shop groceries online. Respondents who were older than 60 years (50%)had a negative intention to adopt OGS.

Cross-tabulation of marital status and behavioural intention to adopt OGS is shown in Figure 4.15 below.

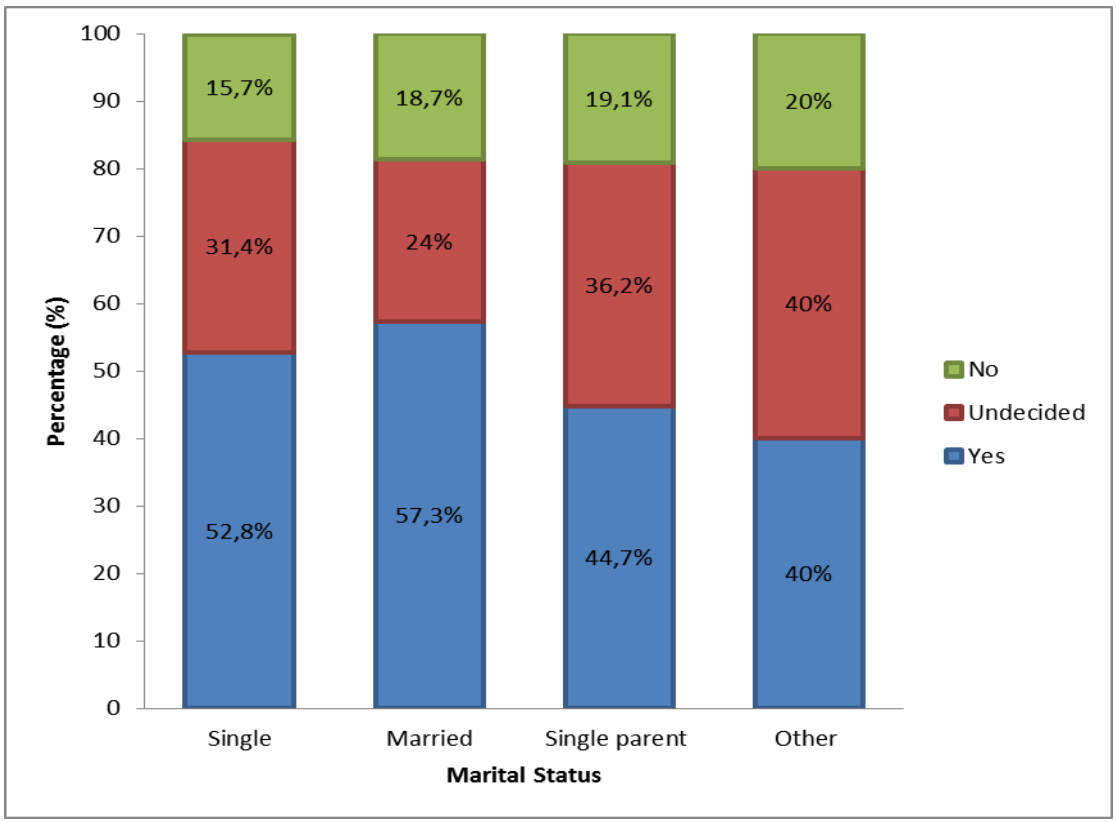


Figure 4. 15: Behavioural intention to adopt OGS according to marital status

According to Figure 4.15, respondents who indicated that they were married had the highest percentage (57.3%) of adopting OGS, followed by respondents who were single (52.8%). Single parents and others (which include widows, divorced and co-habiting) had 44.7% and 40% respectively of respondents who indicated that they will do OGS in the future. On the contrary, some respondents gave negative feedback on the intention to adopt OGS in the future. These include respondents who were single parents (19.1%), married (18.7%), single (15.7%) and other (20%). Some of the respondents were undecided about their decision to adopt OGS. Married respondents (24%) had the lowest percentage of respondents who were undecided on whether to adopt OGS or not, while others had the highest percentage of respondents that were undecided (20%). Respondents that were single and single parents had 31.4% and 36.2% respectively, with regards to those who were undecided.

The illustration (Figure 4.16) shows the results of cross-tabulation between behavioural intention to adopt OGS and educational qualifications.

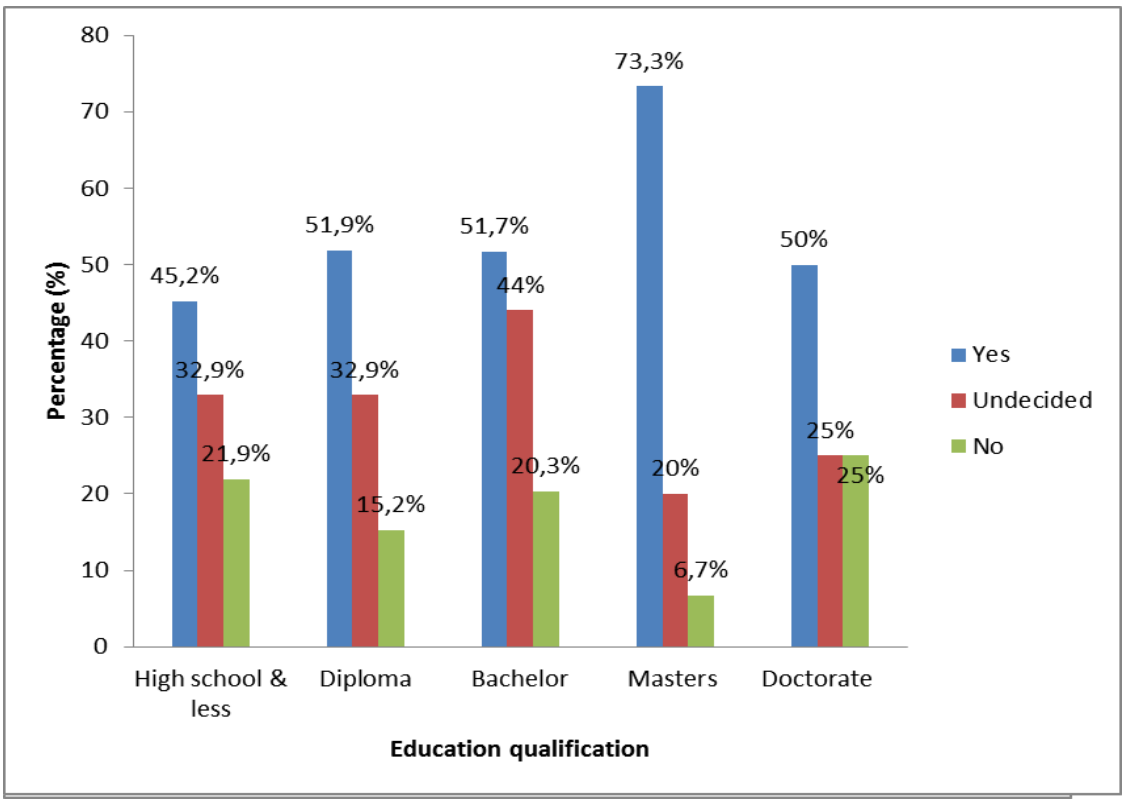


Figure 4.16: Behavioural intention to adopt OGS according to educational qualifications

According to Figure 4.16, respondents in all educational qualifications show a positive behavioural intent to adopt OGS, however, respondents with a master's degree had the highest percentage of potential use of OGS (73.3%). More than half of respondents with a diploma, bachelor's degree, and doctoral degree, indicated a positive use of OGS in the future. Respondents with a bachelor's degree had the most respondents who were undecided about their future use of OGS. Also, respondents with a master's degree had the lowest number of respondents who had a negative intention to use OGS (6.7%).

In Figure 4.17, behavioural intention to adopt OGS was cross-tabulated with race, to ascertain racial differences in the adoption of OGS.

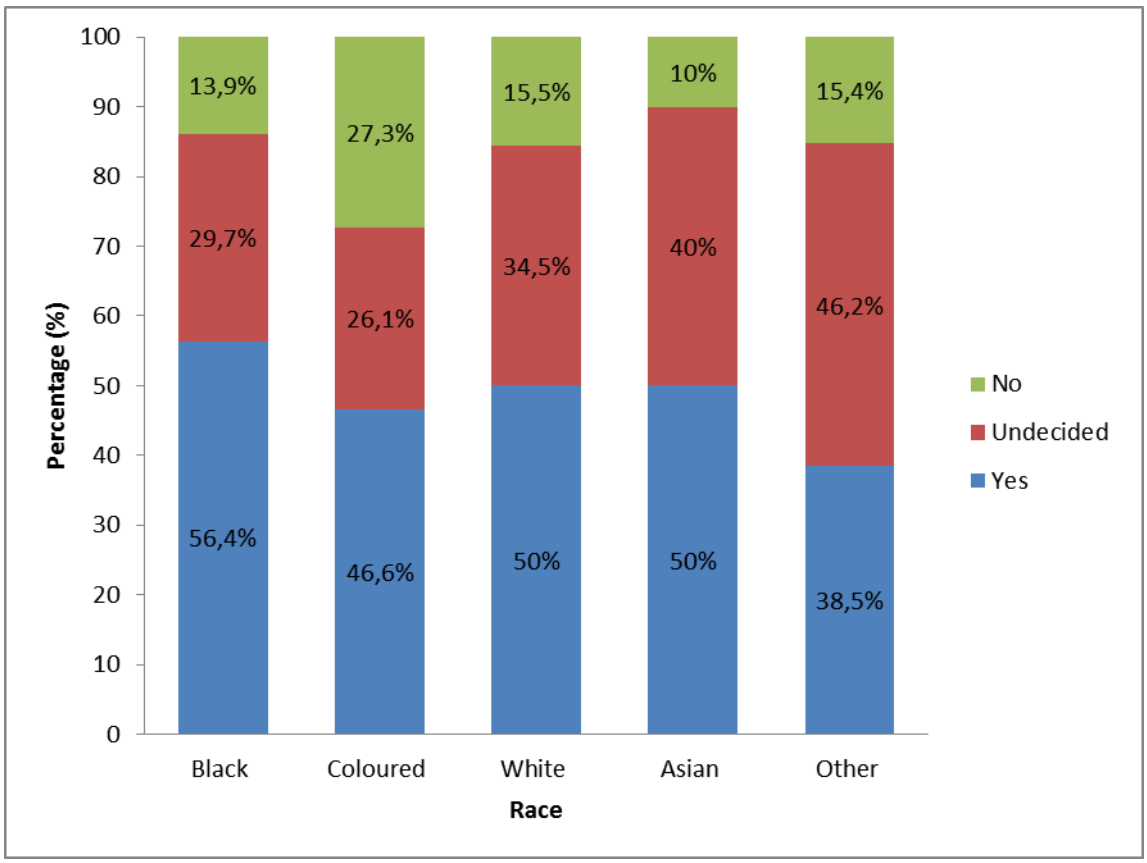


Figure 4.17: Behavioural intention to adopt OGS according to race

Figure 4.17 shows behavioural intention to adopt OGS according to race. As shown above, coloured respondents had the most respondents with a negative intention to OGS adoption. On the other hand, black respondents had a slightly higher positive response towards their intention to adopt OGS (56.4%) than whites (50%) and Asian (50%). Respondents who were coloured had 46.6% while race category defined as other had 38.5% of respondents that had a positive intention to use OGS in the future. Some respondents who were unsure about their intent to use OGS include the race group indicated as others (46.2%) being the highest, and coloured respondents had the lowest of 26.1%. Although the relatively small number of respondents in some race categories make comparisons problematic, it nevertheless appears as if the responses of the different race groups are not that far apart and that other socio-economic characteristics such as marital status, age and education may well be better indicators.

4.5 Devices used by respondents to access the Internet

The following description sought to identify devices that respondents use to access the Internet.

Figure 4.18 shows various devices in their percentage proportions as used by the respondents to access the Internet. Respondents were able to indicate multiple responses.

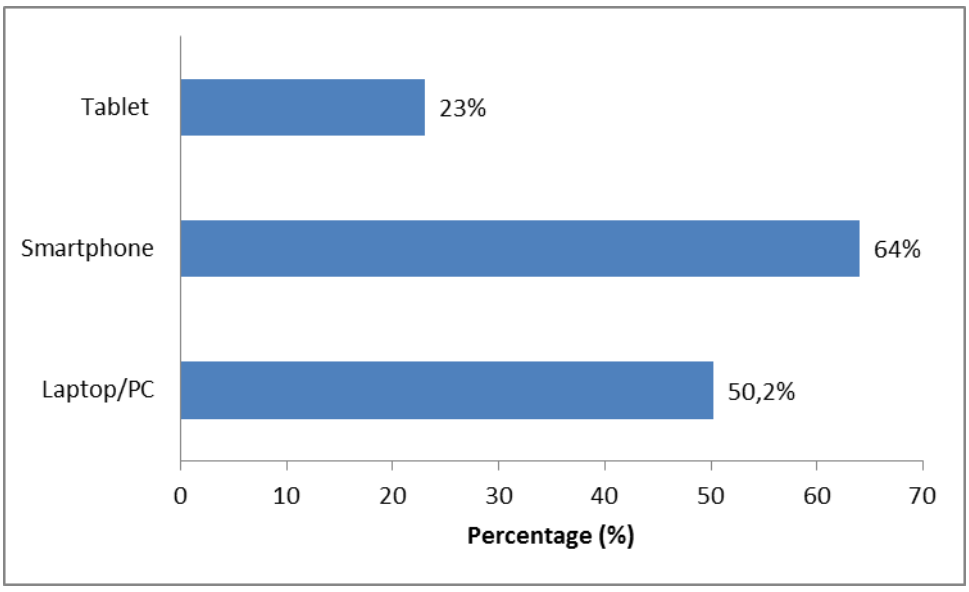


Figure 4.18: Gadgets used by respondents to access the Internet

The responses in Fig 4.18 show that 64% of respondents use their smartphone to access the Internet, followed by 50.2% respondents who use their laptops or PC (Personal Computer, while respondents who use tablets were 23%. Goldstuck (2012:1) postulated that the increase in smartphones and other Internet-enabled mobile devices' penetration in Africa could be major a driver to e-commerce growth in Africa.

4.6 Factors that influence consumers' behavioural intention to adopt OGS

In chapter 2 of this study, the research model (Figure 2.7) highlighted proposed factors that can influence consumers' behavioural intention to adopt OGS. The research model consisted of independent and dependent variables. Dependent variables included Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Perceived Risk (PR), Visibility (VIS), Perceived Image Barrier (PIB) and Social Attractiveness (SAT), while 'Behavioural intention to adopt OGS' was the independent variable. Each dependent variable (construct) consisted of sub-factors which made up the construct. These sub-factors will be discussed in the following sections.

All the constructs in the study were calculated using a regression formula, rather than the straight average. The reason for this is to compensate for the fact that individual items do not have an equal impact on the items. The resulting constructs, therefore, range in values around 0, where negative values indicate disagreement and positive values indicate agreement and are numerical values.

