UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI
Graduate School of Business and Leadership

UNIVERSITY OF KWAZULU-NATAL

What are the factors influencing the use of discount websites by businesses in a shopping mall? A case study of four shopping malls in Durban, South Africa

By

Mr Vijay Rubinduth Ramballie

963082001

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Acronyms and Abbreviations

CBD	Central Business District
DMMA	Digital Media and Marketing Association
DOI	Diffusion of Innovation Theory
C-commerce	Collaborative Commerce
E-business	Electronic Business
E-commerce	Electronic Commerce
E-mail	Electronic Mail
E-marketing	Electronic Marketing
E-readiness	Electronic Readiness
ICSC	International Council for Shopping Centre's
IT	Information Technology
ODI	Online Discount Intermediary
RFID	Radio Frequency Identification
SMEs	Small Medium Enterprises
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
USA	United States of America

Abstract

The inception of the Internet has introduced new forms of marketing, which increase awareness of sales promotions to consumers. Consumers are offered great opportunities through discount websites. Discount websites allow consumers to search for promotions through convenient internet access. The websites, referred to as online discount intermediaries (ODIs) in this study, act as a 'link' between the consumer and the business through online systems. The questions that arise then are whether current business practice encourages the use of discount websites. This is followed by understanding the factors that will influence businesses to use discount websites. Furthermore, it looks at the possibilities and challenges that arise from businesses using discount websites to extend savings to the consumer, while deriving various business benefits. The study examines the factors in the context of businesses in shopping malls. It set out to explore the factors influencing the use of discount websites where such websites could increase the foot traffic into a shopping mall. In achieving the objectives of this dissertation, a quantitative study was conducted with four shopping malls in the KwaZulu-Natal region. Businesses within these shopping malls were engaged to participate using a questionnaire to obtain responses. The respondents are the business owners or store managers. There were 140 stores (businesses) in total that were approached with a 75% response rate. Data was analysed using various methods of analysis such as descriptive, factor, chi-square and correlation analysis. The study was underpinned by the Diffusions of Innovations Theory which showed applicability for ODI adoption in a South African business context. Overall findings show that discount websites could be perceived as drivers in improving the customer base and competitive position of the business. It can extend convenience to the customer and help them make more informed purchasing decisions. Discount websites can offer businesses the potential to increase revenue and extend their customer base. This can have positive implications on increasing brand exposure. Compatibility of the websites can influence the decision on whether or not to adopt new technology. Financial and technical resources can be limiting factors in businesses successfully integrating discount website usage in their current business practice. However, management could still favour the adoption of discount websites as the benefits are potentially significant.

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Chapter 1

Introduction

1.1 Introduction

The initial chapter will provide a background to the study. It presents the research problem, research questions, objectives, theoretical framework and ethical considerations. The research method, the significance and contribution of the research and the potential limitations of the study will also be indicated. The chapter ends with a proposed layout of the study.

1.2 Online Discount Intermediaries briefly explained

Consumers are spoilt for choice due to the variety of shopping malls available. They often do not know how to make the most informed purchasing decision/s (Mpofu, Milne and Watkins-Mathys, 2013). Merchants or store owners within these shopping malls need to be able to communicate their offerings effectively. This allows them to be competitive against other stores within the same shopping mall or amongst other malls. Differentiation by store appeal is not sufficient to attract consumers into the store (Mpofu, Milne and Watkins-Mathys, 2013).

Deals and coupon websites assist businesses to expand their client target market by offering promotions on products and services. There are many such websites nationally and globally which offer discount promotions such as Groupon, Dealafrica and Guzzle, to name a few (Arar, 2011; DealAfrica, 2012; Guzzle, 2011-2016). This exists across a range of industries such as hospitality, electronics, fashion, food, entertainment, health, beauty among other products and services. Promotion-based websites use email or social media to communicate with their database of subscribers. Merchants (or businesses owners) pay the intermediary a commission to promote their products or services on the promotion website or to gain access to their database mailing list. These discount offering websites are also referred to as ‘flash-sale’ or

‘couponing’ websites (Boon, 2013). In this study, they are referred to these online discount advertising portals as ‘Online Discount Intermediaries’ (ODIs).

Arar (2011), Yue (2011), and Im and Ha (2012), published studies on consumer attitudes towards promotional websites. Only a few studies are conducted on businesses using the discount website route for brand exposure (Yue, 2011; Im and Ha, 2012; Boon, 2013). The formation of deal (promotion) aggregator websites in recent years, offer a combination of offerings from other similar promotional websites. This gives consumers a choice of the best promotion (Boon, 2013). Consumers see the promotions as viable options to saving money. It also provides the opportunity to try out new products or services at lower prices offered by businesses (Boon, 2013).

1.3 Problem statement

There is uncertainty whether businesses in South African shopping malls use ODIs. This stems from paucity of research in relation to this in South Africa (Google Scholar, 2016; Business Source Complete, 2016). Consequently, shopping malls in South Africa have been revamped and expanded to meet the needs of goods and services for consumers. Creating a competitive advantage over other shopping malls is important to the viability for promotion of individual stores (Mpofu, Milne and Watkins-Mathys, 2013). However, there is minimal evidence whether local businesses, that cater for a market of consumers who want the traditional shopping experience, would be keen on advertising on discount websites. For example, a consumer may wish to purchase an affordable new 32 inch Flat Screen television set. Although discounts are available to the consumer via online shopping options, it is unlikely that this consumer can search multiple stores within one shoppping mall for the television. Also,the consumer may not be able to compare discounts across shopping malls in the city she/he lives. This study will set out to address the problem by attempting to determine whether there are businesses in shopping malls that use ODIs in the Ethekwini (Durban) area within the province of KwaZulu-Natal, South Africa. In addition it may establish the circumstances which would prompt businesses to adopt ODIs as well that the challenges that hinder ODI adoption.

In addressing the problem, the study sought to investigate whether or not stores have the technological readiness to use ODIs. In addition, factors and reasons for the use and adoption of ODIs were investigated. The study further examined whether mall specific search filters on websites, such as ODIs, are able to direct customers into specific stores. This feature allows businesses to advertise promotions online, but also direct customers into specific stores so the traditional shopping experience is not completely lost.

To be broadly representative, the study took place over four shopping malls in Durban.

1.4 Background to the problem

Online discount intermediaries are a multi-billion dollar industry which increased by 138% in revenue from 2010 to 2.67 billion United States dollars (USD) in 2011 in the United States (Boon, 2013). One of the largest intermediaries is Groupon, which operates in over 48 countries worldwide. Merchants who advertise on these discount intermediaries are usually smaller businesses. These businesses are exploring opportunities that e-commerce offers to attract new customers which they may have previously not utilized (Arar, 2011).

Similar websites do exist in South Africa such as Guzzle (Guzzle, 2011-2016) and Dealafrica (DealAfrica, 2012). These are aggregator websites that use specials from either retailer catalogues or from other online discount websites. Preliminary desktop research was conducted by the investigator on 14th September 2015 on 20 popular discount websites in South Africa. This revealed that there isn't a direct link between the offerings provided by merchants and a quick channel of communication to which store these promotions may be found in shopping malls. This is elaborated in the rationale below.

1.5 Rationale

The investigator conducted a prelimary desktop study to understand whether the ODIs in South Africa have a mall search filter. It is expected that this feature would have the

ability to direct consumers to specific stores within a mall, which offers a promotion online. Based on number of facebook “likes” on 14th September 2015, 20 websites are ranked in the table below by the investigator, in descending order:

Name of Site	Number of Facebook “Likes”	Mall Search Feature	Date when website was accessed
Groupon.co.za	13925576	No	14th September 2015
Vouchercloud.co.za	287050	No	14th September 2015
Onedayonly.co.za	90719	No	14th September 2015
Ubuntudeal.co.za	76358	No	14th September 2015
Citymob.co.za (links to superbalist.com)	73938	No	14th September 2015
Daddysdeals.co.za	52981	No	14th September 2015
Vuvuplaza.co.za (user is directed to loot.co.za)	26671	No	14th September 2015
Dealzone.co.za	16272	No	14th September 2015
Wantitall.co.za	10545	No	14th September 2015
Guzzle.co.za	9578	No	14th September 2015
Zasttra.com	7937	No	14th September 2015
Catchoftheday.co.za	3000	No	14th September 2015
Findspecials.co.za	1322	No	14th September 2015
Discountvouchers.co.za	870	No	14th September 2015
Dealafrica.co.za	841	No	14th September 2015
grabit.co.za	445	No	14th September 2015
24hoursonly.co.za	230	No	14th September 2015
sacoupons.co.za	113	No	14th September 2015
Groupbuying.co.za	94	No	14th September 2015
Whatadeal.co.za	58	No	14th September 2015

Table 1: The different Deal and Coupon websites ranked by Facebook 'likes'

Source: Compiled by Vijay Ramballie, (2015)

As reflected in Table 1, there is a gap in terms of ODI interfaces which do not incorporate the mall search filter. As a result, consumers will not be able to compare discounts and promotions fast enough with different store outlets at relevant malls. This has implications on money saved and time lost. Even aggregator websites which combine promotional website specials don't achieve this (DealAfrica, 2012; Guzzle, 2011-2016). There are therefore no websites in South Africa that offer users the convenience of identifying all store specials at specific malls they wish to visit. Some shoppers may still enjoy the traditional family outing of going to a store to make a purchase. At the same time, they may want to maximise their savings by targeting only the stores offering the best bargains at specific malls.

This study therefore tries to establish what factors would influence merchants to list promotions on discount websites. It also establishes whether or not the incorporation of a mall search function into the advertising intermediary portal may serve as a marketing incentive tool for merchants wanting to direct consumers to store and mall specific promotions.

In the interest of full disclosure, the investigator has developed a similar advertising portal which incorporates a mall search function, providing a platform for comparison of the listed products and services by means of a province, city, mall and keyword filter (Special Discounts, 2011). This is elaborated under the section of "Ethics" (section 3.6) in this study.

1.6 The purpose of the study

With reference to the above statements and arguments, the primary purpose of the study was to explore the factors influencing the use of discount websites by business in shopping malls, where such websites can increase the foot traffic into a shopping mall. This could be achieved by only indicating what discounts are available and not offering options for actual online purchase. This study looked at the intersection between online and traditional consumer behaviour and how businesses are responding to these. In doing so, more ways could be proposed to ensure that

shoppers receive the maximum benefit of ODIs.

1.7 Research Questions and Objectives

1.7.1 Research questions

In relation to the problem statement and purpose of the study, the questions that the study will seek to answer are:

- What are the current business practice of using ODIs at businesses located in shopping malls in Durban (KwaZulu-Natal)?
- What are the factors influencing the use of ODIs by business in shopping malls in Durban?
- What are the possibilities and challenges for business in the adoption of ODIs?

1.7.2 Objectives

The above research questions generate the following objectives:

- To determine the current business practice of using ODIs at businesses located in shopping malls in Durban (KwaZulu-Natal)
- To investigate the factors influencing the use of ODIs by business in shopping malls
- To investigate the possibilities and challenges for business in the adoption of ODIs

1.8 Theoretical framework and paradigmatic perspective

The study was underpinned by the Diffusion of Innovations (DOI) theory (Rogers, 1983). This theory was developed in 1943, and was first used in a scientific study of hybrid corn at Iowa State University. It has since formed the foundation of explaining social systems, communications, health systems, geography, marketing, political science and the adoption of new technology (Valente and Rodgers, 1995). Rogers (1995) identifies five major determinants at this stage of persuasion. For this study, relative advantage, compatibility, complexity, trialability, and observability will be

applied as potential determinants of online discount intermediaries adoption by businesses in the mall context (Ndayizigamiye, 2012). According to Rogers (1995), the diffusion of an innovation is a “process that is adopted by members of a certain community” (Rogers, 1995, p.5). This theory will explain the adoption and spread of technology across a system (Sahin, 2006).

1.9 Delimitations/Scope of the study

The study was carried out in 4 major shopping malls in the Durban area. Exploring the responses from a total population of 140 businesses (across the 4 malls), it may provide a generalised view of business perceptions of using ODIs for businesses.

1.10 Method and outline

The respondents selected for this study were obtained from four shopping malls in the Durban area of KwaZulu-Natal, South Africa.

1.10.1 Research design

1.10.1.1 Quantitative

For the purpose of this study quantitative data collection methods were employed. Quantitative research involves statistics, data analysis, correlations, and measurements. “Multi-chotomous” question allows respondents to choose one of many answer choices. This forms of close-ended questions will be used in the questionnaire for this study, adapted from previously conducted studies.

Data was collected both through manual (paper-based) and online questionnaires. For the online method, data was collected via an online questionnaire tool known as QuestionPro®. This allowed for quick and accurate data collection. Where necessary, questionnaires were personally administered to respondents. Data collection took place over the period 25th April 2016 to 29th April 2016.

1.10.1.2 Sample population and sampling approaches

The total population of the respondents (businesses) across all 4 malls amounted to 140. This generated a sample size of 104 respondents with a confidence of 95%. This is further elaborated in the methods chapter (Chapter 3).

1.10.1.3 Questionnaire design

Questionnaires were used as the survey instrument to provide a standardised instrument for data collection (Sekaran and Bougie, 2015). A questionnaire designed and used by Ndayizigamiye (2012) will be adapted for use in this study. The questionnaire designed by Ndayizigamiye (2012) examined the usage of e-commerce for businesses in Durban. Furthermore, it investigated the determinants, enablers and inhibitors of e-commerce adoption by businesses (Ndayizigamiye, 2012). In order to answer the research questions a survey is designed using 41 questions and page logic. This means that depending on each respondent's answers to certain questions they will not need to answer all of the questions in the survey.

Likert scale questions were used. A Likert scale measures the respondents' level of agreement or disagreement to a mentioned situation or statement (Sekaran and Bougie, 2015). Likert scales are given scores or assigned a weight to each scale, usually from 1 to 5. The purpose of the Likert scale is to get a response average.

1.11 Data analyses

The completed questionnaires were coded, captured, and analysed. The analysis will be both descriptive and inferential. The data was hence subject to the following analysis:

- Frequency analysis: deals with the number of occurrences (or frequency) and analyses measures of central tendency and measures of dispersion (Greasley, 2008). This will be represented through graphs, charts, and tables.

- Reliability Analysis (Cronbach's Alpha): In statistical terms, reliability produces consistent results with the overall questionnaire for sets of items. Cronbach's alpha is the most common measure of internal consistency (Tavakol and Dennick, 2011).

- Factor analysis: Factor analysis is a statistical technique that primarily aims for data reduction. It establishes whether the respective measures do, in fact, measure the same thing. If so, they can then be combined to create a new variable, which is a factor score variable that contains a score for each respondent on the factor (Gurusamy, 2011).

- Chi-Square: Chi-square is used for testing hypotheses for discrete data. It applies a statistical test to cross-tabulation by comparing the actual observed frequencies in each cell of tables with expected frequencies. Expected frequencies are those we would expect if data is 'randomly distributed' (Foster, 2002).

- Correlation tests: To determine whether one variable is related to another, as well as the strength, direction and significance of the relationship (Sekaran and Bougie, 2015).

1.12 Reliability and validity of the research

Validation refers to how well the test will measure what it is intended to measure (Phelan and Wren, 2006). Questionnaires used in previous studies on Information Technology/e-commerce adoption provide a guide for deriving this studies questionnaire. This was achieved by means of adjustment or adaptation, to fit within the context of this study (AlGhamdi, 2012; Ndayizigamiye, 2012). Reliability refers to the degree to which an assessment tool produces consistency in the results of a study (Phelan and Wren, 2006). As a quantitative study the research will follow a descriptive design.

As the unit of analysis of this study was at the mall level, it was ensured that key gatekeepers were contacted for initial consent for the study approval. This included

senior management, general managers or marketing management of the participating stores/businesses. There was one respondent per participating store, in each of the malls. This allowed the study to be conducted at store level within the mall, approaching store owners and managers to complete the questionnaire. Method of administering the questionnaire was either online or by completing of a paper-based document. Respondents who wished to complete the online version of the questionnaire were provided with the link to the online platform on QuestionPro®. Data was instantly captured onto the QuestionPro's electronic database which could then be exported for statistical analysis.

The paper-based questionnaire was used for participants who did not have access to the internet. Questionnaires were hand delivered to respondents. The study was briefly explained to the potential participants. Businesses were allowed to complete the approximate 20 minute questionnaire within the space of eight hours of the business day.

1.13 Significance and Contributions

This study is aimed at filling the research gap in this area. It can add to a minimal body of knowledge by providing insight on online technology. This can create awareness to the store owners and managers, interested in the factors that influence business owner's use of ODIs in Durban shopping malls. It may also be relevant to developers, investors, consumers as well as researchers.

The study intended to provide better insight into how business owners make decisions about where to advertise, and their relationship with online technologies. This includes the convenience of using ODIs and perceptions of the ease of ODI website usage. The benefits of ODIs for promoting businesses is also explored. The importance of brand exposure through online information of products and services will be highlighted.

The study provided insight of the convenience of online browsing for promotions. The opportunity to harness the potential of an online community of shoppers at any part of the day are also explored. Businesses that have not engaged with ODIs previously

may reap their newly discovered benefits of the internet by understanding how ODIs work and there usability. For example, an internet business user may be able to upload an advert/promotion online with relative ease and on a minimum budget. The study examines the role of ODI's in a South African mall setting. It therefore looks at the previously unexamined aspect of the intersection between online browsing for promotions and traditional shopping in malls.

The shopper's decision-making can be positively influenced with minimum time expended walking the lengths of shopping malls. This will be accomplished through detailed descriptions, imagery/visuals and sales information on such products and services. Smaller businesses that are listed on the same online platform as larger businesses will have the advantage of extending the businesses existing brand. This may be attributed by the creditability afforded by larger business on the same site.

1.14 Proposed layout of the study

The layout of this dissertation will be presented as follows:

- The *abstract* provides an overview of the research study.

- *Chapter one* focuses on introduction, background and definitions. Also included in this chapter is the motivation or rationale of the study, the problem statement and aspects relating to ethics for the study. The chapter also highlights the purpose for the study and related objectives, and research questions.

- *Chapter two* reviews the literature in the context of the study. The theoretical framework and paradigmatic perspective will also be covered in this chapter.

- *Chapter three* covers the research methodology related to the design, details on the population and the sample. It explains how the sample was selected and the methods that will be used for data collection and questionnaire

design.