Since the dependent variable is a categorical variable, the assumption of normality cannot be met. Therefore, a Generalised Linear Model for non-normal, categorical or binary data (Simonoff, 2003:125-133; Agresti, 2007:66) was utilised.

The Generalised Linear Model belongs to a family of linear models that includes regression models and variance analysis. It is a generalised form of the classic linear model.

The classic linear model has the form:

$$E(Y) = a + bx \quad \text{or} \quad Y = \mu + \epsilon$$

Where a = the intercept
b = the slope
x = independent variable
Y = dependent variable

All classic linear models assume that all observations are independent of each other and are normally distributed. The proposed factors that determine consumer adoption of OGS had sub-factors which were aggregated from Likert-scale type questions in a survey, meaning one cannot safely assume that the construct will be normally distributed and that relationships cannot be found using the classic linear model.

The Generalised Linear Model consists of a random component, a systematic component and a link function (McCullagh & Nelder, 1989). The following are the assumptions of the *classic* linear model, as outlined by McCullagh and Nelder (1989):

i. each component of the dependent variable, Y, is independent and normally distributed, having a common variance (random component),
ii. the covariates are combined to give the linear predictor (systematic component), $\eta_i = \alpha + \beta_1 X_{i1} + \beta_2 X_{i2} + \cdots + \beta_k X_{ik}$
iii. a link function, $g(\cdot)$, which specifies the relationship between the random component and the systematic component
$g(p_i) = \eta_i = \alpha + \beta_1 X_{i1} + \beta_2 X_{i2} + \cdots + \beta_k X_{ik}$

From a generalised linear model stand point, the first assumption is relaxed meaning the dependent variable does not have to be normally distributed. The variance does not have to be common, and the link function mentioned in the third assumption is monotonic and differentiable. Link functions are chosen according to the data type and the context of the data. The dependent variable in this study is binary, thus a logit link function $g(p) = \ln \frac{p}{1-p}$ is selected, where p, for example, is the probability (p) of a specific profile making a specific selection (Simonoff, 2003:366-367).

The logistic regression model relating the predictors (independent variables, i.e. x_1, x_2 …, x_k) to a specific p are written as:

$$\log\frac{p}{1-p} = \alpha + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_k x_k \quad (0\text{-}1)$$

From (i) the probability (p) of a specific profile making a specific selection can be calculated as

$$p = \frac{e^{\alpha + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_k x_k}}{1 + e^{\alpha + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_k x_k}} \quad (0\text{-}2)$$

The Generalised Linear Model was applied to determine which constructs have an impact on consumer behavioural intention to adopt OGS.

Statistical significance expressed as a p-value was used to measure a significant level of each construct. The p-value of each construct should be within the range of 0.001> and <0.05 for it to be considered to have a positive influence or significant influence on the independent variable (behavioural intention to adopt OGS).

a) Perceived Usefulness (PU)

In order to determine consumer perception on the usefulness of OGS, the following questions making up the PU construct were used:

- Online grocery shopping (will) provide me with a broader selection of grocery products.
- Online grocery shopping online (will) save me money
- Online grocery shopping (will) save me time
- Online groceries shopping (will) enable me to compare products and prices of grocery merchandise.
- The Internet (will) give me access to useful grocery shopping information

Table 4.3 below shows responses from the survey which highlights respondents' perceptions on OGS' usefulness.

Table 4.3: Perceived Usefulness (PU)

		Behavioural intention to adopt OGS					
		No	Yes	Undecided	N=391	%	p-value
(PU)	Strongly Disagree	0	2	2	4	1	
	Disagree	17	14	10	41	10.5	
	Not sure/uncertain	25	43	50	118	30.2	**0.05**
	Agree	20	109	55	184	47.1	
	Strongly Agree	4	36	4	44	11.3	
Total		66	204	121	391	100	

The key conclusions that can be drawn from the analysis are:

Firstly, based on the general linear regression model, a p-value of 0.05 indicates that the perception of usefulness does not have significant contributing factor to intention to adopt OGS.

Secondly, the majority (58.4%) of respondents agreed or strongly agreed that OGS is useful in terms of grocery shopping needs, however, 11.5% disagreed or strongly disagreed that OGS is useful, while 30.2% neither agreed nor disagreed that OGS is useful.

As PU is seen by the respondent as a non-significant factor; full analysis into the sub-factors in terms of order of importance is detailed below.

Figure 4.19 below shows the PU sub-factors ranked in the order of importance

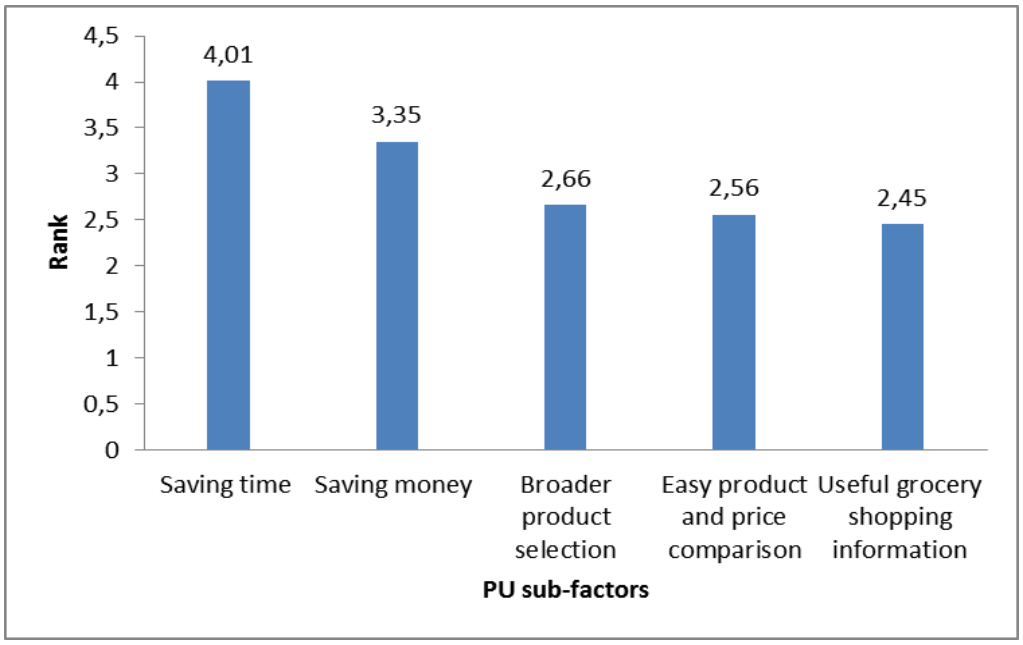


Figure 4.19: Perceived Usefulness (PU) sub-factors

As mentioned before, PU had five sub-factors which made up the PU construct. These sub-factors were ranked in order of importance. Figure 4.19 shows that saving time and money have a higher ranking of 4.01 and 3.35 respectively, meaning respondents consider these two factors to be more important than others. The least important factor in the ranking was the usefulness of grocery shopping information online with 2.45. Similarly, Kurnia and Chien (2003:219) identified time-saving as one of the important aspects of OGS. Consumers are able to order grocery merchandise and they are delivered in the comfort of their homes or a place of their choice. This gives consumers ample time to focus on other important tasks. Also, OGS saves consumers money (Datamonitor, 2010:6; Murphy, 2007:951). Usually, consumers incur costs such as parking, fuel/fares and impulse purchases which sometimes cause consumers to use money that they would have budgeted for other purposes. The

findings of this study illustrate the fact that saving time and money are more important aspects of the PU construct. This helps to draw conclusions that assist with crafting guidelines to improve OGS adoption.

The sub-factor "*OGS saves money*" had the highest ranking of 4.01, but to further understand how many respondents agreed or disagreed with the assertion that OGS saves money, the following Figure 4.20 illustrates these findings.

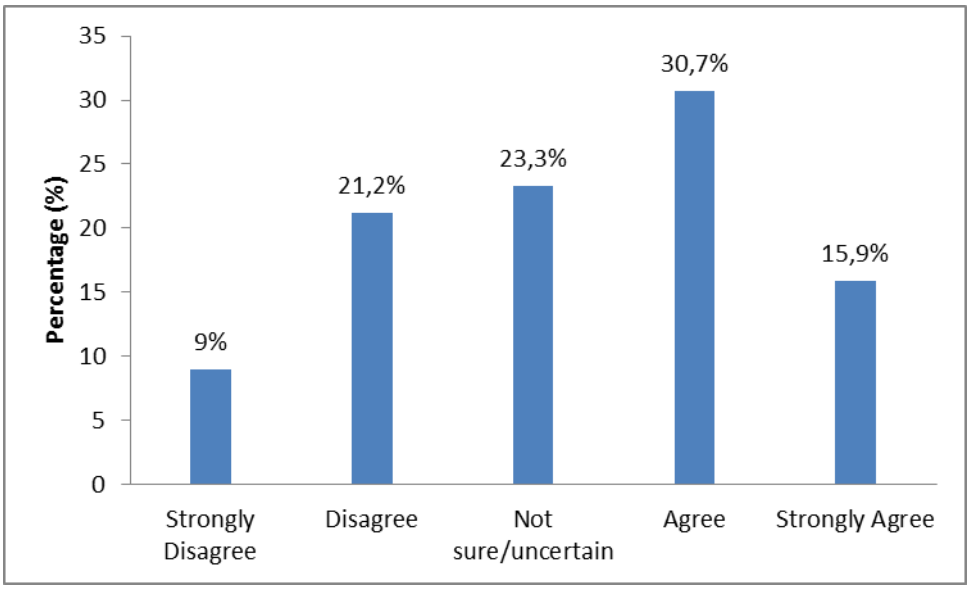


Figure 4.20: Respondents perception of saving money using OGS

Figure 4.20 above shows that 30.7% agreed that OGS saves money and 15.9% strongly agreed. On the contrary, 21.2% disagreed and 9.0% disagreed that OGS saves them money. The findings of Figure 4.20 show that the majority of respondents agree that OGS saves them money.

b) Perceived Ease of Use (PEOU)

The following questions were utilised to determine respondents' perception on the ease of doing OGS.

- It is (It will be) easy for me to do online grocery shopping
- It is (It will be) easy for me to learn how to do online grocery shopping.
- Browsing and searching for online grocery products is (will be) understandable and easy for me.
- It is (It will be) ease for me to use my banking details when doing online grocery shopping (such as using a credit card).

Table 4.4. below shows respondents' perception of the easiness of using OGS

Table 4.4: Perceived Ease of Use (PEOU)

		Behavioural intention to adopt OGS					
		No	Yes	Undecided	N=391	%	p-value
(PEOU)	Strongly Disagree	3	4	1	8	2	0.191
	Disagree	10	10	19	39	10	
	Not sure/uncertain	32	72	56	160	40.9	
	Agree	17	97	42	156	39.9	
	Strongly Agree	4	21	3	28	7.2	
Total		66	204	121	391	100	

Using the general linear regression model to determine the significance of PEOU on behavioural intention to adopt OGS, a p-value of 0.191 is the accepted range of significance. Therefore, PEOU does not have a significant influence on consumers' behavioural intention to adopt OGS.

Additionally, although PEOU does not have a significant influence on respondents' behavioural intention to adopt OGS, most respondents agreed or strongly agreed (47.1%) that OGS is easy to use. However, there is also a substantial percentage of respondents who neither agreed nor disagreed that OGS is easy to use (40.9%).

Figure 4.21 shows PEOU sub-factors.

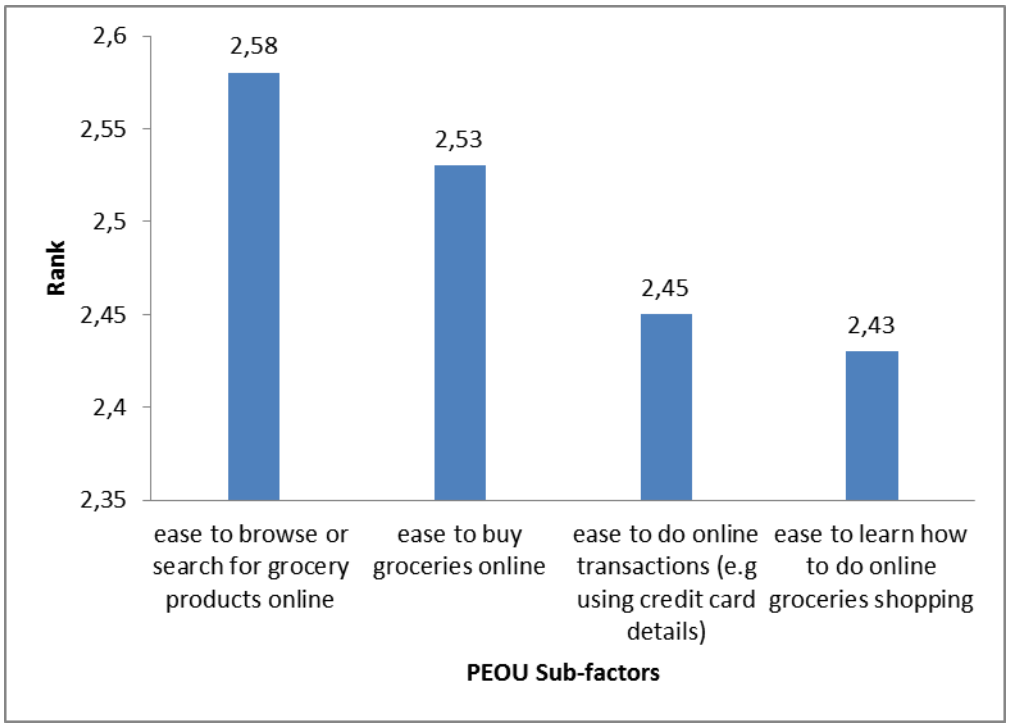


Figure 4.21: Perceived Ease of Use (PEOU) sub-factors

PEOU sub-factors were ranked in order of importance, as indicated in Figure 4.21. "*Easy to browse or search for groceries online*" was the most important factor followed by "*Easy to buy groceries online*". "*Easy to do online transactions*" and "*Easy to learn how to do OGS*" were the least important sub-factors with rankings of 2.45 and 2.43 respectively.

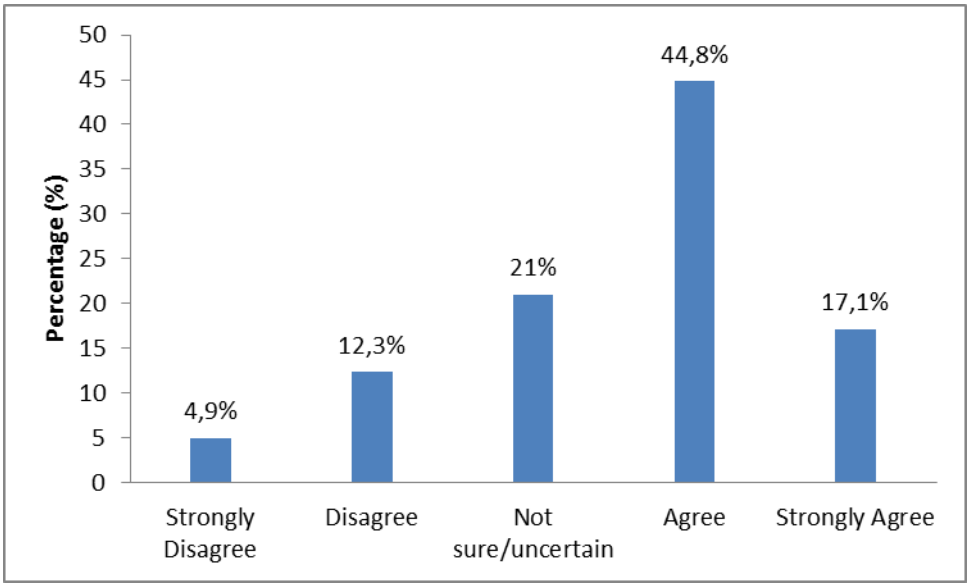


Figure 4.22: Ease to browse and search for groceries

Figure 4.22 shows respondents' level of agreement with the statement that it is easy to browse and search for groceries online. The majority of the respondents agreed (61.9%) while only 17.2% disagreed with the statement. Some respondents indicated that they were not sure (21%). Changchit (2006:177) asserted that most consumers browse for products

online and complete their purchase offline. This could substantiate the fact that most respondents agreed that it is easy to browse and search for products online.

c) Perceived Risk (PR)

In order to determine whether PR had a significant influence on behavioural intention to adopt OGS, the following questions were used:

- I am concerned with the payment security aspects of my online grocery shopping
- I am concerned with the privacy of my information I provide when using online grocery shopping
- I am concerned with the quality of the products delivered when ordering groceries online
- I am concerned about the order delivery time of my online grocery shopping

Table 4.5: Perceived Risk (PR)

		Behavioural intention to adopt OGS					
		No	Yes	Undecided	N=391	%	p-value
(PR)	Strongly Disagree	0	5	4	9	2.3	0.197
	Disagree	8	21	12	41	10.5	
	Not sure/uncertain	16	43	26	85	21.7	
	Agree	26	106	54	186	47.6	
	Strongly Agree	16	29	25	70	17.9	
Total		66	204	121	391	100	

PR is an independent variable against the behavioural intention to adopt OGS (dependent variable). The general linear regression model indicates that PR has a p-value of 0.197 which indicates that PR does not have a significant influence on behavioural intention to adopt OGS.

Furthermore, the results shown in Table 4.5 indicate that the majority of respondents agreed or strongly agreed (65.5%) that they perceive risk when they want to buy online and only 12.8% of respondents indicated that they do not perceive any risk with online shopping. Previous studies show that consumers are influenced by the risk they perceive, whether that risk actually exists (Chu & Li, 2008:214; Schiffman & Kanuk, 1997:183). This could be the reason why most respondents indicated that they perceive risk of shopping online.

Figure 4.23 shows the ranking of PR sub-factors

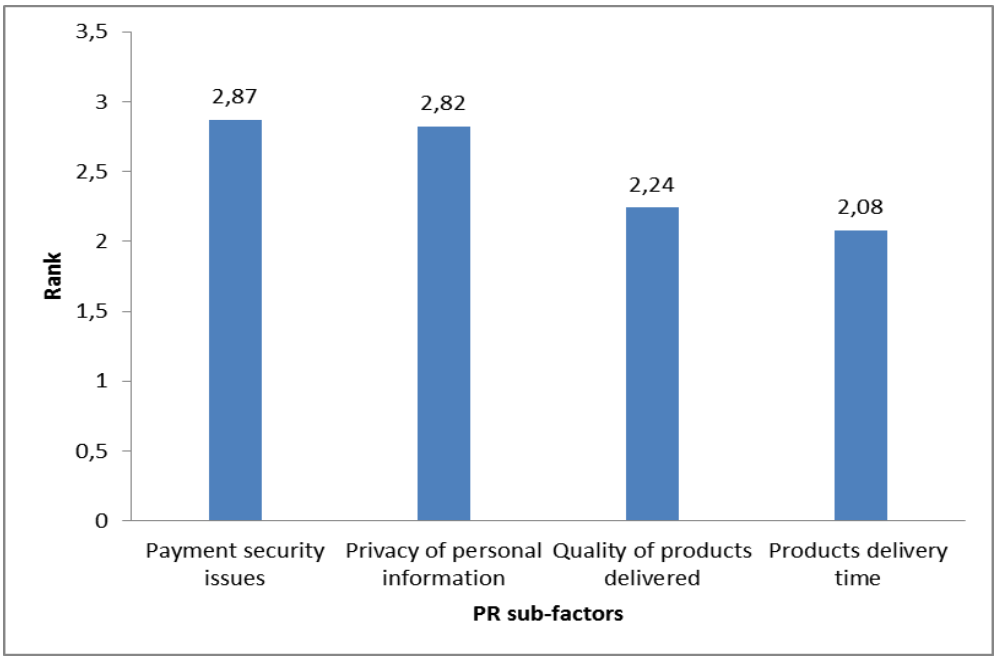


Figure 4.23: Perceived Risks (PR) sub-factors

As evidenced in Figure 4.23, respondents had high concerns over payment security issues and the privacy of their personal information. Although respondents had concerns over the quality of products delivered and product delivery time, these are relatively ranked lower among the PR issues. The findings of Figure 4.23 show that respondents show less confidence in their abilities to shield themselves from scams when purchasing online. The South African Banking Risk Information Centre (SABRIC) in 2013 indicated that SA has the second highest rates of Internet fraud and phishing in the world (Writer, 2014b). Consumers' concerns over payment security are a real challenge for online retail stores.

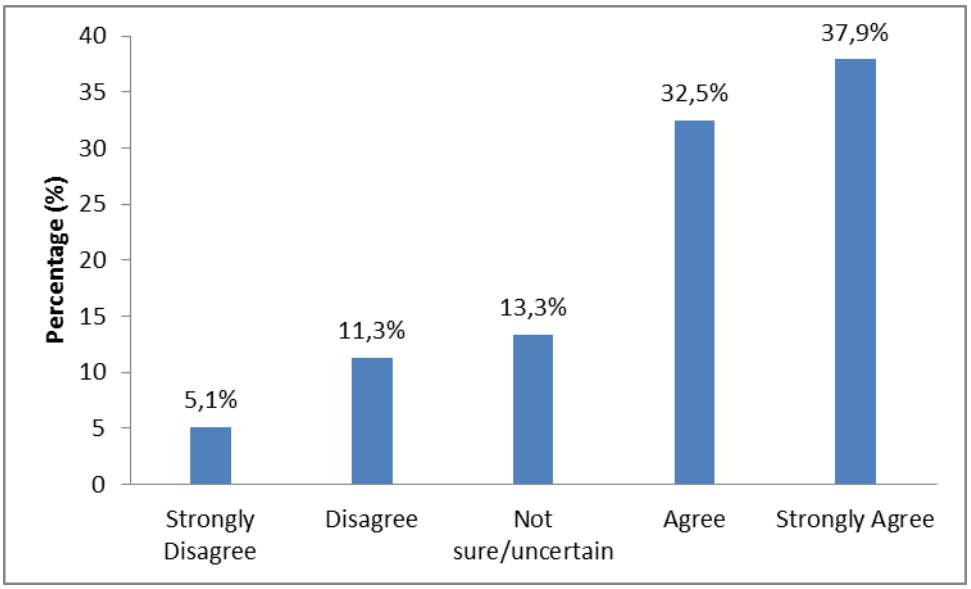


Figure 2.24: Payment security issues

A significant percentage (70.4%) of respondents agreed or strongly agreed that payment security issues are a concern on their intention to adopt OGS as shown in Figure 4.24. On the other hand, a meagre number of respondents disagreed (16.4%), while 13.3% indicated that they were not sure. Since respondents were most concerned with the payment security, the e-grocer model which online grocery retailers can adopt should allow consumers to pay for merchandise on delivery, as this will eliminate the risk of paying online.

d) Perceived Costs (PCo)

The following questions were used to determine respondents' perception of the cost of doing OGS.

- It is costly for me to access the Internet for my online grocery shopping
- Online grocery shopping delivery charges are high
- Online grocery products are expensive
- If I buy groceries online, bank charges are high

Table 4.6: Perceived Cost (PCo)

		Behavioural intention to adopt OGS			N=391	%	p-value
		No	Yes	Undecided			
(PCo)	Strongly Disagree	0	7	2	9	2.3	0.025
	Disagree	15	67	24	106	27.1	
	Not sure/uncertain	35	97	75	207	52.9	
	Agree	13	31	19	63	16.1	
	Strongly Agree	3	2	1	6	1.5	
Total		66	204	121	391	100	

Regression analysis between PCo and behavioural intention to adopt OGS shows that PCo (p-value=0.025) had a significant influence on behavioural intention to adopt OGS.

Moreover, the results from the Likert scale in Table 4.6 show that the majority of respondents (52.9%) neither agreed nor disagreed that they perceive cost of doing OGS to be high or low. However, 29.4% of respondents disagreed or strongly disagreed that they perceive costs of OGS to be high, while 17.6% of respondents agreed or strongly agreed that they perceive OGS cost to be too high.

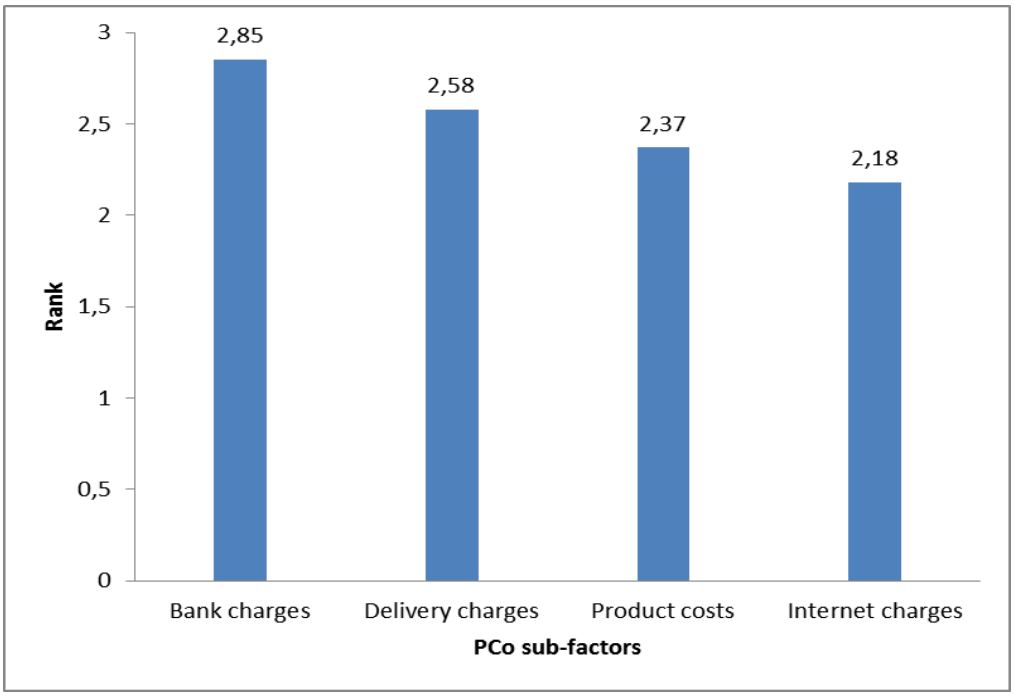


Figure 4.25: Perceived Cost (PCo) sub-factors

Further analysis of the sub-factors that make the PCo construct shows that respondents ranked bank charges as their concern when intending to shop groceries online according to Figure 4.25. Delivery charges were ranked second (2.58) and online grocery products costs are ranked third. Internet costs were ranked the least factor of concern when intending to shop groceries online.

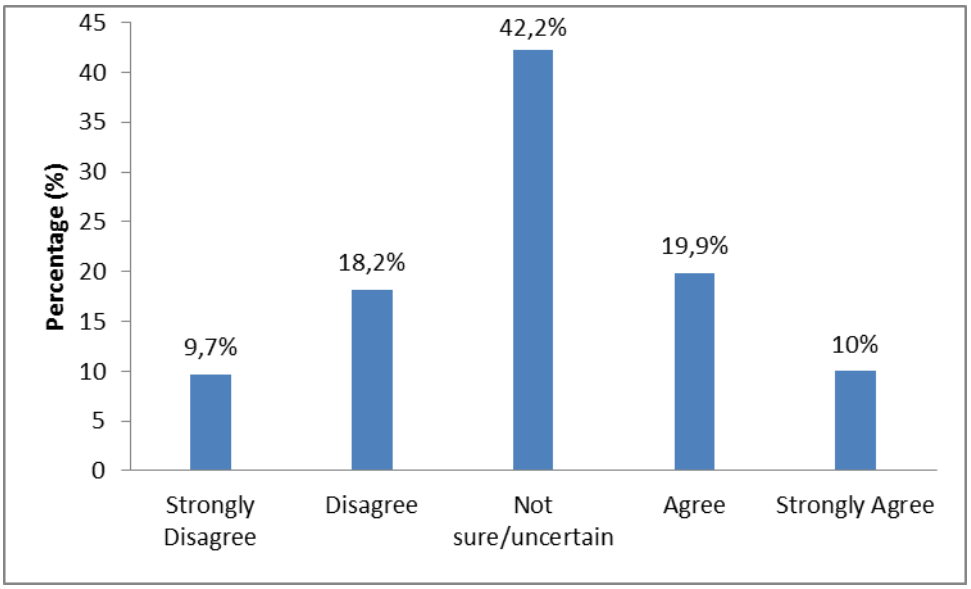


Figure 4.26 Bank charges

Although bank charges were ranked as the most important cost that respondents were concerned with, Figure 4.26 shows that most respondents (42.2%) were not sure whether bank charges are a concern when intending to buy groceries online. Respondents that agreed with the statement that bank charges are high when buying groceries online were

29.9%, while those who disagreed were 27.9%. Banks are one of the crucial intermediaries when consumers are transacting online.

e) Visibility (VIS)

The following statements were used in the Likert scale to determine VIS:

- I have seen friends using online grocery shopping
- I have seen my workmates/schoolmates buying groceries online
- I have seen people in my community using online grocery shopping
- I have seen my role models buying groceries online

The results from the survey about VIS are shown in Table 4.7.