- *Chapter four* presents the descriptive analysis and interpretation of the findings.

- *Chapter five* presents the detailed data analysis and interpretation of the findings.

- *Chapter six* looks at the key findings, final conclusions, the implications and recommendations for businesses intending to use ODIs as a suitable avenue for brand exposure in South Africa. It will link the results back to the research questions and objectives of the study to determine whether they were fulfilled. This will also provide information on the delimitations or scope of the study.

- A list of *references* and *appendices* will be provided.

1.15 Summary

This chapter provided a definition and background to ODI usage in businesses. The problem in relation to ODI adoption in South Africa was identified. In addition, this chapter presented the problem statement, research questions and objectives, the adopted theoretical framework and brief limitations of the study. The research methodology was outlined. The significance of the study was indicated as well as ethical considerations that should be acknowledged. A brief overview of the proposed layout of the study is also presented. Chapter 2 will present the literature relevant to this study, based on studies that were conducted in the area. The theoretical framework will also be discussed in more detail.

Chapter 2
Review of Relevant Literature

2.1 Introduction

This chapter provides the relevance of this study in relation to the information sourced from findings of previous studies as well as delineating gaps in the reviewed literature. The literature provided serves as a grounding that supports the primary study. Key works, studies and findings from other applicable studies will be shown in this chapter. This will also allow relevant literature presented in this chapter to support the anticipated findings that the primary study will make.

2.2 The Context

By 2016, the South African internet economy is expected to grow by 2.5% with an expected net worth greater than R59 billion (Goko, 2013). The advances in technology necessitate businesses to adapt to the changing communication pattern in connecting to consumers. Consumers are searching for fair prices in the globalised technologically driven village. This affects the methods by which business is conducted (Beauchamp and Ponder, 2010). The shopping mall environment is often affected where businesses are displaced by other stores. Businesses are sometimes forced to terminate their services due to inability to compete in the brutal price market. Consumers are becoming more price and promotion sensitive fueling and driving the marketplace with a demand for promotions and/or discounts. Businesses which opt for e-marketing to advertise discounts create convenience for the consumer and improved sales promotions for the business (Salehi, et al., 2012; Beauchamp and Ponder, 2010).

E-marketing incorporates the advertisng of discounts. There is substantial research which explores why consumers shop online to obtain discounts. Limited research exists to understand the businesses avenues for e-marketing and challenges to advertise discounts online (Thang and Tan, 2003; Soriano, 2005; Michael, 2006; Beauchamp and Ponder, 2010; Fan and Tsai, 2010; Khan and Rizvi, 2011; Salehi, et

al., 2012; Bicen and Madhavaram, 2013; Wallace, 2013; Uberti, 2014; Hasan and Mishra, 2015; Patterson, 2015). It is even more difficult to find relevant research in South Africa on this topic (Shima and Varfan, 2008; AlGhamdi, 2012; Ndayizigamiye, 2012; Salehi, et al., 2012; Kalyanam; 2013). Businesses which operate in a shopping mall percieve themselves as a unified entity of the mall (AlGhamdi, 2012). These businesses are often not ready to engage in e-marketing. Store-specific e-marketing initiatives have the impact of delivering greater foot-traffic into mall environments. Businesses in malls should be engaging in their own e-marketing campaigns and not rely primarily on the efforts of the mall management (AlGhamdi, 2012).

The decision for businesses to adopt technology that facilitates better brand exposure through e-marketing therefore needs to be understood. The businesses internal factors as well as the businesses understanding of consumer spending habits are important in understanding the reasons for businesses to adopt the relevant technology. However, minimal literature provides perspective on both aspects concurrently (Thang and Tan, 2003; Soriano, 2005; Michael, 2006; Beauchamp and Ponder, 2010; Fan and Tsai, 2010; Khan and Rizvi, 2011; Salehi, et al., 2012; Wallace, 2013; Uberti, 2014; Hasan and Mishra, 2015; Patterson, 2015). Related research on exploring businesses satisfying consumer needs for improved shopping experiences is lacking in South Africa (Google Scholar, 2016; Business Source Complete, 2016). Particularly since it is percieved as an independent issue of managements' attitude and businesses' current infrastructure and resources that supports organisational readiness for technology adoption (Bradford and Florin, 2003; Lee and Kim, 2007; AlGhamdi, 2012; Ndayizigamiye, 2012; Hung, et al., 2014).

In order to compete in both the traditional and online shopping environments, businesses need to understand consumer spending habits in both domains, but there are drawbacks to each (Salehi, et al., 2012). Traditional shopping drawbacks include identifying the retail location, travelling to the location and finding parking space. Searching through the store to find the product required is also a problem for traditional shopping, especially when compounded by time constraints. Searching for physical outlets offering products of similar value in terms of price and quality is also an issue where proximity of retail stores is a challenge (Beauchamp and Ponder, 2010). Other

drawbacks for traditional shopping include unnecessary queues and restricted shopping hours, unlike online shopping environments. Online shopping also has certain drawbacks. Online shopping elimates sensory aspects of feeling, smelling, or interacting with the actual product. More engaing and personalised shopping experiences are not offered through online shopping. Purchases online are percieved as more risky with the type of warranties offered in online shopping environments (Sekaran and Bougie, 2015). Consumers want to save time and money, so website navigation needs to enhace the shoppers experience. This is not always achieved as updated and maintenance of websites can be costly and time-consuming (Shima and Varfan, 2008).

The opportunity to improve shopping for both online and traditional environments exists for discount platforms (Wallace, 2013). Research presented shows that shoppers opt for one over the other with the non-existence of platforms that intergrate the two. This integration cannot ignore the businesses understanding of factors that can help overcome their e-marketing challenges. These factors include organisational electronic readiness (e-readiness), competitive pressure, set-up and maintenance costs and relative advantages of using e-commerce. Additional factors include Information Technology infrastructure and consumer purchasing power. Taking into account the aforementioned organisational e-readiness factors, these can support each domain effectively for business adoption of e-marketing (AlGhamdi, 2012). There is minimal literature published on this applicable to the South African context (Google Scholar, 2016; Business Source Complete, 2016).

2.3 Background and terminology

The study begins with an understating of the magnitude of the mall environment in South Africa. Docrat (2007) defines a shopping mall as “a planned grouping of retail stores that lease space in a structure that is designed, developed, owned, marketed and managed as a single unit”. There are over 2000 shopping malls across South Africa, which cover over 23 million square meters of retail space. South Africa is ranked sixth globally for the highest number of shopping malls (SA Commercial Prop News, 2015). However, a study conducted by researchers for the International Council

for Shopping Centre's (ICSC, 2005) revealed that shoppers are making less mall visits but when they do, they are more efficient about it (Soriano, 2005).

Various types of shopping malls (also referred to as shopping centres in this dissertation) are found in South Africa. Shopping malls are classified primarily by functional, location, physical criteria, size, tenants mix and anchor tenants (Docrat, 2007). There are eight basic types of shopping malls classified as shown in Table 2:

Product Mix	**Typical anchor tenant mix**	**Accessibility**	**Trade area population**	**Size m^2**
Shopping Entertainment Speciality Convenience	Three or more department stores plus two or more national grocers	Intersection of freeways and arterial	>150 000	>200 000
Shopping Entertainment Speciality Convenience	Two or more department stores plus one or more national grocers	Intersection of freeways and arterial	>60 000	75 000
Shopping, speciality and strong convenience support	Junior department store, plus a national grocer	Intersection of major arterials	30 000 - 60 000	15 000 - 30 000
Convenience, with limited shopping and speciality	National grocer	Intersection of arterial and collector road	10 000 - 30 000	5 000 - 15 000
Almost exclusively convenience	National franchise or national supermarket chain	Collector road	4 000 -20 000	2 000 - 10 000
Almost exclusively convenience	Variety independent stores	Collector road	1 000 - 4 000	Up to 2 000
Shopping and speciality	National stores and factory shops	Intersection of freeways and arterial	>15 000	>10000
Shopping and speciality	National stores and variety of specialize independent stores	Intersection of freeways and arterial	>20 000	> 15000

Table 2: Indicating the characteristics of each shopping mall where anchor tenants are the main attraction for consumers

Adapted from Docrat (2007, p.17)

Advertising online has rapidly proliferated a new market for businesses to explore, in terms of new consumers and new channels of communication for advertising (Salehi,

et al., 2012). Advertising is “any paid form of non-personal presentation and promotion of ideas or goods or services by an identified sponsor” (Shima and Varfan, 2008, p.12).

The evolving technological screen-culture environment is allowing the opportunity to explore the market place for consumers. Consumers have submitted to the temptations of advertising whilst still maintaining certain tastes and preferences (Khan and Rizvi, 2011). Such modern marketing explores the selling of goods and services at lower prices in a global market by producers, suppliers and businesses (Salehi, et al., 2012).

Mall spaces that were once the economic and social fabric of comsumerism for developing suburbs, are slowly becoming costly structures driven by cautious consumers. Consumers aren’t easily parting with their money (Uberti, 2014). Businesses need to communicate using successful marketing strategies and incentives for the consumer. Marketing is the “process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchange that satisfy individual or organisational objectives” (Shima and Varfan, 2008, p.8). Companies engage with different marketing activities in promoting their products. The development of technology has impacted on the communication that companies use to inform consumers of their product offerings (Shima and Varfan, 2008).