Table 4.7: Visibility (VIS)

		Behavioural intention to adopt OGS			N=391	%	p-value
		No	Yes	Undecided			
(VIS)	Strongly Disagree	7	12	14	33	8.4	0.17
	Disagree	19	44	42	105	26.9	
	Not sure/uncertain	28	87	41	156	39.9	
	Agree	12	52	23	87	22.3	
	Strongly Agree	0	9	1	10	2.6	
Total		66	204	121	391	100	

According to the regression analysis, VIS does not have a significant influence on behavioural intention to adopt OGS. The p-value of 0.17 was above the accepted significance level of 0.05.

However, also from Table 4.7, most respondents (39.9%) indicated that they neither agreed nor disagreed about the OGS visibility. Some respondents (35.3%) indicated that OGS was visible while 24.9% disagreed.

The figure below shows VIS sub-factors analysis

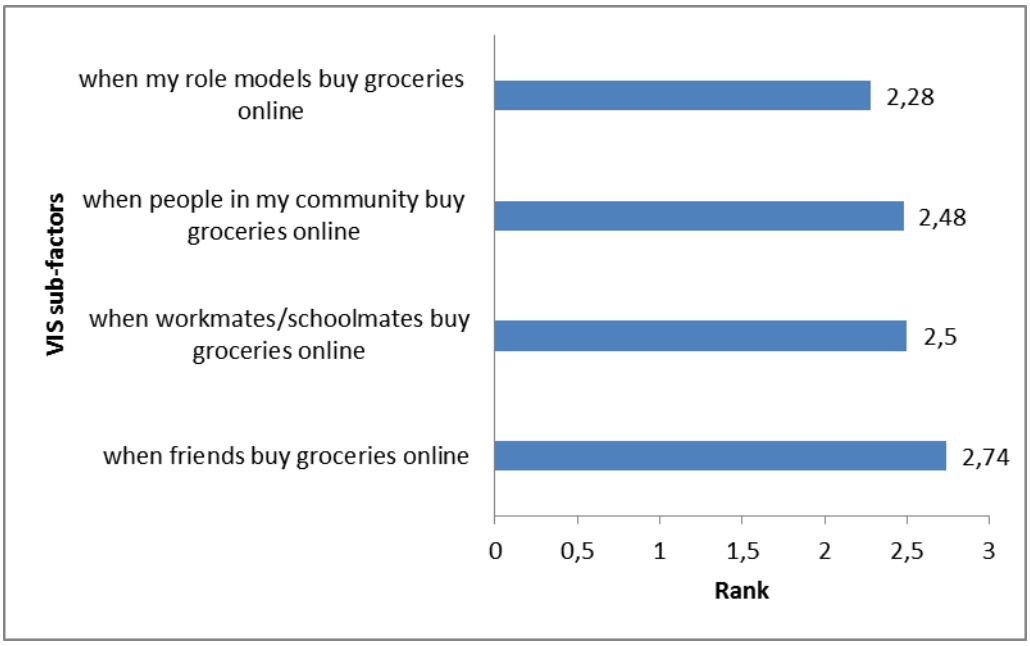


Figure 4.27: Visibility (VIS) sub-factors

Figure 4.27 ranks the VIS sub-factors as shown, when friends buy groceries online it seems to be the biggest motivation towards the use of OGS. Respondents also consider workmates/schoolmates as the second most important influencers on their intention to adopt OGS. Some sub-factors which are considered important are "*When people in my community buy groceries*" and "*When my role models buy groceries online*". Although these factors may have been ranked lower, they still hold some level of influence on intention to adopt OGS. Generally, friends are considered credible sources of information; hence respondents ranked them the biggest source of motivation for their intention to adopt OGS.

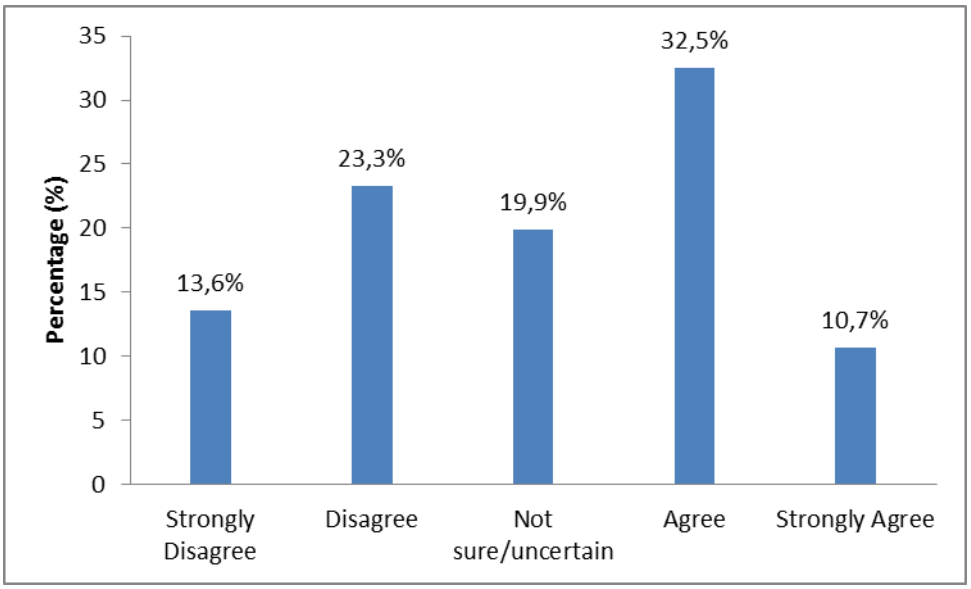


Figure 4.28: When friends buy groceries online

With reference to the statement that friends can motivate respondents to buy groceries online, Figure 4.28 shows that the majority of respondents agreed or strongly agreed

(43.2%), while some respondents disagreed or strongly disagreed (36.9%) and only 19.9% were uncertain. This shows that friends hold some level of influence on consumers' intention to use an innovation such as shopping groceries online.

f) Perceived Image Barrier (PIB)

PIB also plays a role on consumer intention to adopt OGS. The following two factors were considered adequate to measure respondents PIB towards OGS adoption:

- New technology is often too complicated to be useful
- I have the impression that OGS services are difficult to use

Table 4.8 highlights the results from the survey about respondents' PIB.

Table 4.8: Perceived Image Barrier (PIB)

		Behavioural intention to adopt OGS			N=391	%	p-value
		No	Yes	Undecided			
(PIB)	Strongly Disagree	10	31	10	51	8.4	0.533
	Disagree	20	66	42	128	26.9	
	Not sure/uncertain	20	62	39	121	39.9	
	Agree	12	36	25	73	22.3	
	Strongly Agree	4	9	5	18	2.6	
Total		66	204	121	391	100	

As shown in Table 4.8 p-value of 0.533 from the linear regression model indicates that PIB does not have a significant influence on behavioural intention to adopt OGS.

Table 4.8 also shows that most respondents (39.9%) neither agreed nor disagreed that they perceive OGS to be complicated to use. Other respondents (35.3%) disagreed or strongly disagreed that they perceive any difficulty with OGS, while 24.9% agreed or strongly agreed.

Figure 4.29 below shows the PIB sub-factors

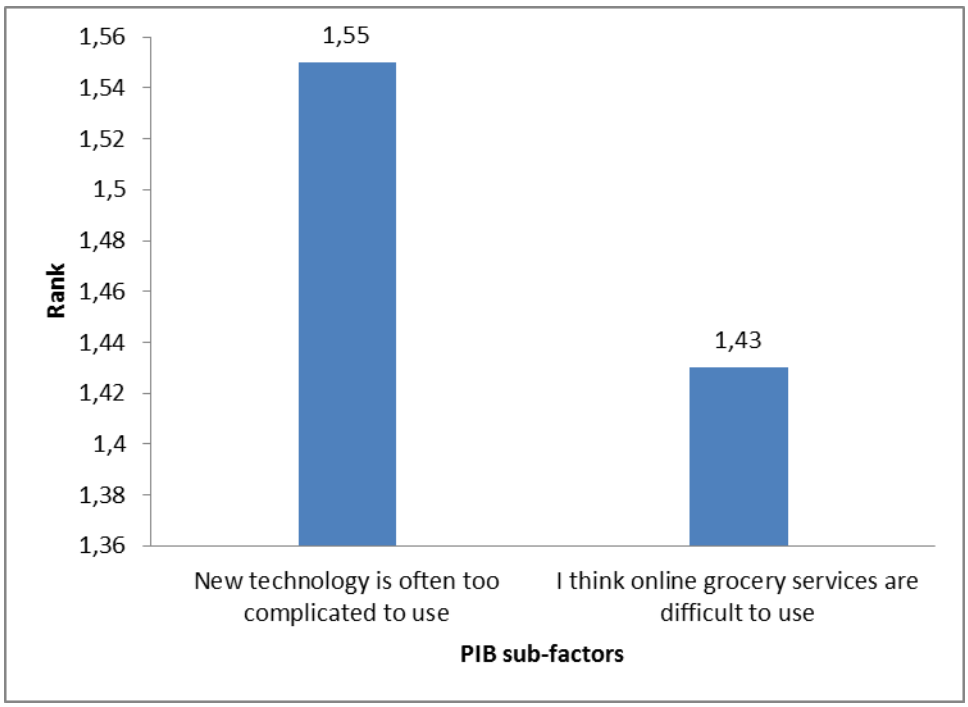


Figure 4.29: Perceived Image Barrier (PIB) sub-factors

The ranking of the two sub-factors that make up the PIB shows that respondents perceive that new technology is often complicated to use, and they indicated that online grocery services in comparison to the other factor is not difficult to use.

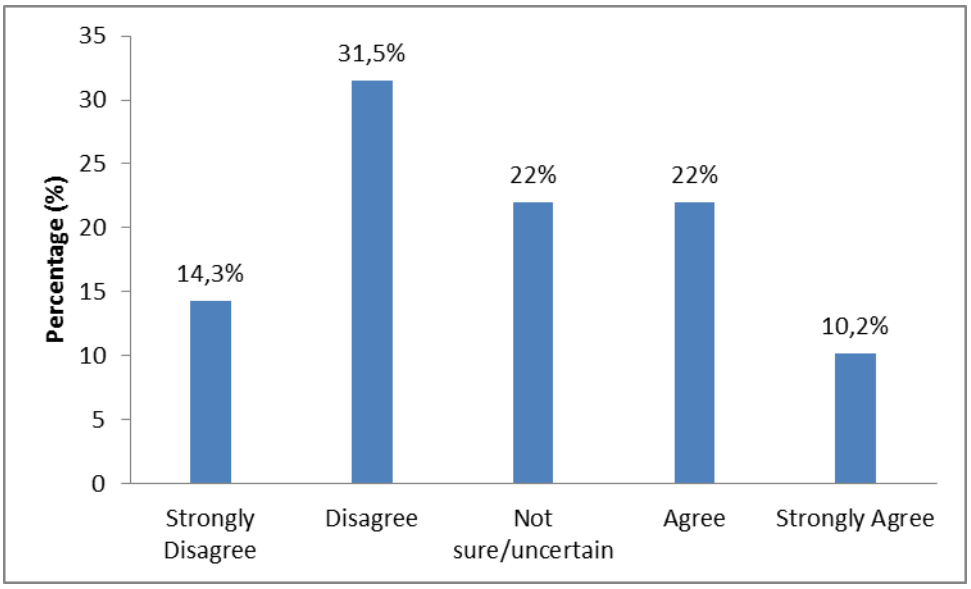


Figure 4.30: New technology is often too complicated to understand

Respondents ranked the notion that "*New technology is often too complicated to understand*" as the most important obstacle in their intention to adopt OGS. However further analysis indicates that most respondents disagreed or strongly disagreed (45.8%), while 32.2% agreed or strongly disagreed. This indicates that to some extent respondents perceive new

technology as not too complicated to understand or use. However, strategies for simplifying the online buying processes should be considered.

g) Social Attractiveness (SAT)

The following questions were used to measure SAT construct:

- I prefer to shop groceries at shopping malls than online because there is more entertainment
- Buying groceries at shopping malls is more convenient than OGS
- Shopping groceries at shopping malls is more appealing to me than OGS
- I feel more secure to shop groceries at shopping malls than online

Table 4.9 highlights SAT results from the survey

Table 4.9: Social Attractiveness (SAT)

		Behavioural intention to adopt OGS			N=391	%	p-value
		No	Yes	Undecided			
(SAT)	Strongly Disagree	1	7	1	9	2.3	0.275
	Disagree	2	34	8	44	11.3	
	Not sure/uncertain	13	53	28	94	24	
	Agree	25	75	58	158	40.4	
	Strongly Agree	25	35	26	86	22	
	Total	66	204	121	391	100	

Using the General Linear Regression model, SAT does not have a significant influence on behavioural intention to adopt OGS (p-value=0.275).

Furthermore, Table 4.9 shows that most respondents (62.4%) agreed and strongly agreed that doing shopping in malls appeals more than shopping online, while 13.6% disagreed or strongly disagreed. Other respondents (24%) indicated that they neither agreed nor disagreed that they are more driven to do shopping in malls than online.

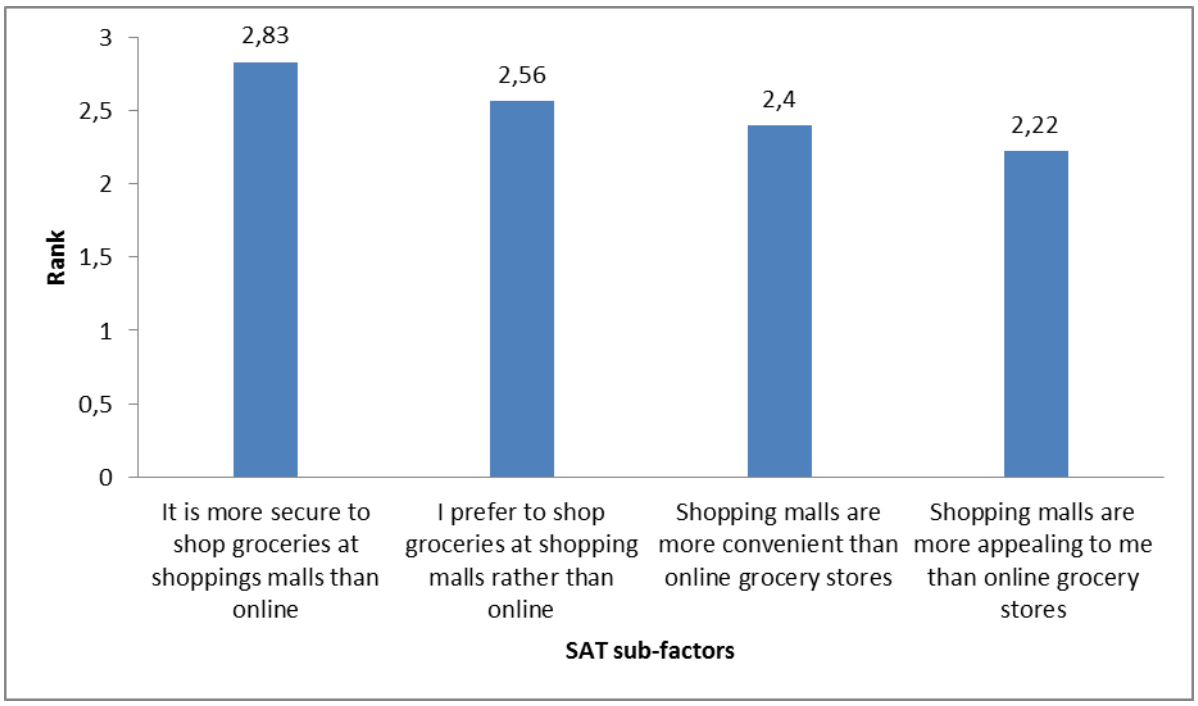


Figure 4.31: Social Attractiveness (SAT) sub-factors

Figure 4.31 above highlights that respondents consider the fact that shopping malls are more secure than online shops to be the most important (2.83). This sub-factor is followed by respondents' preference to shop groceries at shopping malls rather than online (2.56). The other sub-factors were ranked lower, for example, the sub-factor that says shopping malls are more convenient than online grocery stores were the second least important factor, while "*Shopping malls are more appealing to me than online grocery stores*" was the least important sub-factor.

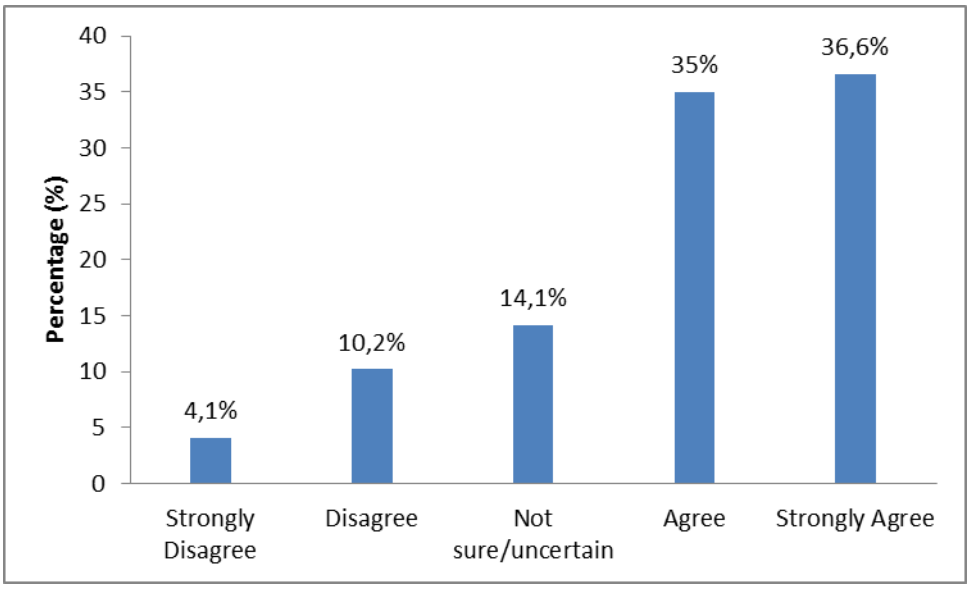


Figure 4.32: It is more secure to shop groceries at malls than online

An overwhelming majority of respondents indicated that they agreed or strongly agreed with the statement that shopping groceries at shopping malls is more secure than online (71.6%), while only 14.3% disagreed or strongly disagreed. Findings from a study by Rajagopal (2009) also indicated that consumers in developing countries are more driven to shop at malls, as they consider malls to be a one-stop shop. Moreover, consumers can interact physically with friends and colleagues while shopping, which virtual shopping does not offer.

4.6.1 Factors that indirectly influence consumers' behavioural intention to adopt OGS

PU and PCo were the only two factors that had a significant influence on consumers' behavioural intention to adopt OGS. However, the researcher further correlated the predetermined factors that influence consumers' behavioural intention to adopt OGS to identify factors that had an indirect influence on consumers' behavioural intention to adopt OGS.

Table 4.10 shows the correlation of factors that influence consumers' behavioural intention to adopt OGS.

Table 4.10: Correlation of factors that influence consumers' behavioural intention to adopt OGS

		PU	PEOU	PR	PCo	VIS	PIB	SAT
PU	Pearson Correlation		.562**		-.162**	.159**		
	p-value (2 tailed)		.000		.001	.002		
PCo	Pearson Correlation	-.162**	-.122*	.209**		.158**	.225**	.259**
	p-value (2 tailed)	.001	.027	.000		.002	.000	.000

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

As shown in Table 4.10, only the factors that have an indirect influence on consumers' behavioural intention to adopt OGS are shown. The highest correlation is between PU and PEOU of 0.562, p-value < 0.001. PU is negatively correlated with PCo, while PCo is negatively correlated with PEOU. A negative correlation shows an inverse relationship between the two constructs.

To clarify, there are factors that indirectly influence consumers' behavioural intention to adopt OGS. PEOU, PCo and VIS have a direct impact on PU, whereas PEOU, PR, VIS, PIB and

SAT have a direct impact on PCo. The factors that have an indirect influence on OGS adoption are essential for conclusions and recommendations to be made.

4.7 Relative importance of factors that influence consumers' behavioural intention to adopt OGS

PU and PCo were the only two factors that had a significant influence on consumers' intention to adopt OGS. These two factors were examined to determine their level of positive impact on behavioural intention to adopt OGS as shown in Table 4.11. Factors that had an indirect impact on consumers' behavioural intention to adopt OGS were not included in this analysis.

Table 4.11: Parameter estimates

Parameter	B	Std. Error	Wald Chi-Square	Ranking
(Intercept)	-0.935	0.1374	46.283	
Perceived Usefulness	0.820	0.1651	24.657	1
Perceived Cost	0.404	0.1774	5.178	2

From the table above, PU has the largest positive impact (b=0.820) compared to PCo with b=0.404. In a nutshell, PU is relatively more important than PCo according to Table 4.11.

4.8 Summary

Chapter 4 presented and analysed data from 391 questionnaire surveys. The researcher used SPSS version 23 and Microsoft Excel to illustrate the results of the survey. Findings from chapter 4 show that the majority of respondents were educated black females between the ages of 36 to 45 years and were unmarried. Moreover, most respondents (84.9%, n=391) had not bought groceries online at the time of the survey, while only 15.1% had adopted OGS. However, 52.0% of the survey respondents indicated that they will adopt OGS in the future.

Using the General Linear Regression Model only Perceived Usefulness (PU) and Perceived Cost (PCo) had a significant influence on behavioural intention to adopt OGS, while other factors such as PEOU, VIS, PR, PIB and SAT had an indirect influence on behavioural intention to adopt OGS. PU and PCo were also measured against each other to determine their relative importance and the results show that PU had more impact on behavioural intention to adopt OGS. The findings of this study are further clarified in the next chapter.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The foregoing chapter presented and analysed of data. This chapter resumes by providing summaries of preceding chapters, followed by highlighting key findings from the study. Based on the literature review and findings, the researcher then provides conclusions and recommendations. This chapter also outlines the limitations of the current study.

5.2 Synopses of the study

This section highlights what has been covered in the previous chapters.

- **Chapter 1**

Chapter 1 was the foundation of the study. The introduction, background and the problem statement for the study were highlighted in this chapter. The research questions and objectives were also stated in this chapter. Additionally, chapter 1 described the subject and geographical delimitations of the study. Chapter 1 concludes with an illustrative outline of the chapters that were to be covered.

- **Chapter 2**

Chapter 2 was a review of literature from secondary data sources such as peer-reviewed journals, books, newspapers and other credible sources. The main themes that guided literature gathering were e-commerce, online shopping, online grocery shopping (OGS) and technology acceptance models.

Firstly, the researcher reviewed e-commerce literature to understand the significance of e-commerce in this era. Comparisons were made between the developed and developing world, and as evidenced in the literature, developing nations are still lagging in e-commerce developments, however e-commerce markets are considered to be more efficient and unparalleled to traditional markets.

Secondly, the emergence of online retailing was discussed. Reviewed literature shows that online retailing is continuously growing, although it will not substitute traditional retailing, but it is a significant complementary retailing option.

Thirdly, OGS-related literature was reviewed. Most of OGS studies had a Eurocentric view, and limited studies were done in developing countries such as South Africa (SA). Within the online retailing segment, online grocery retailing was still struggling to rise from the niche market that it is to a mass market. Typically, online shoppers were young adults with high income or young married couples who are time impoverished. Moreover, various reasons which literature suggests being a cause of OGS slow growth were discussed in this chapter. The researcher deduced from the literature the need to understand factors that can enhance

the adoption of OGS. A limited version of the Technology Adoption Model (TAM) was used to determine the factors that influence consumers' behavioural intention to adopt OGS. Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Perceived Risk (PR), Perceived Cost (PCo), Visibility (VIS), Perceived Image Barrier (PIB) and Social Attractiveness (SAT) were independent variables while behavioural intention to adopt OGS was the dependent variable.

- **Chapter 3**

The procedures and methods that were used in this research study were discussed in this chapter. Questionnaires were used as data gathering instruments, and 455 surveys were distributed, while 391 of them were usable. SPSS version 23 and Microsoft Excel were used to analyse and interpret the data which was presented in chapter 4.

- **Chapter 4**

The data that was gathered from respondents was presented and analysed in this chapter. All the results in this chapter were presented in accordance with the research objectives of this study. Tables, bar graphs and pie-charts were utilised to enhance the presentation and analysis of data.

5.3 Key findings of the study

The aim of the study was to determine factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan Area, SA. Using the data that was collected from the 391 respondents, the following were the key findings.

- **Research objective 1**

This objective was to identify the demographic profile of adopters and non-adopters of OGS in the Cape Metropolitan Area, SA.

The objective was met and from the findings adopters of OGS were 15.1% and non-adopters were 84.9% of the total respondents (N=391). Table 5.1 shows the demographic characteristics of adopters and non-adopters of OGS.

Table 5.1 tabularises the majority of respondents in their categories as adopters (n=59) and non-adopters (n=332). The findings show that most OGS adopters were black respondents between the ages of 26 and 45 years. Moreover, the majority adopters were single parents of which a significant had post school qualifications. In contrast, the majority of OGS non-adopters were Asian female respondents who were older than 60 years with a doctoral degree or a high school educational qualification.

Table 5.1: Adopters and non-adopters of OGS

	Adopters (N=59)	**Non-adopters (N=332)**
Gender	• Males (25.8%)	• Females (80%)
Marital status	• Single parent (31.9%) • Married (28%)	• Single (81.5%)
Age category	• 26-45 (26.8%) • 46-60 (25%)	• 18-25 (85.7%) • Older than 60 (100%)
Education level	• Bachelor degree (36.4%) • Master's degree (40%)	• High school or less (89%) • Doctorate (89%)
Race	• Black (24.3%) • White (24.1%)	• Asians (92.9%) • Coloured (79.5%)

- **Research objective 2**

To determine factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan Area, SA.

This objective was met; only PCo had a significant influence on consumers' intention to adopt OGS, while PU, PEOU, PR, VIS, PIB and SAT had no significant influence on consumers' behavioural intention to adopt OGS.

Further analysis of these factors highlighted that some factors had an indirect influence on consumers' behavioural intention to adopt OGS, for example PEOU, PCo and VIS had an indirect influence on behavioural intention to adopt OGS through PU, while PU, PEOU, PR, VIS, PIB and SAT had an indirect influence on behavioural intention to adopt OGS through PCo.

- **Research objective 3**

To ascertain the order of importance of factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan area, SA.

This research objective was met. PCo was the only factor that had an influence on consumers' behavioural intention to adopt OGS. Therefore, PCo had ($b = 0.404$) is relatively more important than any other factors.

- **Research objective 4**

To develop guidelines for improving online grocery shopping adoption in the Cape Metropolitan area.

Recommendations are provided in section 5.5. These recommendations are based on the key findings of the research and literature review. Most of the recommendations are aimed at providing guidelines for improving the growth of OGS adoption.

5.4 Conclusion

The purpose of this study was to determine factors that influence consumers' behavioural intention to adopt OGS in the Cape Metropolitan Area, SA. All the research objectives were met. Only PCo was the main factor that had a significant influence on consumers' behavioural intention to adopt OGS, however, PU, PEOU, PR, VIS, PIB and SAT had an indirect influence on consumers' behavioural intention to adopt OGS. The study also discovered that there were fewer adopters than non-adopters of OGS in the Cape Metropolitan Area, SA.

5.5 Recommendations

The following recommendations concern strategies and methods that can be used by online grocery managers and e-marketers in order to improve the adoption of OGS; that is, turning those who only browse online into shoppers, and further attract more consumers to use the OGS method:

- The findings show that PCo had a significant influence on consumers' behavioural intention to adopt OGS. Online grocery managers and e-markets should craft marketing communication strategies that emphasise the usefulness of shopping grocery online while also depicting cost effectiveness of OGS. To convey the message to the consumers that OGS is useful, advertisers should ensure that potential users are made aware that OGS saves them money and time. Online grocery retailers should be able to deliver ordered merchandise timeously and their online merchandise should have competitive prices. Furthermore, online grocery retailers should be able to stock more merchandise so that consumers have a wide variety and deep assortment of groceries and should avoid limiting the merchandise selection on their online grocery stores. Online grocery retailers should also ensure that relevant information about grocery products sold online is available. As indicated in the literature consumers nowadays are more informed and rational, providing detailed information about the merchandise helps them make informed decisions during their information search prior to purchase. Additionally, online grocery websites should enable product and price comparison between different brands or stores. The online grocery retailers should have a website that is usable on all Internet-enabled gadgets such as smartphones, tablets and computers. This will assist consumers to conveniently use their Internet-enabled gadgets to compare and buy groceries online.

- In order to satisfy price-conscious consumers, online grocery retailers should implement an e-grocer model that is cost-effective. Consumers should be able to understand cost savings that accrue from buying groceries online rather than offline. Delivery charges should be reasonable, such that they do not deter consumers from using online grocery stores.

- Online grocery retail websites should be able to balance easiness to navigate, while also being visually attractive to consumers. The use of demonstration videos attached to the home page of the websites can be useful for novice online shoppers and can also boost their confidence. The websites can also use prompt suggestions that guide the shopper on how to select and pay for the merchandise. Websites should also be attractive to consumers such that it becomes worthwhile to navigate.

- There are additional ways of encouraging consumers to accept and use OGS. Online grocery retailers should use an instant chat and toll-free number as this will help consumers who encounter challenges with their shopping activity to quickly get assistance. This can also be complemented with frequently asked questions (FAQ) that provide answers to questions that consumers often ask. The FAQ concept is costless and comes as self-help for consumers which grocery retailers can utilise.