It becomes important to establish how large the online consumer market really is. Foreshew (2003) notes that consumer spending online in Australia grew from AUD4.8 billion in 2002 to AUD18 billion in 2006. The ability of consumers to efficiently search for information online has contributed to the growth of the Internet. There are more than 1.7 billion users reported globally in 2013 (Prompongsatorn, Sakthong and Chaipoopirutana, 2013). A survey conducted on online shopping in South Africa by MasterCard World Online (2013) revealed that online shopping grew from 44% in 2009, to 53% in 2010 and to 58% in 2012 (Fin24, 2013). Similar research by the Digital Media and Marketing Association (DMMA) found the increase in 2013 to be 59%, with 45% of these online shoppers spending more money than previous years in South Africa (Fin24, 2013). By 2015, the number of online shoppers increased to 70% in South Africa. This being the second highest of potential shoppers in the African

continent with Nigeria at 89% and Kenya at 60%, as reported by the global market research company (IT News Africa, 2015).

Using modern facilities as well as technological advancements changes the way communication takes place online to consumers. Hence businesses are able to promote their products and services even more effectively (Salehi, et al., 2012). Yet, not all businesses use the e-marketing platforms to promote themselves as a means to attract consumers. E-marketing is viewed as “not only marketing on the internet, but also includes marketing done via e-mail and wireless media. It uses a range of technologies to help connect businesses to their customers” (Chaffey, 2009, p.419). This definition emphasises how communication and the use of technology connects businesses and customers. The performance of business activities is driven through e-business. Internet marketing is a subset of e-marketing, which is a subset of e-commerce which is a subset of e-business, as shown in Figure 1:

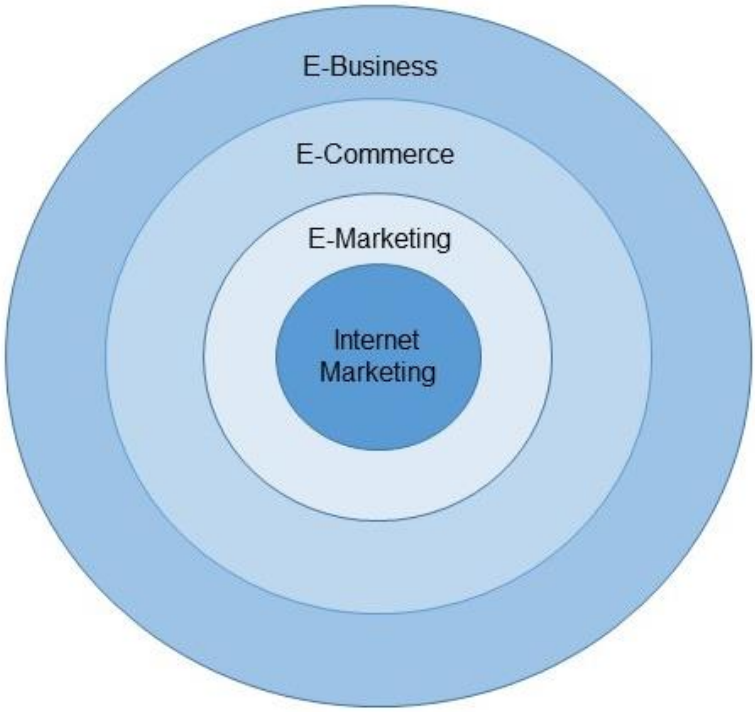

Figure 1: The Sub-sets of Business Activities

Source: Salehi, et al. (2012, p.514)

Another definition for e-marketing is “the transfer of goods or services from the seller to the buyer and involves one or more electronic methods or media” (Hoge and Cecil, 1993, p.176). This definition does not emphasise the importance of the relationship

that sellers need to develop with their consumers. A third definition of e-marketing is “the use of technology in the process of creating, communicating, and delivering value to consumers, and for managing consumer relationships that benefit the organisation and its stakeholders” (Strauss and Frost, 2003, p.312). This definition in itself encapsulates the reasons for businesses to engage with e-marketing to promote their products. Brand value is derived when it provides consumer satisfaction. Where traditional marketing satifies the consumers need for sensory interaction, its not as cost-effective, fast or convenient as e-marketing (Salehi, et al., 2012). For the purpose of this dissertation, the word e-commerce will be used to include the concepts of e-marketing and internet marketing.

In understanding why businesses should undertake to direct their promotions online, it is important to consider that the consumer is key in deliverying the end result of improved profits. Sales promotions are used in marketing campaigns to “create an incentive for consumers to start using the product” (Shima and Varfan, 2008, p.11). To help establish loyalty, lower product costs and sales promotions in the form of free items, coupons or prizes are used to target consumers. Ipsos (2015) reports that 88% of South African online shoppers listed lower product costs as a strong motivation to shop online (IT News Africa, 2015). Presenting promotions to consumers creates more interesting value in the minds of the consumer. This attracts new consumers and rewards existing ones (Shima and Varfan, 2008). Therefore underlying motivations and reasons for businesses to attract consumers using promotions, should be derived from satisfying consumer needs (Salehi, et al., 2012).

The appeal of the Internet for young and older consumers is derived from the swift finger-tip access it offers for almost any item. This includes music, hobbies, gadgets, entertainment, interests and lifestyle to travel and tourism. Website promotions that provide a mix of commodities should be priced reasonably, at a time and place that is convenient for the consumer (Hasan and Mishra, 2015). Ipsos (2015), as stated in IT News Africa (2015), suggest that discount shopping for a variety of items is escalating in South Africa. Here, 85% of online shoppers indicate that promotions, discounts and even coupon websites would encourage them to shop online more often (IT News Africa, 2015).

The challenge is that consumers become more price and promotion sensitive over time. This threatens the tradtional shopping environment, such as physical shopping malls (Uberti, 2014). Shopping malls are also facing threats from other malls developing in close proximity and discount centres which offer value-pricing (Uberti, 2014). Businesses need to find ways of influencing consumer preference. Offering discounts have a significant influence on consumer preference (Thang and Tan, 2003). Through the advancement of technology, new avenues for promotions are explored (Hasan and Mishra, 2015). This contributes towards brand recognition and hence towards increased sales. Such technology further aids the development of consumer loyalty. Through stimulated interest crafted in effective marketing communication strategies, more informed consumers are likely to respond to advertised messages (Hasan and Mishra, 2015).

While the current study focuses on the businesses' adoption of technology, it is still important to review some literature regarding consumers' factors. This is because business success and transactions involves two elements; sellers and consumers. Businesses need to evaluate both internal and external factors which influence the adoption of new technology. In this respect internal factors such as organisational electronic readiness (e-readiness), set-up and maintenance costs, Information Technology infrastructure and relative advantages of using e-commerce need to be considered. External factors such as competitive pressure and consumer influence also need to be considered (AlGhamdi, 2012; Ndayizigamiye, 2012).

An understanding of consumer buying patterns in both the traditional and online environment can present some perspective on whether businesses are keeping up with the online trends. Consumer shopping behaviour online and e-marketing of promotions are also relevant here. Businesses which opt for e-marketing as an avenue for promoting their businesses are more successful (Beauchamp and Ponder, 2010). This also creates convenience for the consumer and improved sales promotions. Technology operates on a global scale and the global market is uncertain. In keeping up with consumer spending, businesses need to use e-marketing to make products and services more accessible to consumers (Beauchamp and Ponder, 2010; Salehi, et al., 2012).

Research exists which explores why consumers shop online to find discounts or bargains (Thang and Tan, 2003; Soriano, 2005; Michael, 2006; Beauchamp and Ponder, 2010; Fan and Tsai, 2010; Khan and Rizvi, 2011; Salehi, et al., 2012; Bicen and Madhavaram, 2013; Wallace, 2013; Uberti, 2014; Hasan and Mishra, 2015; Patterson, 2015). Limited research exists to understand the actual business use of e-marketing and its challenges (Google Scholar, 2016; Business Source Complete, 2016). Limited research is available that shows how businesses advertise to market their promotions online. Further, this research was not based entirely on discount websites in South Africa (Shima and Varfan, 2008; AlGhamdi, 2012; Ndayizigamiye, 2012; Salehi, et al., 2012; Kalyanam, 2013).

The adoption of technology by businesses can be further explored. This is with respect to the businesses consideration of consumers reasons for spending both in traditional mall environments and online. This would provide insight on cost saving and convenience for the consumer. Yet, no literature provides perspective on both simultaneously (Thang and Tan, 2003; Soriano, 2005; Michael, 2006; Beauchamp and Ponder, 2010; Fan and Tsai, 2010; Khan and Rizvi, 2011; Salehi, et al., 2012; Ndayizigamiye, 2012; Bicen and Madhavaram, 2013; Wallace, 2013; Uberti, 2014; Hasan and Mishra, 2015; Patterson, 2015).

Related research on managements' attitude for technology adoption for improved discount finding is lacking (Aguila-Obra and Padilla-Mele´ndez, 2006; Brown and Russell, 2007; Chong, et al., 2009; Wang, Wang and Yang, 2010). Similarly, research on businesses current infrastructure and resources that support technology adoption for finding discounts is lacking. Management's attitude and the organisations readiness for technology adoption are perceived as independent (AlGhamdi, 2012; Ndayizigamiye, 2012). There are a variety of frameworks, such as the Theory of Reasoned Action, Technology Acceptance Model, and Diffusion of Innovation Theory, which attempt to explain the adoption of technology in businesses (Pease and Rowe, 2005; Lin, 2007; Peslak and Bhatnagar, 2009). In order to explore how businesses adopt new technology in e-marketing, this study may explain a framework which considers the adoption as an enabler of the firms agility.

2.4 Theoretical Framework

Different disciplines across the spectrum of management, communications, advertising and technology provide theoretical models as frameworks. These theoretical models explain incentives (or drivers, determinants, motivators, accelerators, enablers) and barriers (or inhibitors) to technology adoption (Wymer and Regan, 2005). Among these are:

- Theory of Reasoned Action (TRA) - A framework developed by Ajzen and Fishbein in 1980. It indicates that social behaviours are motivated by an individual's attitude, subjective norm, intention and behaviour. This has greater application for the shopper rather than the business (Lin, 2007).

- Theory of Planned Behaviour (TPB) – A framework which is an extension of TRA. It accounts for individuals who do not have complete control over their behaviour. TPB suggests that the actual usage is determined by attitude, subjective norms and perceived behavioural control. These generate evaluations and beliefs. This has more relevance for the shopper rather than the business (Lin, 2007).

- Technology Acceptance Model (TAM) - A framework proposed by Davis in 1989. It is based on TRA for evaluating the acceptance of technology based on the perceived usefulness and perceived ease of use of the technology. This has application for both the consumer and business adoption of technology (Peslak and Bhatnagar, 2009).

- Diffusion of Innovation Theory (DOI) - The diffusion of innovations theory (DOI) (also referred to the Innovation Diffusion Theory – IDT) is used to explain how innovations are adopted in a population (Robinson, 2009). The diffusion of innovation theory (Rogers, 1983) has been used to explain the adoption of new technology by businesses (Pease and Rowe, 2005; Sparling, Toleman and Cater-Steel, 2007; AlGhamdi, 2012).

Research that has previously used Diffusion of Innovation theory (Rogers, 1983) will be reviewed together to provide an understanding about the research of the current study. For the purpose of the current study, the focus of application for this theory will be primarily on the business and not the consumer. This theory does not focus on persuading people to change. Rather, it focuses on how change brings about an evolution of behaviour so that it better fits in with a group or population (Robinson, 2009).

2.4.1 The Diffusion of Innovation Theory (DOI)

Rogers (1983) explains that this theory has five attributes. This includes relative advantage, compatibility, complexity, trialability, and observability. Wyer and Regan (2005) assert that all of these have significance in the adoption of new technology.

Relative Advantage is “the degree to which an innovation is perceived as being better than the idea it supersedes” (Sahin, 2006, p.17). It basically implies that where there are high demands placed on technology, there will be higher rate of adoption amongst its users to provide a more beneficial outcome. Literature supporting this is derived from studies by Zhu, et al. (2006b) and Zhu and Kraemer (2005) which showed technology adoption rates increase when competition increases. This means that businesses which need to keep ahead of competiton will adopt new technology to improve the company profile (Bradford and Florin, 2003; Lee and Kim, 2007; Hung, et al., 2014). This has a direct impact on extending the customer base which positively impacts on sales. This is further supported by findings by Ifinedo (2011), which concluded that the likelihood of businesses adopting emerging technologies is greater where competition is believed to derive some advantages from such applications. For discount websites (also called online discount intermediaries or ODIs in this dissertation), this may explore whether the technology provides more helpful experiences for the users (i.e. businesses or consumers). The rate of adoption of the new technology for ODIs can be increased and made more effective where it supports and motivates the individuals of the social system (Sahin, 2006).

Incentives make up a fair part of the motivation and the consumers motivation directly

influences the businesses motivation for use of the new technology (Ifinedo, 2011). Literature reviewed shows that the reasons for adopting new technology to find discounted products relate to a cost saving factor. Findings by Abdul-Rahman (2010) show that consumers are geared to using coupon redemption methods to save money. Abdul-Rahman (2010) indicates that annual coupon use in the United States increased by 27% in 2009, totalling 3.3 billion coupons used per annum. Consumers are seeking novel technology to find coupons or websites which will deliver the same discount effect. This is supported by research by Išoraitė (2015) which found that coupons and discount shopping have an influence on consumer buying patterns. They conclude that discounts and coupons deliver customers to stores that offer better prices. This increases business sales with consumers engaing in impulse buying, having browsed the store for other discounted items. These findings are further supported by literature by Oliver and Shor (2003), Khan and Rizvi, (2011), Bicen and Madhavaram (2013), and Andrews, et al. (2014). Efficiency of use for the consumer is also identified as a reason (Beauchamp and Ponder, 2010; AlGhamdi, 2012).

Compatibility is “the degree to which an innovation is perceived as consistent with the existing values, past experience, and the needs of potential adopters” (Sahin, 2006, p.18). Negative compatibility may occur when the technology does not meet the needs of the individuals or social systems use. Also, if the innovation meets the needs of a client, it may indicate a strong sense of compatability. The social system is encouraged to adopt the innovation more readily when the level of uncertainty decreases. The innovation needs to be meaningful to the potential adopter (Sahin, 2006). Literature by Hong and Zhu (2006) and Zhu, et al. (2006), Brown and Russell (2007), Chong, et al. (2009), and Wang, Wang and Yang (2010) indicates that compatibility was consistently positively related to the adoption of e-commerce.

Hong and Zhu (2006) utilised the diffusion of innovation (Rogers, 1983) framework in analysing data of 1036 firms which use e-commerce. The study found that firms what have more web-compatible tchnology are likely to adopt the technology faster. Zhu, et al. (2006) used a dataset of 1857 firms across various countries applying the diffusion of innovation theory (Rogers, 1983). They demonstrated that technology integration is positively related to managerial support and the readiness of the organistion to adopt

the technology. Chong, et al. (2009) examined technology adoption in the supply chain system applying the diffusion of innovation (Rogers, 1983) model. Their research related to collaborative commerce (c-commerce). Their study demostrated that a high degree of compatibility facilitates greater e-commerce adoption. Wang, Wang and Yang (2010) applied the diffusion of innovation (Rogers, 1983) model in resect of the adoption of Radio Frequency Identification (RFID) technology in the manufacturing industry. The study demonstrated that compatibility is postively related to organisational readiness, as it has a signifcant positive effect on the companies decision to adopt new technology. This is supported by literature from Brown and Russell (2007) which showed that where new technology is compatible with the businesses existing business practices, processes and matched the business infrastructure, adoption rates would be higher.

Complexity is “the degree to which an innovation is perceived to be relatively difficult to understand and use” (Robinson, 2009, p.1). Rogers (1983) conveys that complexity is negatively related to the rate of adoption. Where technology is excessively complicated, it will present a major obstacle for the user (both consumers and businesses) (AlGhamdi, 2012). Literature by Brown and Russell (2007), Chong, et al. (2009) and Wang, Wang and Yang (2010) found that complexity was a determinant in the adoption of e-commerce. These studies found that potential adopters of new technology may be cautious because the technology may be relatively new to them. The studies concluded that will have a negative effect on the adoption of new technology. This will occur when potential adopters lack the confidence, skills, and understanding to implement it. Wang, Wang and Yang (2010) examined the adoption of Radio Frequency Identification (RFID) technology in the manufacturing industry. Their study revealed that increased levels of complexity of the technology has a negative impact on the adoption rate in an organisation. The study further demonstrated that complexity acts as a barrier or inhibitor, as orgainsations focus more attention on the challenges presented by the technologies complexity, rather than the benefits that it delivers (Wang, Wang and Yang, 2010).

Complexity is reduced when the innovation’s adoption is managed by skilled professionals (Sahin, 2006). Complexity can be examined based on the businesses’

understanding of the technological process of listing on ODIs. Complexity can also be examined on whether or not the use of such innovative websites are perceived as challenging. Where technology is user-friendly, the rate of adoption is higher (AlGhamdi, 2012).

The decision of businesses to utilise a website is influenced by the consumer's perception of ease of use of the particular website. For the current study, the concept of complexity is applied to help establish an interface for attracting consumers to return to a shopping website. Poel and Wouter (2005) examined how perceived convenience enticed consumers to shop online. Their research focused on converting potential shoppers to actual shoppers. It was learnt that well-constructed websites that offered better product information had a positive effect on consumers' intentions to purchase. These websites supported consumers informed choices. Websites that offer customised searches for information provides more control for the consumer. This allows the consumer to eliminate excessive amounts of information. The effectiveness and efficiency of such websites develops consumer loyalty and repeat website visits. In addition, a website that is customised effectively can help respond to marketing dynamics of competitors. It attracts the attention of consumers and encourages them to make more purchases. This ensures that businesses maintain a competitive advantage (Beauchamp and Ponder, 2010; Fan and Tsai, 2010).

Perceived ease of use of a website in terms of searching for data and navigation in online shopping have been associated with increased online trust. Businesses are required to understand that websites need to be perceived as useful in terms of fulfilling consumers' needs and the information it provides (Prompongsatorn, Sakthong and Chaipoopirutana, 2013).