- Privacy and security of consumer information were identified in the literature to be a great concern for consumers, however, this study revealed that PR has an indirect influence on consumers' behavioural intention to adopt OGS. However, the researcher suggests that online grocery retailers should ensure that their websites are not imitated by bogus websites such that consumers end up using the wrong website. Websites should also be encrypted with software that is difficult to penetrate by hackers; this will help to protect consumer data. Retailers can either use in-house developers or outsource their website design so that they can constantly monitor suspicious activities on the websites. This is so as to safeguard their website. Writer (2014b) identified that online fraud and phishing are rife in SA; this requires online grocery managers to be knowledgeable about online security and ways of protecting consumers from being victims, especially when attempting to use their grocery websites. Furthermore, online grocery retailers should ensure that products are delivered at the right quality and time. Grocery retailers should do a quality check of merchandise selection and picking, to ensure that the consumer gets the right product of the right quality. This also helps to build word-of-mouth about the grocery retailer.

- Visibility of online grocery shopping websites should be enhanced. The findings indicated that consumers are more inclined to shop groceries online if their friends use this method of shopping. Since friends are considered one of most the credible sources of information, online grocery websites should allow consumers to recommend and comment about their products and services on their websites. This strategy can be further extended to social media, where the online grocery store should have an account on social platforms such as Facebook and Twitter. This will help consumers see what other users or friends have commented about the grocery products and service, thereby further enhancing visibility. Delivery vans should also have the logo of the online grocery retailer such that when the vans are delivering in various areas consumers are able to see, and might be attracted to use, the OGS option. Visibility can also be enhanced using incentives such as sales promotions. The grocery retailer can offer delivery discounts or offer bonus points if the consumer buys groceries online. This might stir the awareness and encourage consumers to patronise the OGS.

- Online grocery retailers should also use a return policy that allows consumers to return products bought online without questions asked. The consumer can be informed that they can return the products upon delivery if they are not satisfied with the products. The literature reviewed indicated that consumers cannot satisfy their sensory stimuli when buying grocery online (Datamonitor, 2010:7, Morganosky & Cude, 2000:19 & Lin, 2007:433). Consumers cannot touch, taste or smell the products during their online purchase, so to offset this disadvantage of shopping groceries online, the store can use a return policy. This assures the consumers that the retailer has strong confidence in their brand thereby motivating the consumers to use the online grocery store.

- Information about products and prices should be matched if the grocery store has both an online and a traditional brick and mortar store. This will help consumers not to be confused when they browse online and decide to complete their purchase offline or vice versa. However, if there are differing prices between online and offline, the retailer should clearly state it.

Overall, the recommendations aim to turn a browser into a shopper and to attract more consumers to use the online service. However, the capacity of online grocery retailers to meet the demand is not fully known.

5.6 Suggestions for further research

This study used a quantitative research approach. Further studies can be done with a qualitative disposition; this will allow an in-depth understanding of why consumers are not adopting OGS. This can be done using focus groups or interviews.

This study was only done in the Cape Metropolitan Area, SA. Further studies can be done in other parts of SA to validate and enable better generalisation of findings.

Further studies can also focus on the prospects on OGS, that is, what online grocery retailers envision in the future and what the online shopper will be like.

This research only covered a gap based on consumer perspectives, which leaves an opening for studies using qualitative data on the online grocery retailers' perspectives. Further research studies can focus on the challenges that online grocery retailers are encountering and how they can solve these challenges.

REFERENCES

Acosta, K.K. 2008. Online payment processes. http://webuser.hs-furtwangen.de/~heindl/ebte-08-ss-Online-Payment-Process-Kathleen.pdf. [10 September 2015].

Agarwal, J. and Wu, T. 2015. Factors influencing growth potential of E-commerce in emerging economies: An institution-based N-OLI framework and research propositions. *Thunderbird International Business Review*, *57*(3):197-215.

Agresti, A. 2007*. An introduction to categorical data analysis.* 2nd ed*.* Hoboken, New York: Wiley.

Agwu, M.E. & Murray, J.P. 2014. Drivers and inhibitors to e-Commerce adoption among SMEs in Nigeria. *Journal of Emerging Trends in Computing and Information Sciences*, 5(3):192-199.

Ahmad, A.E.M.K. 2012. Attractiveness Factors Influencing Shoppers' Satisfaction, Loyalty, and Word of Mouth: An Empirical Investigation of Saudi Arabia Shopping Malls. *International Journal of Business Administration*, 3(6):101-112.

AlGhamdi, R., Nguyen, A. & Jones, V. 2013. A study of influential factors in the adoption and diffusion of B2C e-commerce. *International Journal of Advanced Computer Science and Applications*, 4(1):89-94.

Al-nawayseh, M.K., Alnabhan, M.M., Al-Debei, M.M. & Balachandran, W. 2013. An adaptive decision support system for last mile logistics in e-commerce: a study on online grocery shopping. *International Journal of Decision Support System Technology (IJDSST)*, 5(1):40-65.

Aylott, R. & Mitchell, V. W. 1999. An exploratory study of grocery shopping stressors. *British Food Journal*, 101(9):683-700.

Awa, H.O., Ojiabo, O.U. and Emecheta, B.C. 2015. Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs. *Journal of Science & Technology Policy Management*, *6*(1):76-94.

Banerjee, N. 2012. A study on the attractiveness dimensions of shopping malls- An Indian perspective. *International journal of business and social science*, 3(2):102-111.

Blanche, M.T., Durrheim, K. & Painter, D. 2006. Research in practice: Applied methods for the social sciences. UCT Press: Cape Town.

Bless, C. & Higson-Smith, C. 2000. *Fundamentals of social research methods: An African perspective.* 3rd ed. Cape Town: Juta.

Botha, J., Bothma. C. & Geldenhuys, J. 2008. *Managing e-commerce in business.* 2nd ed. Cape Town: Juta

Boyer, K.K. & Hutt, G.T.M. 2005. Customer behaviour in the online ordering application: A decision scoring model. *Decision sciences,*36(4):569-598.

Bra, C. 2013.*Online groceries in South Africa: Far from booming* http://www.supermarket.co.za/news_articles.asp?ID=3971 [19 April 2014].

Bryman, A. & Bell, E. 2011. *Business Research Methods.* 4th ed. New York: Oxford University Press.

Cameron, S. & Price, D. 2009. *Business research methods: A practical approach.* London: Chartered Institute of Personnel and Development.

Celik, H. 2016. Customer online anxiety withing the Unified Theory of Theory of Acceptance and Use Technology (UTAUT). *Asian Pacific Journal of Marketing and Logistics*. 28(2):278-307.

Changchit, C. 2006. Consumer perceptions of online shopping*. Issues in information systems*. 7(2):177-181.

Chipp, K. & Ismail, Z. 2008. *e-Commerce: A Southern African perspective*. Cape Town: Van Schaik.

Cho, Y.C. 2011. Analyzing online customer dissatisfaction toward perishable goods. *Journal of Business Research*, 64(11):1245-1250.

Chu, J., Arce-Urriza, M., Cebollada-Calvo, J. J. & Chintagunta, P. K. 2010. An empirical analysis of shopping behavior across online and offline channels for grocery products: the moderating effects of household and product characteristics. *Journal of Interactive Marketing*, 24(4):251-268.

Chu, K. K. & Li, C. H. 2008. A Study of the Effect of Risk-reduction Strategies on Purchase Intentions in Online Shopping. *IJEBM*, 6(4):213-226.

Clemes, M.D., Gan, C. & Zhang, J., 2014. An empirical analysis of online shopping adoption in Beijing, China. *Journal of Retailing and Consumer Services*, 21(3):364-375.

Close, A.G. & Kukar-Kinney, M., 2010. Beyond buying: Motivations behind consumers' online shopping cart use. *Journal of Business Research*, 63(9):986-992.

Cooper, D.R. & Schindler, P.S. 2003.*Business research methods*. 8th ed. New York: McGraw-Hill.

Cooper, D.R. & Schindler, P.S. 2011. *Business research methods*. 11th ed. New York: McGraw-Hill.

Cox, R & Brittain, P. 2004. *Retailing an introduction.5th ed*. Rearson education. Harlow

Croker, A.D. 2005. Customer satisfaction in the online grocery shopping market. Unpublished Master's Thesis, UNISA. http://hdl.handle.net/10500/149 [05 April 2014].

Datamonitor. 2010. The future of online grocery shopping. DMCM4735. June 2010.

Davies, F.D.1989. Perceived Usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*,13(3):319-340.

Davis, F.D. 1986. *A technology acceptance model for empirically testing new end-user information systems: Theory and results* (Doctoral dissertation, Massachusetts Institute of Technology).

Davis, F.D. & Venkatesh, V. 1996. A critical assessment of potential measurement biases in the technology acceptance model: three experiments. *International journal of human and computer studies*, 45(1):19-45.

De Kervenoael, R., Elms, J. & Hallsworth, A. 2014. Influencing online grocery innovation: Anti-choice as a trigger for activity fragmentation and multi-tasking. *Futures*, 62:155-163.

Delaney-Klinger, K., Boyer, K.K. & Frohlich, M. 2003. The return of online grocery shopping: a comparative analysis of Webvan and Tesco's operational methods. *The TQM magazine*, 15(3):187-196.

Denscombe, M. 2011. *Ground rules for social research: Guidelines for good practice.* 2nd ed. McGraw-Hill: New York.

Dereratu, A.M., Rangaswamy, A. & Wu, J. 2000. Consumer choice behaviour in online and traditional supermarkets: The effects of brand name, price, and other search attributes. *International journal of research in marketing,* 17(1):55-78.

Douglas, K. 2013. *Online grocery shopping is still not big in South Africa, but retailers should prepare*. http://www.howwemadeitinafrica.com/online-grocery-shopping-still-not-big-in-south-africa-but-retailers-should-prepare/23439/ [5 February 2014].

Dutta, S. & Segev, A. 1999. Business transformation on the Internet. *European Management Journal*, 17(5):466-76.

Duval, Y. 2001. Emerging Business Models in the e-grocery Industry. In *Proceedings of the Third European Conference of EFITA, Montpellier, France,* 427-432.

Elahi, S. and Hassanzadeh, A. 2009. A framework for evaluating electronic commerce adoption in Iranian companies. *International Journal of Information Management*, *29*(1): 27-36.

El-Adly, M.I. 2007. Shopping malls attractiveness: a segmentation approach. *International journal of retail & distribution management*, 35(11):936-950.

Ellis-Chadwick, F., Doherty, N. F. & Anastasakis, L. 2007. E-strategy in the UK retail grocery sector: a resource-based analysis. *Managing Service Quality: An International Journal*, 17(6):702-727.

eMarketer. 2016. Retail and e-commerce. *World-wide retail e-commerce sales will reach $1.915 trillion this year*. https://www.emarketer.com/Article/Worldwide-Retail-Ecommerce-Sales-Will-Reach-1915-Trillion-This-Year/1014369 [Accessed 01.03.17]

Fishbein, M. and Ajzen, I.1977. Belief, attitude, intention, and behavior: An introduction to theory and research.

Flick, U. 2011. *Introducing research methodology: A beginner's guide to doing research project.* London: Sage Age.

Gan, L., He, S., Huang, T. & Tan, J. 2007. A comparative analysis of online grocery pricing in Singapore.*Electronic commerce research and applications*. 6(4):474-483.

Gao, T. & Deng, Y. 2012. June. A study on users' acceptance behavior to mobile e-books application based on UTAUT model. *IEEE International Conference on Computer Science and Automation Engineering, Beijing, 22-24 June 2012:* 376-379.

George, J.F. 2004. The theory of planned behavior and Internet purchasing. *Internet research*, 14(3):98-212.

Geuens, M., Brengman, M. & S'Jegers, R. 2003. Food retailing, now and in the future. A consumer perspective. *Journal of Retailing and Consumer Services*, 10(4):241-251.

Goethals, F., Leclercq-Vandelannoitte, A. & Tütüncü, Y. 2012. French consumers' perceptions of the unattended delivery model for e-grocery retailing. *Journal of Retailing and Consumer Services*, 19(1):133-139.

Goldstuck, A. 2012. *Internet matters: The quiet engine of the South African economy.* www.worldwideworx.com. [06 June 2014].

Gong, W., Stump, R. L. & Maddox, L.M. 2013.Factors influencing consumers` online shopping in China. *Journal of Asia business studies*,7(3): 214-230.

Gravetter, F.J. & Forzano, L.B. 2009. *Research methods for the behavioral sciences.* 3rd ed. Belmont: Wardsworth.

Gregorio, D.D., Kassicieh, S.K. & Neto, R.D.G. 2005. Drivers of e-business activity in developed and emerging markets. *IEEE Transactions on Engineering Management*, 52(2):155-166.

Gurleen, K. 2012. Consumer's perception towards online shopping-the case of Punjab'. *International Journal of management & information technology*, 1(1):1-6.

Hand, C., Dall'Olmo Riley, F., Harris, P., Singh, J., & Rettie, R. 2009. Online grocery shopping: the influence of situational factors. *European Journal of Marketing,*43(9/10):1205-1219.

Hansen, T. 2008. Consumer values, the theory of planned behaviour and online grocery shopping. *International Journal of consumer studies*, 32(2008):128-137.

Heikkilä, J., Kallio, J., Saarinen, T. & Kristiina Tuunainen, V. 1999. EC of groceries for elderly and disabled: a comparison of alternative service models. *Information Technology & People*, 12(4):389-402.

Hernandez, B., Jimenez, J. & José Martín, M. 2009. Adoption vs acceptance of e-commerce: two different decisions. *European Journal of Marketing,* 43(9/10):1232-1245.

Hoojisma, A. 2014.*The online grocery shopping revolution*. http://www.brandba.se/blog/2014/4/17/online-grocery-shopping-revolution. [18 April 2014].

Hoyer, W.D., MacInnis, D.J. & Pieters, R. 2013. *Consumer Behavior*. 6th ed. Ohio: South Western Cengage Learning.

Hsu, C.L., Chuan-Chuan Lin, J. & Chiang, H.S. 2013. The effects of blogger recommendations on customers' online shopping intentions. *Internet Research*, 23(1):69-88.

Huang, Y. & Oppewal, H. 2006. Why consumers hesitate to shop online: An experimental choice analysis of grocery shopping and the role of delivery fees. *International Journal of Retail & Distribution Management.* 34(4/5):334-353.

Hubpages. 2014. *Pros and Cons of online grocery shopping: The Internet grocery shopper*. http://betheaglescliffe.hubpages.com/hub/Pros-and-Cons-of-Online-Grocery-Shopping. [24 April 2014].

Iglesias-Pradas, S., Pascual-Miguel, F., HernáNdez-GarcíA, Á. & Chaparro-PeláEz, J. 2013. Barriers and drivers for non-shoppers in B2C e-commerce: A latent class exploratory analysis. *Computers in Human Behavior,* 29(2):314-322.