Trialability is "the degree to which an innovation can be experimented with on a limited basis. An innovation that is trialable represents less risk to the individual who is considering it" (Rogers, 1983, p.231). There is a direct positive relationship between trialability and the rate of adoption. The greater the use of the innovation, the faster will be its rate of adoption (AlGhamdi, 2012). Where the technology is improved during the trial stage, it may create a faster rate of adoption. Easily designed innovations

provide less uncertainty in experimentation and learning and will be adopted rapidly (Bradford and Florin, 2003; Sahin, 2006; Lee and Kim, 2007; Hung, et al., 2014). Trialability can be examined based on whether businesses have used ODIs and this will include ease of use of ODIs. This extends to whether ODIs are perceived as helpful and consequently become adopted.

Observability is “the degree to which the results of an innovation are visible to others” (Sahin, 2006, p.18). The more visible the results of an innovation, the more likely is the innovation to be adopted (AlGhamdi, 2012). Observability is important in examining whether the business was motivated to adopt the technology to keep up with trends of their competitors and industry. Michael (2006) confirms that more senior consumers are opting for the online experience to save money and time. It is not just the tech-savvy customers and “baby-boomers” of the ages 18 to 24 who use online technology.

In the context of this study, relative advantage, compatibility, complexity trialability, and observability variables are applied as potential determinants of e-commerce adoption by businesses. These five variables have been used extensively in previous research including a study of Small, Medium and Micro Enterprises (SMMEs) in KwaZulu-Natal (Wymer and Regan, 2005; Sahin, 2006; Sparling, Toleman and Cater-Steel, 2007; AlGhamdi, 2012; Ndayizigamiye, 2012). Thus, their relevance within the context of business environments has been demonstrated. In an era where technology forms such a significant role in business success, it is crucial that organisations understand the online environment in promoting products. Discount offerings to consumers should consider effort, time-buying and time-saving (Beauchamp and Ponder, 2010).

For the current study, this theory leads the discussion to explore the businesses support and managements’ perception of the adoption of technology. Literature, by Chong, et al. (2009), provides that adoption of new technology will require the planning, commitment and execution of financial and technological resources. Their literature, together with Brown and Russell (2007), assert that management’s role is significant in this process. Their research found that the support by top management

increases adoption. This is because top management can increase financial and technological resources for the adoption of e-commerce. Similarly, the research provided by Wang, Wang and Yang (2010) showed that top management is positively related with new technology adoption. Their study found that management provides the vision, support and commitment needed in creating a positive environment for new technology adoption. They provide access to resources (financial and technological) which have a positive impact on new technology adoption. This is echoed in studies done by Beatty, Shim and Jones (2001), Aguila-Obra and Padilla-Mele´ndez (2006), Carayannis and Turner (2006), Jeyaraj, Rottman and Lacity (2006), Zhu, et al., (2006); Lin, (2008), Awa, Ukoha and Emecheta (2012), Postema, et al., (2012) and Akça and Özer (2014). These studies concluded that the business owner's perception of technology, their knowledge of technology and its usefulness are related.

The business owner may accept and support the adoption and implementation of the technology if it derives certain benefits. These include improving the company profile, increasing sales, extending the customer base and increasing brand exposure.

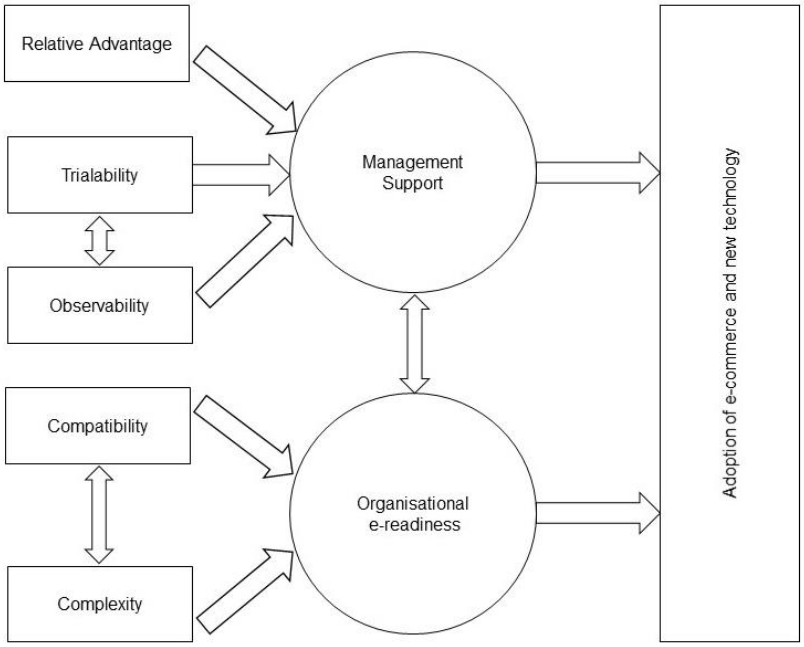

Figure 2: Conceptual framework for adoption of e-commerce and new technology represented by the Diffusion of Innovation theory

Adapted from Poorangi, et al. (2013, p.7)

Figure 2 above depicts the conceptutal model proposed in accordance with the Diffusion of Innovation theory (Rogers, 1983). It shows the association between each of the variables and the influence of management support and organisational readiness to adopt e-commerce and new technology. Thong, Yap and Raman suggest that management support involves top managements support for the adoption of innovation (Thong, Yap and Raman, 1990).

2.5 Factors that influence whether a business will adopt or not adopt e-commerce technology

The successful ability to use e-marketing and derive benefits thereof is also derived as a result of internal readiness of the business in terms of resources (financial and technological), management's attitude and the businesses current infrastructure that supports organisational readiness (Beatty, Shim and Jones, 2001; Lin, 2008; Carayannis and Turner, 2006; Postema, et al., 2012; Akça and Özer, 2014). These include organisational electronic readiness (e-readiness), competitive pressure, set-up and maintenance costs, relative advantages of using e-commerce and Information Technology infrastructure (AlGhamdi, 2012).

- Organisational readiness entails having well-trained personnel and skilled web consultants to ensures the electronic readiness of the organisation. These personnel provide the electronic needs, skills and abilities for the organisation to adopt technology. This is further explored in literature by Chong, et al. (2009) which found that organisational readiness is an important from a resource viewpoint. It helps the business establish whether it can successfully adopt a new technology. It also assists the business understand whether current business infrastructure would support the new technology. This is done through various financial and technical feasibility analysis, which includes assessing the Information Technology skills of the company (Beatty, Shim and Jones, 2001; Lin, 2008; Carayannis and Turner, 2006; Postema, et al., 2012; Akça and Özer, 2014). This is further supported by literature by Mehrtens, Cragg and Mills (2001) and Grandon and Pearson, 2004. The lack of sufficient support for employees serves as a barrier to e-commerce adoption (AlGhamdi, 2012). In a

study by Wymer and Regan (2005) for Small Medium Enterprises (SMEs) in the USA, the lack of resources was cited as one of the delays in businesses adopting technology which supports e-business. These resources may also be in the form of staff who operate the technology. Companies that fail to employ the right staff, or train existing staff diminish in success against those businesses that lead in the online marketing environment (Wymer and Regan, 2005).

- Competitive pressure occurs when businesses which operate in the same marketplace are in competition for the same or similar consumers. This in turn means competition against each other for offering their products at the best possible price in the market. Diffusion of innovation theory (Rogers, 1983) can be applied here. In terms of observability, it explains that businesses see the benefits of adopting technology based on observation of competitors behaviour. The visibility stimulates discussion and evaluation of the situation leading to trialable behaviour, where the technology is adopted on a limited basis (Banyte and Salickaite, 2008). Technology has extended market share beyond the traditional shopping environment which positions businesses in competition for higher profits in the online environment as well. In the study cited above for Wymer and Regan (2005) competitive pressure was the most important factor for adoptors and it showed the most significant difference between adopters and non-adopters. Competitive pressure for businesses stimulates businesses to react faster. More businesses where willing to adopt technology based on the influence of businesses already adopting e-commerce.

  Competitive pressures and the maket trends also force companies to adopt e-commerce to gain a competitive advantage over their rivals. A study by Chong, et al. (2009) showed that adoption rates incereased when competitive pressure was greater. Wang, Wang and Yang (2010) also identified external pressure as a significant determinant that strongly influenced the adoption of new technology. Their study showed that the ability to adopt new technology is a sign of organisational fitness in the industry. Their study further showed that competitive pressure was strongly and positively related to increased technology adoption. Similarly, studies by Zhu and Kraemer (2005), Aguila-

Obra and Padilla-Mele´ndez (2006), Lippert and Govindarajulu (2006), Zhu, et al. (2006), Zhu, et al. (2006b), Chong, et al. (2009) and Awa, Ukoha, and Emecheta (2012) also found that competitve pressure drives e-commerce and new technology adoption. These studies indicate that diffusion of technology increases with increased competitive pressure. The ability to adopt new technology is percieved as an attribute of organisational readiness. Lippert and Govindarajulu (2006) showed that competitive pressure would prompt changes in the structure of the industry. This prompts businesses to leverage novel methods to outperform their competitors, thereby changing the competitive environment. The study by Zhu and Kraemer (2005) demonstrated that businesses which faced increased competitive pressure achieved a greater extent of e-commerce usage.

- Set-up and maintenance costs are also an important factor in the adoption of technology. Businesses which require the set-up of e-commerce view the lack of a website and employment of skilled staff as a major obstacle. The lack of knowledge of how to initiate the process or costs of planning are viewed as a deterrent. Access to network services, technology and infrastructure support are also seeing as challenges (AlGhamdi, 2012). In all the literature reviewed, only the study of Small Medium Enterprises (SMEs) in the USA by Wymer and Regan (2005) included non-adopters and adopters in their sample mixture. For both, set-up costs, maintenance costs and skilled Information Technology employees were cited as consistent barriers across both groups for e-marketing and e-commerce adoption (Wymer and Regan, 2005). Literature by Chong, et al. (2009) indicates that e-commerce has direct financial and operational benefits over preceding methods used in the business. Their research indicates that a feasibility analysis would entail evaluating costs and expenditures and ascertaining the impact it would have on current e-commerce. Assessing skills shortages and developing the required skills for the new technology is one way to overcome any failure of diffusion of the technology in the business. Therefore, the support of top management plays a role as they influence training of staff and how technology is adopted and percieved throughout the business. Their study concluded that where top management support is higher, the chances of adopting the technology will increase. This is supported by

Caselli and Coleman, (2001), Zhu and Kraemer (2005), Aguila-Obra and Padilla-Mele´ndez (2006), Lippert and Govindarajulu (2006) and Zhu, et al. (2006b) which had the same findings. Furthermore, the literature by Zhu and Kraemer (2005) concluded that businesses that had greater financial commitment showed increased achievment towards the benefits of e-commerce.

- Relative advantage is cited as a major advantage of e-commerce adoption for improving operational performance (Wymer and Regan, 2005). The greater prospects of achieving these gains increases the adoption of the technology. Where perceived advantages of using an innovation is greater, the adoption of the technology increases (Bradford and Florin, 2003; Lee and Kim, 2007; Hung, et al., 2014). AlGhamdi (2012) confirms that relative advantage is an important factor for a business to adopt technology.

- Literature by AlGhamdi (2012) emphasises the availability of the internet as a key component for the strength of Information Technology infrastructure. Literature by Wang, Wang and Yang (2010) shows that IT infrastructure and skills will provide the platform on which new technology can be built. Adopting new technology will require additional Information Technology skills, IT components and adaption to the existing system. This would require the commitment of additional financial and technological resources. Businesses that are not compatible will not adopt the relevant technology easily thereby losing favour with customers (Banyte and Salickaite, 2008). The study by Zhu and Kraemer (2005) concluded that businesses with greater e-commerce capabilities (Information Technology infrastructure and integration) are positively associated with increased benefits of e-commerce value. Technology that delivers information to the consumer on products at an affordable price is one way to increase retailer favour (Doyle, 2010). This requires knowing what consumers want and having a mix of product options. Malls don’t need to lose business to online e-businesses. Having an understanding of consumer’s use of technology can help retailers direct consumers into malls. Malls don’t need to become threatened by the online space. Businesses need to understand how

to adapt to the evolving global economy, communications technology and consumer behaviour (Doyle, 2010).

In countries such as Malaysia, Information Technology infrastructure is under-developed (AlGhamdi, 2012). In such countries, the diffusion of computers is low and online facilities and services is relatively low. This is in comparison to developed countries where Information Technology infrastructure is perceived as a very high cost of contributing to the national development of e-commerce (IT News Africa, 2015). Saudi Arabia is a country which had overcome this problem by recognising the importance of adopting e-commerce technology (AlGhamdi, 2012). Where only 5% of users of the population in Saudi Arabia were internet users in 2001, this number increased to 46% in 2012. This occurred when mobile broadband subscriptions reached 11.5 million users, representing a penetration of 40.5% of the population (AlGhamdi, 2012). Shopping online in South Africa is on the rise with 50% of shoppers who own a phone with smart capabilities having used it to shop online and 21% expected to do so in the future, according to Ipsos' research (IT News Africa, 2015).

Ndayizigamiye (2012) indicates that there was an increase South Africa's Internet users from 8.5 million users in 2011 to more than 28.5 million in 2016. This accounted for 52% of the country's total population (Internet Live Stats, 2016). This suggests that there is a market for e-marketing. Where businesses evaluate their adoption of technology based on the above mentioned factors, the role of the consumer is also crucial. However, this has been disregarded in the literature as an influence. Consumers continue to frequent stores offering promotions and discounts even if the actual frequency of visits to the store had decreased (Patterson, 2015). Stores which advertise repeatedly their specials attract more consumers. This increases the interest of their product offerings and consumer spending (Patterson, 2015). The motivation is therefore to consider this as a factor and it is provided in this review by considering how consumers spend their money on products and what leads to them maximising their satisfaction. Such satisfaction will increase store loyalty and reinforce the intention to purchase for the future (Hasan and Mishra, 2015). It is important to establish how businesses satisfy consumer needs to develop patronage. Furthermore, understanding what might differentiate businesses in the minds of consumers is

significant. Establishing what consumer needs create a comprehensive online and in-store strategy can maximizes the benefit to the consumer.

2.6 The influence of consumers on strategy formulation to create online and in-store benefits

Bicen and Madhavaram (2013) explain that discount offers by businesses is ranked highly as a promotion initiative for achieving top-performance. Consumers who have an interest in the economic value and cost saving aspects of the purchases they make, in turn build stronger repeat purchase practices. This increases loyalty with comparative evaluations on price and variety with businesses (Oliver and Shor, 2003; Abdul-Rahman, 2010; Khan and Rizvi, 2011; Andrews, et al., 2014; Išoraitė, 2015). However monetary factors are not the only motivating drivers for purchase decisions. Positive feelings of satisfaction, happiness, goal attainment and appreciation are also identified as attributes associated with getting a discount (Bicen and Madhavaram, 2013). This contributes to word-of-mouth endorsements by the consumer for the retailer from which the commodities were obtained. Consumers who are determined to obtain a bargain will be involved in an elaborate and determined search for the best price (Bicen and Madhavaram, 2013).

Consumers want convenience and efficiency in shopping, and stores which offer this are viewed as more promising. The manner in which the store positions itself, even where facilities and technology is concerned, will determine the type of loyalty consumers develop (Hasan and Mishra, 2015). Stores can use their service offerings, ease of shopping experiences and efficiency in communicating promotions to differentiate themselves from their competitors (Hasan and Mishra, 2015). This fits well with the concept of relative advantage mentioned previously under diffusion of innovation theory (Rogers, 1995) where relative advantage for the consumer is based on price and convenience. Consumers who perceive online shopping as advantageous, will more likely adopt the technology that affords them the ability to find lower priced goods, and strengthen their patronage towards stores that engage with such technology (Beauchamp and Ponder, 2010; AlGhamdi, 2012).

Michael (2006) provided that the decision for consumers to shop online included:

- Efficiency and ease of access;
- The swift ability to find items efficiently;
- Time-saving;
- Competitive prices; and
- The capability to compare prices.

The above reasons allow consumers control of information to pace themselves in making informed decisions on commodities or services that are sort. Both online marketing and the traditional marketplace should allow businesses to compete with each other to offer maximum benefit to the consumer (Michael, 2006). The Internet provides a useful platform to make comparisons on price. Consumers cite this as one of the reasons why they shopped online. With the increasing saturation of product offerings online, consumers need efficient access to information that will aid their purchase experience (Michael, 2006).

Consumer loyalty contributes to the survival of businesses against intense competition especially at malls. But loyalty is not only derived from the consumer; stores also develop a degree of loyalty towards the malls it serves as malls develop a sustainable competitive advantage through promotional efforts. Both entities are viewed as crucial to the other in attracting interested consumers (Majumdar, 2005).

The market is characterised by uniform products, and adding convenience is one way for businesses to offer differentiation over competitors. Businesses need to distinguish themselves in the minds of consumers. Whether the consumer opts to shop in the traditional store or online, they seek convenience in terms of time and costs saved (Beauchamp and Ponder, 2010). Service convenience and retail convenience has relevance here and will be discussed briefly.

- Service convenience identifies “time and effort perceptions related to buying or using a service” (Beauchamp and Ponder, 2010, p.51). While service convenience applies to both online and traditional environments of shopping, retail convenience applies only to retail circumstances.

- Retail convenience values “the time and effort costs associated with shopping in a retail environment” (Beauchamp and Ponder, 2010, p.51).

Convenience to the consumer has value in terms of four different levels of service, that is applicable for both the online (such as websites) and traditional retail (i.e. the brick-and-mortar setting) shopping environments (Beauchamp and Ponder, 2010):

a) Access convenience considers the “speed and ease of accessibility offered to the consumer” (Beauchamp and Ponder, 2010, p.52). For the traditional retail environment, access convenience may include (Beauchamp and Ponder, 2010):
    - The physical location of the outlet which is easily accessed;
    - Available staff;
    - Reachable contact information; and
    - Available through technology such as websites.

    It should minimise the overall travel costs for the consumer in such ways as having more than one available store and having stores near other frequently visited outlets. For online-retailing-access-convenience, store location does not matter. Online offers access at any part of the day, and provides value to the consumer in the form of time-saving benefits for travel (Beauchamp and Ponder, 2010).

b) Search convenience provides consumers with “increased speed and ease to identify products they wish to purchase” (Beauchamp and Ponder, 2010, p.52). For traditional businesses, the following are important (Beauchamp and Ponder, 2010):
    - Store layout and design;
    - Product displays;
    - Signage; and
    - Knowledge of sales staff.