Jashnani, P. 2014. *The rise of online grocery retail*. IN4079. India: USDA

Javadi, M. H. M., Dolatabadi, H. R., Nourbakhsh, M., Poursaeedi, A. & Asadollahi, A. R. 2012. An analysis of factors affecting on online shopping behavior of consumers. *International Journal of Marketing Studies*, 4(5):81.

Jeong, B. & Yoon, T.E. 2013. An empirical investigation on consumer acceptance of mobile banking services. *Business and Management Research,* 2(1):31-40.

Jiang, L., Yang, Z. & Jun, M., 2013. Measuring consumer perceptions of online shopping convenience. *Journal of Service Management*, 24(2):191-214.

Kacen, J.J., Hess, J.D. & Chiang, W.Y.K. 2013. Bricks or clicks? Consumer attitudes toward traditional stores and online stores. *Global Economics and Management Review*, 18(1):12-21.

Kämäräinen, V., Småros, J., Holmström, J. & Jaakkola, T. 2001. Cost-effectiveness in the e-grocery business. *International Journal of Retail & Distribution Management*, 29(1):41-48.

Keh, H.T. & Shieh, E. 2001. Online grocery retailing: Success factors and potential pitfalls. *Business horizons*, 44(4): 73-83.

Keisidou, E., Sarigiannidis, L. & Maditinos, D. 2011. Consumer characteristics and their effect on accepting online shopping, in the context of different product types. *International journal of business science and applied management*, 6(2):31-51.

Kempiak, M. & Fox, M.A. 2002. Online grocery shopping: Consumer motives, concerns, business models. *First Monday*, 7(9).

Khaskheli, A. and Jun, Y. 2016. A Review on the Importance of E-Commerce for SMEs in Pakistan. *Journal on Innovation and Sustainability. RISUS ISSN 2179-3565*, *7*(1).

Koponen, A. 2006. E-commerce, Electronic Payments. *Innovation in Telecommunications*: 26-31.

Kurnia, S. & Chien, A.J. 2003. The Acceptance of online grocery shopping.*16th Bled eCommerce Conference: eTransformation.* Bled, 9-11 June 2003. Slovenia: The Institute: 219-233.

Kurnia, S. 2008. *Exploring e-commerce readiness in China: The case of the grocery industry.* Proceedings of the 41st Hawaii International Conference on System Sciences - 2008.

Kurnia, S. and Peng, F. 2010. *Electronic commerce readiness in developing countries: the case of the Chinese grocery industry.* INTECH Open Access Publisher.

Lawrence, E., Newton, S., Corbitt, B., Lawrence, J., Dann, S. & Thanasankit, T. *2003. Internet commerce digital models for business.* 3rd ed. Milton: John Wiley & Sons.

Lawrence, J. E. & Tar, U. A. 2010. Barriers to E-commerce in Developing Countries. *Information, society and justice journal*,3(1):23-35.

Lee, H.H. & Chang, E. 2011. Consumer attitudes toward online mass customization: An application of extended technology acceptance model. *Journal of Computer-Mediated Communication*, 16(2):171-200.

Levy, M. & Weitz, B.A. 2009. *Retailing Management* . 7th ed. New York: McGraw-Hill.

Levy, M., Weitz, B.A. & Grewal, D. 2014. *Retail Business Management*. 9th ed. New York: McGraw-Hill.

Li, F. & Yousept, I. 2004. Online supermarkets: emerging strategies and business models in the UK. *BLED 2004 Proceedings*: 30.

Lian, J. & Yen, D.C. 2014. Online shopping drivers and barriers for older adults: Age and gender differences. *Computers in human behaviour,*37:133-143.

Lian, J., Liun, H. & Liu, I. 2012. Applying innovation resistance theory to understand user acceptance of online shopping: The moderating effect of different product types.*Computer technology and application*, 3(2):188-193.

Lim, H., Heilig, J. K., Ernst, S., Widdows, R. & Hooker, N. H. 2004. Tracking the evolution of e-grocers: A quantitative assessment. *Journal of Food Distribution Research*, 35:66-82.

Lin, H. 2007. Predicting consumer intentions to shop online: An empirical test of competing theories. *Electronic commerce research and applications,* 6(2):433-442.

Local government. n.d. *The local government handbook: A complete guide to municipalities in South Africa.* http://www.localgovernment.co.za/metropolitans/view/6/city-of-cape-town-metropolitan-municipality. [10 September 2014].

Luarn, P. & Lin, H. 2005.Toward an understanding of the behavioral intention to use mobile banking.*Computers in human behavior*, 21(6):873-891.

McClatchey, J., Cattell, K. & Michell, K. 2007. The impact of online retail grocery shopping on retail space: a Cape Town case study. *European journal of Marketing*, 25(3/4):115-126.

McCullagh, P & Nelder, J.A. 1989. *Generalized linear model*. 2nd ed. London: Chapman & Hall/CRC.

Morganosky, M.A. & Cude, B.J. 2000. Consumer response to online grocery shopping. *International journal of retailing & distribution management*, 28(1):17-26.

Mosteller, J., Donthu, N. & Eroglu, S. 2014. The fluent online shopping experience. *Journal of Business Research*, 67(11):2486-2493.

Mouton, J. 1996. *Understanding social research.* Pretoria: Van Schaik.

Murphy, A. J. 2007. Grounding the virtual: The material effects of electronic grocery shopping. *Geoforum*, 38(5):941-953.

MWPVL International. 2014. *Finally, an E-Grocery Business Model that makes economic sense.* http://www.mwpvl.com/html/e-grocery_business_model_.html. [6 October 2015].

Nakamoto, S. 2008. Bitcoin: A peer-to-peer electronic cash system. http://www.cryptovest.co.uk/resources/Bitcoin%20paper%20Original.pdf [01 February 2016]

Nirmal, D. 2008.*Online retailing: the virtual shopping experience*. Mumbai.Wellingkar.

Pantano, E & Pietro, L. D. 2012. Understanding consumer's acceptance of technology-based innovations in retailing. *Journal of technology management and innovation,* 7(4):1-19

Perea y Monsuwé, T., Dellaert, B. G. & De Ruyter, K. 2004. What drives consumers to shop online? A literature review. *International journal of service industry management*, 15(1):102-121.

Punakivi, M. & Saranen, J. 2001. Identifying the success factors in e-grocery home delivery. *International Journal of Retail & Distribution Management,* 29(4):156-163.

Rahman, M.S., Khan, A.H. & Islam, N. 2013. An empirical study on revealing the factors influencing online shopping intention among Malaysian consumers. *Journal of research and social science research*, 1(1):9-18.

Raijas, A. 2002. The consumer benefits and problems in the electronic grocery store. *Journal of retailing and consumer services,* 9(2):107-113.

Rajagopal. 2009. Growing shopping malls and behavior of urban shoppers. *Journal of retail & leisure property*, 8(2):99-118.

Ram, S. 1987. A model of innovation resistance. *Advances in consumer research*. 14 (208-212). http://www.acrwebsite.org/search/view-conference-proceedings.aspx?Id=6688. [12 August 2014].

Ramanathan, R., Ramanathan, U. & Hsiao, H.L. 2012. The impact of e-commerce on Taiwanese SMEs: Marketing and operations effects. *International Journal of Production Economics*, 140(2):934-943.

Richard, M.O., Chebat, J.C., Yang, Z. & Putrevu, S. 2010. A proposed model of online consumer behavior: Assessing the role of gender. *Journal of Business Research*, 63(9):926-934.

Ring, L. J. & Tigert, D. J. 2001. Viewpoint: the decline and fall of Internet grocery retailers. *International Journal of Retail & Distribution Management,* 29(6):264-271.

Roy Dholakia, R. & Uusitalo, O. 2002. Switching to electronic stores: consumer characteristics and the perception of shopping benefits. *International Journal of Retail & Distribution Management*, 30(10):459-469.

Salehi, M. 2012. Consumer buying behavior towards online shopping stores in Malaysia. *International Journal of Academic Research in Business and Social Sciences*. 2(1):393-402.

Saprikis, V., Chouliara, A. & Vlachopoulou, M. 2010. Perceptions towards online shopping: Analyzing the Greek University students' attitude. *Communications of the IBIMA*, 2010.

Schiffman, L.G. & Kanuk, L.L. 1997. *Consumer behaviour.* 6th ed. Pennyslavia. Prentice Hall.

Schneider, G. 2013. *E-business.* 10th ed. New York: South-Western Cengage Learning.

Seitz, C. 2013. *E-Grocery as New Innovative Distribution Channel in the German Food Retailing*. Proceedings of the Management, Knowledge and Learning International Conference 2013: 125-133. Bangkok: ToKnowPress.

Sekaran, U. & Bougie, R. 2013. *Research methods for business.* 6th ed. West Sussex: John Wiley & Sons.

Sharma, P., Nair, V. & Jyotishi, A. 2014. Patterns of Online Grocery Shopping in India: An Empirical Study. In *Proceedings of the 2014 International Conference on Interdisciplinary Advances in Applied Computing*: 29.

Shea, T. P. & Zivic, L. J. 2011. Online Food Retailing: Is Market Segmentation The Key To Success?. *Journal of Business & Economics Research (JBER),* 1(5).

Sheth, J.N., Newman, B.I. & Gross, B.L. 1999. Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2):159-170.

Simonoff, J.S. 2003. *Analyzing categorical data*. New York: Springer.

Singh, V. 2011. Online grocery shopping in India – some early findings http://www.aaramshop.com/reports/warc/download.php?file=Online_grocery_shopping_in_India__some_early_findings.pdf. [06 October 2015].

South Africa. 2009. Consumer Protection Act. Notice 68 of 2008. *Government Gazette,* 526(32186).

Statistics, South Africa. 2012. Census 2011. *Statistics South Africa*. http://www.statssa.co.za [21 July 2014].

Tanskanen, K., Yrjölä, H. & Holmström, J. 2002. The way to profitable Internet grocery retailing-six lessons learned. *International Journal of Retail & Distribution Management*, 30(4):169-178.

Taylor, S. & Todd, P. 1995. Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International Journal of Research in Marketing*, 12(2):137-155.

Terblanche, N .1998. *Retail Management*. Cape Town: Oxford University Press.

Thietart, R.A., Allard-Poesi, F., Angot, J., Baumand, P., Charreire, S., Donada, C., Durieux, F., Ehlinger, S., Forgues, B., Girod-Seville, M., Drucker-Godard, C., Grenier, C., Ibert, J., Josserand, E., Marechal, C., Mbengue, A., Milano, P., Perret, V., Royer, I., Vandangeon-Derumez, I., Xuereb, J. & Zarlowski, P. 2001. *Doing management research, a comprehensive guide*. London: Sage Publications.

Thomas White International. 2011. *Emerging market spotlight*. http://www.thomsawhite.com [01 June 2014].

Tiernan, B. 2000. *E-tailing*. Chicago: Dearborn Financial.

Trevinal, A.M. & Stenger, T. 2014. Toward a conceptualization of the online shopping experience. *Journal of Retailing and Consumer Services*, 21(3):314-326.

UNCTAD. 2015. *Information economy report 2015: unlocking the potential of e-commerce for developing countries.* New York: UNCTAD.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D., 2003. User acceptance of information technology: Toward a unified view. *MIS quarterly*, pp.425-478.

Verhoef, P.C. & Langerak, F. 2001.Possible determinants of consumers` adoption of electronic grocery shopping in the Netherlands. *Journal of Retailing and Consumer Services*, 8(5):275-285.

Vijayasarathy, L.R. 2003.Predicting consumer intentions to use online shopping the case for an augmented technology acceptance model. *Information and Management*, 41(6):747-762.

Walters, D.M., Toase, C.M., Hong, P. & Meekel, M. 2005. *A survey into consumer experiences and attitude towards online grocery shopping in the UK*. AIDIS International conference on WWW/Internet 2005.

Wang, Y., Wang, Y., Lin, H. & Tang, T. 2003. Determinants of user acceptance of internet banking: an empirical study. *International Journal of Service Industry Management*, 14(5):501-518.

Wilcox, P.A. & Gurau, C. 2003. Business modelling with UML: the implementation of CRM systems for online retailing*. Journal of Retailing and Consumer Service,* 10(3):181-191.

Writer, S. 2014. *Internet fraud and phishing cost SA R2.2 billion*. http://businesstech.co.za/news/general/68212/sa-internet-fraud-and-phishing-costs-r2-2-billion/ [16 November 2015].

Writer, S. 2014. *More South Africans are buying groceries online.* http://businesstech.co.za/news/internet/54885/more-south-africans-are-buying-groceries-online/ [27 June 2014].

Writer, S. 2015. Online vs In-store grocery shopping prices in SA. https://businesstech.co.za/news/lifestyle/97911/online-vs-in-store-grocery-shopping-prices-in-sa/ [13 February 2017]

Wyman. O 2014. *The future of online grocery, threats and opportunities*. http://www.oliverwyman.com/insights/publications/2014/oct/the-future-of-online-grocery.html#.Vhy-aS7vPIU [13 November 2015].

Yrjola, H. 2001. Physical distribution considerations for electronic grocery shopping. *International Journal of Physical Distribution & Logistics Management*, 31(10): 746-761.

Zaied, A. N. H. 2012. Barriers to e-commerce adoption in Egyptian SMEs*. International Journal of Information Engineering and Electronic Business,* 4(3):9.

Zaini, Z.M.M., Ramli, N., Ghani, F.A., Samsudan, A., Hamid, M., Jusoff, K., Ngali, N., Rahmat, N., Khalid, K. & Musa, M. 2011. Online grocery shopping: The effect of time availability on Malaysian consumer preferences. *World Applied Sciences Journal*: 60-67.

Zhou, L., Dai, L. & Zhang, D. 2007. Online shopping acceptance model-A critical survey of consumer factors in online shopping. *Journal of Electronic Commerce Research*, 8(1):41-62.

Zhu, L. & Thatcher, S. M. 2010. National information ecology: a new institutional economics perspective on global e-commerce adoption. Journal of Electronic Commerce Research, 11(1):53-72.

Zikmund, W., Babin, B., Carr, J. & Griffin, M. 2013. *Business Research Methods*. 8thed. Ohio: Southern-Western Cengage Learning.

Zorayda, R.A. 2003. *E-commerce and E-business.* E-Asian Task Force. Manila: UNDP.

APPENDIX A: QUESTIONNAIRE SURVEY

Title: CONSUMER ADOPTION OF ONLINE GROCERY SHOPPING IN THE CAPE METROPOLITAN AREA, SOUTH AFRICA.

Dear Sir/Madam

I kindly ask you to participate in this research study. The core purpose of this research is to determine factors that influence consumers' behavioural intention to adopt online grocery shopping in the Cape Metropolitan Area, South Africa.
It takes about 7 to 10 minutes to complete the whole questionnaire. Some of the questions require you to answer some demographic information. However, this information will only be used in the research and will not be made available to anyone. You may omit any questions you do not want to answer.

Participating in this research is on voluntary basis. There will not be any benefits accruing from your participating in this research study. You are also allowed to withdraw from answering the questionnaire at any point if you wish to do so.

If you have any questions pertaining to your participation in this study, you can contact me at (078 328 9259 or email: 210226943@mycput.ac.za.) or my supervisor Professor Jacobus Steyn at 0214603017 or email: steynj@cput.ac.za, or my co-supervisor Mr Jonathan Aspeling at 0214603411 or email aspelingj@cput.ac.za.

Researcher

Tichaona Buzy Musikavanhu
Masters Student: Retail Business Management
Cape Peninsula University of Technology
Cell number: 078 328 9259
Email: 210226943@mycput.ac.za / tichbuzy@gmail.com

Section A

Please indicate the extent to which of agree or disagree with the following statements (Please use **X** to indicate your answer**)**						
		Strongly Disagree	**Disagree**	**Not sure/uncertain**	**Agree**	**Strongly Agree**
	Perceived Usefulness					
1.1	Online grocery shopping (will) provide me with a broader selection of grocery products.					
1.2	Online grocery shopping online (will) save me money					
1.3	Online grocery shopping (will) save me time					
1.4	Online groceries shopping (will) enable me to compare product and price of grocery merchandise.					
1.5	The Internet (will) give me access to useful grocery shopping information					
	Perceived ease of use					
2.1	It is (It will be) ease for me to do online groceries shopping					
2.2	It is (It will be) ease for me to learn how to do online grocery shopping.					
2.3	Browsing and searching for online grocery products is (will be) understandable and ease for me.					
2.4	It is (It will be) ease for me to use my banking details when doing online groceries shopping (e.g. using a credit card).					
	Perceived Risk					
3.1	I am concerned with the payment security aspects of my online grocery shopping					
3.2	I am concerned with the privacy of my information provided when using online grocery shopping					
3.3	I am concerned with the quality of the products delivered when ordering groceries online					
3.4	I am concerned about my order delivery time of my online grocery shopping					
	Perceived Cost					
4.1	It is costly for me to access the Internet for my online grocery shopping					
4.2	Online grocery shopping delivery charges are high					
4.3	Online grocery products are expensive					
4.4	If I buy groceries online, bank charges are high					
	Visibility					
5.1	I have seen friends using online grocery shopping					
5.2	I have seen my workmates/schoolmates buying groceries online					
5.3	I have seen people in my community using online grocery					

	shopping					
5.4	I have seen my role models buying groceries online					
	Perceived Image Barrier					
6.1	New technology is often too complicated to use					
6.2	I have the impression that online grocery shopping services are difficult to use					
	Social Attractiveness					
7.1	I prefer to shop groceries at shopping malls than online, because there is more entertainment					
7.2	Buying groceries at shopping mall is more convenient than online grocery shopping					
7.3	Shopping groceries at shopping mall is more appealing to me than online grocery shopping					
7.4	I feel more secure to shop groceries at shopping mall than online					

Section B: [Please rank the following in the order of importance]

8	**What is more important for you when buying groceries online** (Rank between 5 to 1; 1 least important and 5 most important)	
8.1	Saving time	
8.2	Saving money	
8.3	Broader product selection	
8.4	Useful grocery shopping information	
8.5	Easy product and price comparison	

9	**What is more important for you when buying groceries online** (Rank between 4 to 1; 1 least important and 4 most important)	
9.1	Ease to shop groceries online	
9.2	Ease to learn how to shop groceries online	
9.3	Ease to do online transactions	
9.4	Ease to browse or search for grocery products online	

10	**What are you concerned about when buying groceries online** (Rank between 4 to 1; 1 least concerned and 4 most concerned)	
10.1	Payment security issues	
10.2	Privacy of personal information	
10.3	Products delivery time	
10.4	Quality of products delivered	

11	**Which costs are you concerned with when buying groceries online** (Rank between 4 to 1; 1 least important and 4 most important)	
11.1	Internet costs	
11.2	Delivery costs	
11.3	Bank charges	
11.4	Product costs	

12.	**What will motivate you to buy groceries online** (Rank between 4 to 1; 1 least motivator and 4 most motivator)	
12.1	When my friends buying groceries online	
12.2	When my workmates/schoolmates buying groceries online	
12.3	When people in my community using online grocery shopping	
12.4	When my role models buying groceries online	

13	**What are the barriers for you not to do online groceries shopping?** (Rank between 2 to 1; 1 least barrier and 2 most barrier)	
13.1	New technology is often too complicated to use	
13.2	I have the impression that online grocery services are difficult to use	

14	**What determines your decision either to shop groceries online or offline** (Rank between 4 to 1; 1 least important and 4 most important)	
14.1	I prefer to shop groceries at shopping malls rather than online	
14.2	Shopping malls are more convenient than online grocery stores	
14.3	Shopping malls are more appealing to me than online grocery stores	
14.4	I feel more secure to shop at shopping malls than online grocery stores	

15	**Which device do you use to access the Internet (**More than one answer is applicable, tick the appropriate box)							
15.1	Smartphone		15.2	Tablet		15.3	Laptop	
15.4	PC		15.5	Other (specify)…….				

16	**Have you ever bought groceries on the Internet (**Tick the appropriate box**)**	16.1	Yes		16.2	No	

17	**Will you buy groceries online in the future (**only one answer is applicable**)**							
17.1	Yes		17.2	No		17.3	Undecided	

18	**Please indicate which of the following products or services you have bought online before** (More than one answer is applicable, tick the appropriate box)							
18.1	Books		18.2	Consumer electronics		18.3	Clothing & Apparel	
18.4	Flight/bus Tickets		18.5	N/A or Other (Please indicate)……				

Section C

19	**What is your gender?**	19.1	Female		19.2	Male		

20	**What is your marital status? (**Please tick with an X the correct box**)**							
20.1	Single		20.2	Married		20.3	Single Parent	
20.4	Other: (Please specify)……							

21	**Which age category do you belong to? (**Please indicate with an X, the correct box**)**	
21.1	Under 18	
21.2	18 – 25	
21.3	26 – 45	
21.4	46 – 60	

21.5	Older than 60	

22	**Please indicate your level of education,** indicate with an **X**, the correct box	
22.1	High school or less	
22.2	Diploma	
22.3	Bachelor	
22.4	Masters	
22.5	Doctorate	

23	**Which race do you belong to (**Please indicate in the correct box using **X)**										
23.1	Black		23.2	Coloured		23.3	White		23.4	Asian	23.5	other

Thank you

APPENDIX B: ONLINE VS IN-STORE PRICES

(Pick n Pay: Online Vs In-store prices)

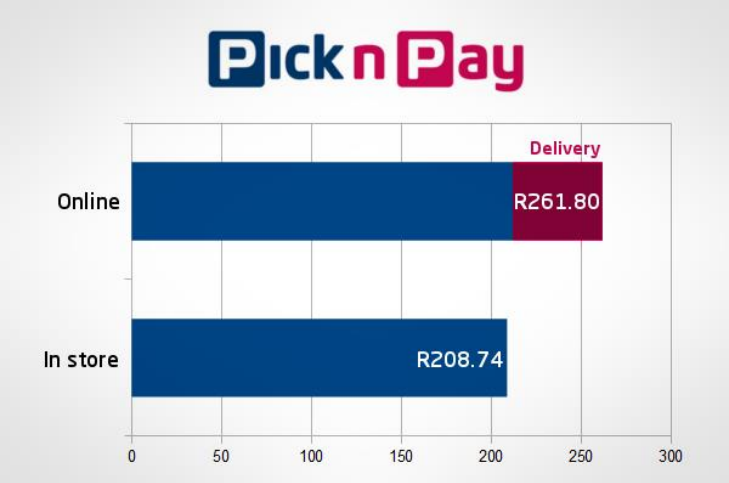


Table below (Pick n Pay: In-store price vs Online prices)

Product	In-store price	Online price	Price difference
Apples	R16.50	R16.50	
Bread	R6.50	R6.99	+R0.49
Cabbage	R10.99	R10.99	
Coca Cola	R13.50	R15.99	+R2.49
Eggs	R12.95	R12.95	
Flour	R32.99	R30.99	-R2.00
Maize	R17.49	R17.48	-R0.01
Margarine	R17.95	R16.95	-R1.00
Milk	R22.79	R22.79	
Rice	R18.29	R18.29	
Sugar	R23.90	R26.99	+R3.09
Tea	R14.89	R14.89	
Delivery (minimum)	–	R50.00	+R50.00
Total	R208.74	R261.80	+R53.06

(Woolworths Food: online vs in-store prices)

Table below (Woolworths Food: online vs in-store prices)

Product	In-store price	Online price	Price difference
Apples	R14.99	R21.99	+R7.00
Bread	R11.95	R13.45	+R1.50
Cabbage	R12.99	R12.99	
Coca Cola	R15.95	R15.95	
Eggs	R20.99	R20.99	
Flour	R13.95	R14.95	+R1.00
Maize	R18.95	R19.95	+R1.00
Margarine	R23.99	R23.99	
Milk	R27.95	R27.95	
Rice	R22.95	R24.95	+R2.00
Sugar	R29.95	R29.95	
Tea	R15.95	R15.95	
Delivery	–	R50.00	+R50.00
Total	R230.56	R293.06	R62.50

Appendix C: SPSS version 23 output

Correlations

		PU	PEOU	PR	PCo	VIS	PIB	SAT
Perceived Usefulness (PU)	Pearson Correlation	1	.562**	.087	-.163**	.159**	-.084	-.063
	p-value (2-tailed)		.000	.087	.001	.002	.096	.213
	N	391	391	391	391	391	391	391
Perceived Ease of Use (PEOU)	Pearson Correlation	.562**	1	.096	-.112*	.221**	-.137**	-.086
	p-value (2-tailed)	.000		.058	.027	.000	.007	.089
	N	391	391	391	391	391	391	391
Perceived Risk (PR)	Pearson Correlation	.087	.096	1	.209**	.037	.066	.282**
	p-value (2-tailed)	.087	.058		.000	.467	.195	.000
	N	391	391	391	391	391	391	391
Perceived Cost (PCo)	Pearson Correlation	-.163**	-.112*	.209**	1	.158**	.225**	.259**
	p-value (2-tailed)	.001	.027	.000		.002	.000	.000
	N	391	391	391	391	391	391	391
Visibility (VIS)	Pearson Correlation	.159**	.221**	.037	.158**	1	.073	.006
	p-value (2-tailed)	.002	.000	.467	.002		.150	.913
	N	391	391	391	391	391	391	391
Perceived Image Barrier (PIB)	Pearson Correlation	-.084	-.137**	.066	.225**	.073	1	.298**
	p-value (2-tailed)	.096	.007	.195	.000	.150		.000
	N	391	391	391	391	391	391	391
Social Attractiveness (SAT)	Pearson Correlation	-.063	-.086	.282**	.259**	.006	.298**	1
	p-value (2-tailed)	.213	.089	.000	.000	.913	.000	
	N	391	391	391	391	391	391	391

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

*. Correlation is significant at the 0.05 level (2-tailed).

APPENDIX D: ETHICAL CERTIFICATE

Cape Peninsula University of Technology

P.O. Box 1906 • Bellville 7535 South Africa •Tel: +27 21 6801680 • Email: saliefa@cput.ac.za
Symphony Road Bellville 7535

Office of the Chairperson **Research Ethics Committee**	**Faculty:** **BUSINESS**

At a meeting of the Research Ethics Committee on 17 June 2015, **Ethics Approval**

was granted to MUSIKAVANHU, Tichaona Buzy (210226943) **for research activities Related**

to the MTech/DTech: MTech: RETAIL BUSINESS MANAGEMENT

at the Cape Peninsula University of Technology

Title of dissertation/thesis:	Factors that limit the adoption of online grocery shopping in the Cape Metropolitan area, South Africa. Supervisor: Prof JN Steyn & Mr JM Aspeling

Comments:

Decision: APPROVED

Signed: Chairperson: Research Ethics Committee	**17 June 2015** **Date**
Signed: Chairperson: Faculty Research Committee	**Date**

Clearance Certificate No | 2015FBREC263

APPENDIX E: CONSENT LETTER

Pick n Pay

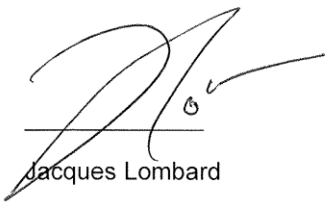
TO WHOM IT MAY CONCERN

I Jacques Lombard, in my capacity as Senior Franchise Business Manager, at Pick n Pay Western Cape Region Franchise Division, give consent in principle to allow Tichaona Musikavanhu, a student at the Cape Peninsula University of Technology, to collect data in this company as part of his M.Tech (Retail Business Management) research. The student has explained to me the nature of his research and the nature of the data to be collected.

This consent in no way commits any individual staff member and/or franchise to participate in the research, and it is expected that the student will get explicit consent from any participants, including the franchise owner. I reserve the right to withdraw this permission at any time in the future.

In addition, subject to my prior approval after having read the relevant documents, the company's name may be used as indicated below.

	Thesis	**Conference paper**	**Journal article**	**Research poster**
Yes	X	X	X	X
No				



Jacques Lombard

Senior Franchise Business Manager

Pick n Pay Franchise Division

Western Cape Region

05 March 2015

Date

Pick n Pay Retailers Proprietary Limited Registration No. 1973/004739/07

Registered Office: Pick n Pay Office Park, 101 Rosmead Avenue, Kenilworth, 7708, Cape Town PO Box 23087, Claremont, 7735, South Africa
Tel (021) 658 -1000 Fax (021) 797- 0314 (Int. + 27) Website www.picknpay.co.za

Kensington Office: Pick n Pay Office Park, 2 Allum Road, Kensington, 2094, Gauteng PO Box 908, Bedfordview, 2008, South Africa
Tel (011) 856-7000, Fax (011) 856-8072 (Int. + 27)

Directors: G. M. Ackerman (Chairman)*, R. W. P. Brasher (CEO)#, R. S. J. van Rensburg (Deputy CEO), A. Jakoet (CFO), J. G. Ackerman, S. D. Ackerman-Berman

*Non-Executive #British

APPENDIX F: EDITOR'S LETTER

Kingdom Editing
26 Cinnamon Street
Bardale Village
Kuils River
7580

October 2016

EDITING & PROOFREADING

Takudzwa Musiyarira

CONSUMER ADOPTION OF ONLINE GROCERY SHOPPING IN THE CAPE METROPOLITAN AREA, SOUTH AFRICA

This is to confirm that the above titled Master's dissertation of TICHAONA BUZY MUSIKAVANHU, student number 210 226 943, at the CAPE PENINSULA UNIVERSITY OF TECHNOLOGY, was edited (language and technical) by Takudzwa Musiyarira in preparation for submission of thesis for assessment.

Yours faithfully

Takudzwa Musiyarira

email: takutau@gmail.com

cell: (+27) 79 484471