    These are critical in guiding the consumer through the shopping process and

helping consumers arrive at a decision to purchase. Valuable time is easily lost when consumers don't know exactly where products are located in stores, on shelves, or when sales agents are not informed to assist the consumer swiftly (Beauchamp and Ponder, 2010; Fan and Tsai, 2010).

For online businesses, search convenience is facilitated through the design of a website. This should provide easy navigation and quick search features to assist consumers find exactly what they want. Shelf space is non-existent and e-businesses can offer a variety of products with detailed information. The time-saving factor is significant allowing consumers to quickly move through products that are not of interest. It should also allow comparison of products consumers are interested in, thereby facilitating an informed shopping experience (AlGhamdi, 2012; Beauchamp and Ponder, 2010; Fan and Tsai, 2010).

c) Transaction convenience involves the "speed and ease with which consumers can effect or amend transactions" (Beauchamp and Ponder, 2010, p.53). In the traditional retail, waiting in queues and long processes for checking out the product needs to be minimised. For online businesses, physical queues are non existent. The virtual 'check-out' function is immediate. This increases the preference for consumers to choose the online methods for shopping (Beauchamp and Ponder, 2010).

d) Possession convenience makes reference to the "speed and ease with which consumers obtain the desired product" (Beauchamp and Ponder, 2010, p.53). For traditional businesses, a strong benefit is the immediate satisfaction of leaving the store with the desired product. The task of driving to the outlet to purchase the product is outweighed by the fulfilment of leaving the store with the product. Consumers who value possession convenience prefer traditional retail shopping to online. For online businesses, consumers need to wait for the order to be processed and delivery of the product may take a few days (Beauchamp and Ponder, 2010).

Businesses often lack the knowledge about the type of convenience that consumer's value. Although money is a constraint to the consumer, other equally valued constraints of knowledge and time affect the shopping patterns of consumers (Beauchamp and Ponder, 2010). The drawbacks of shopping online include:

- Finding the right websites that offer the products;
- Ensuring the transaction is secure;
- Waiting for pages to load if there is a weak internet connection;
- Navigating through websites that all offer the same products; and
- Waiting for the delivery of the product.

This process normally takes place without having the full sensory experience of seeing, touching or interacting with the product before purchase. This often leads to a high number of unsatisfied consumers (Beauchamp and Ponder, 2010; Fan and Tsai, 2010).

The key influences in stimulating the escalated interest in online shopping include (Beauchamp and Ponder, 2010):

- A cost-saving factor of fuel usage in driving from one store to another;
- The need to dedicate more time towards family and friends; and
- Work demands which erode into regular personal schedules.

Benefit to the consumers must be maximised. Convenience and delivery of satisfying results which maximises consumers time online is one way to achieve this. Knowing this, businesses can create a comprehensive integrated online and in-store convenience strategy that maximises the benefit to the consumer (Michael, 2006). Consumers want comparably lower prices with a choice of where to spend their money (online or in traditional establishments) (Michael, 2006). As a result of the gaps that exist in online and traditional shopping environments, businesses adoption of technology is also influenced by consumers shopping motives. The key is to understand how businesses can focus on creating and delivering better prices for consumers, which increases convenience for the consumer (Beauchamp and Ponder, 2010).

2.7 Traditional Versus Online Shopping

New opportunities for selling have been explored with the development of new marketing platforms in advertising. Visual broadcasting has taken on new forms such as internet platforms in channels such as YouTube, or banner advertising on high traffic websites. Traditional print advertising is also supplemented and to an extent been replaced by websites (Shima and Varfan, 2008). In this digital age, online mediums of advertising are perceived as convenient avenues for achieving marketing objectives.

Karayanni (2003) ascertained that the main differences between online shoppers and those consumers who opted for the traditional shopping experience was their 'shopping motives.' Time efficiency and the evasion of unnecessary queues differentiated the two target segments. This is not to say that traditional shoppers have more time than online shoppers. Though, certain luxury products or high investment, such as electronic goods, do require a higher degree of involvement before the purchase decision (Karayanni, 2003; Beauchamp and Ponder, 2010). There is power in knowledge and access to information can shift the balance of bargaining power to the consumer. Consumers who leverage this power become more confident and sophisticated in their shopping. They develop an ability to stretch their spending by exploring substitute and comparative products. Consumers needs fuel the market place with bargains (Michael, 2006; Fan and Tsai, 2010).

Kotler and Keller (2013) provide the four P's Marketing Mix Theory. This describes the 'Product', 'Price', 'Place' and 'Promotion' as four important variables in marketing. This review will attempt to understand how businesses influence the consumer's response and develop differentiation. Using Kotler's (2013) 4P's Marketing Mix Theory, traditional and online forms of marketing are presented below to understand the traditional and online retail marketing differences. These when presented together will help identify gaps that exist in both segments. Knowing the strengths of both traditional and online advertising can help businesses formulate more effective marketing strategies (Mahajan, 2013; Shima and Varfan, 2008).

‘Product’ in traditional marketing is the physical item with which the consumer can interact in the traditional store space. Products are limited to the store capacity. Personalised interaction from store personnel forms part of the product purchase experience. This enhances the value derived in purchasing the product (Shima and Varfan, 2008). The tangible product in the traditional shopping experience invites the consumer to a sensory experience. Online mediums of advertising create the opportunity for consumers to interact with the advertising platform and learn more about the product and company (Sekaran and Bougie, 2015). The actual physical product which is offered in the traditional market space is replaced with a product portfolio online. This comprises a visual (either animated or static) with relevant information to make the product more attractive to the consumer. Sensory aspects such as feeling, smelling or interacting with the actual product is removed in the online channel (Sekaran and Bougie, 2015). Online shopping may create doubts towards the purchase decision where the sensory experience is lacking. A wider range of products are available online, not limited to store space as is the case with traditional store settings. More engaging (face-to-face) and personalised consumer service may be offered in traditional store environments. Online support may be faster but it may be more impersonal. Warranties are offered in both traditional and online shopping environments which provide peace-of-mind in more risky online purchase decisions (Shima and Varfan, 2008).

With the ability to quickly compare prices online, price transparency is an important element in online advertising. Online advertising is cost-effective because it reduces store space and staff costs. Payment gateways offer quick, safe and efficient transaction methods, which by virtue of its automated process, reduces administration work for the company. Lower prices are possible with online shopping contributing to cost savings passed onto the consumer (Khan and Rizvi, 2011). This is further supported with competition from other similar products which places consumers only a click away from searching for the best price online. However, many consumers have reservations about security of transaction payments online. With traditional environments, where the consumer issues cash for payment transactions, there is a greater sense on control, with lower perception of risk (Jones, Malczyk and Beneke, 2011).

The location (place) of the store can impact on sales. Traditional stores have operating hours for business, whereas online stores operate at any hour of the day with a wider geographical presence. Stand-alone stores have different operating times compared to mall-based stores. Profitability is determined by the hours of operation and the location of the store (Khan and Rizvi, 2011). ‘Place’ may also be in relation geographically of a store from its competitors. The internet offers a large market space allowing people access to products at any time, and anywhere (Michael, 2006). The use of music, colour and smell creates the ambient appeal of a store lures consumers physically into the store. Online media have attempted to mimic this but without appealing to all senses, as the sense of smell and touch are difficult to imitate online (Shima and Varfan, 2008).

Promotion in the form of marketing communications may involve, but not limited to, sales promotion and advertising. Promotional tools such as online offers, banner adverts and email reminders entice consumers to frequent company websites. Well-designed company websites that deliver messages about the products offered and the company, attract consumers in the target group (Jones, Malczyk and Beneke, 2011). Traditional store environments create better spaces for personalised service which merges the needs of the consumers and the company together in mutual satisfaction. This is the case with face-to-face service and public relations in which the sales person is able to remedy a situation swiftly preventing bad publicity. The reassurance from physical interaction cannot be underestimated, as it helps build better relationships with consumers (Andrews and Currim, 2004).

The Internet offers swift communication of messages. Advertisements may be active online at any hour of the day, whereas traditional advertising delivers attention of the message to the consumer for a specific time (either in a television advertisement segment, radio advertisement segment, or in-store promotion to consumers shopping at that time). Tools of promotion online allow certain complex information to be accessed in ways that traditional environments cannot facilitate (S'Gara, 2014). Accessibility is therefore a favourable aspect for online options for promotion. However, information may constantly need to be updated and maintenance of a website can be costly, time-consuming, unless it is handled through a third party.

Consumers want to save time and money, so website design, navigation and features which enhance the shopping experience increase the opportunity of interaction from the targeted group. Traditional environments provide a more human-interaction element which is also important to consumers (Jones, Malczyk and Beneke, 2011; Khan and Rizvi, 2011).

Beauchamp and Ponder (2010) and Andrews and Currim (2004) identify the following drawbacks of traditional shopping:

- Identifying the retail location;
- Travelling to the location;
- Finding parking space;
- Searching through the store to find the product required;
- Time constraints;
- Whether the item is in stock at that specific store
- Finding stores that have the same products for easy comparison.

Engaging further in this way will extend the shopping experience which will not only consume more time, but will also be physically exhausting for the consumer. For consumers to enjoy their shopping experience, businesses need to support the access and search for information which would lead to consumer satisfaction (Beauchamp and Ponder, 2010).

All of the literature considered thus far considers the contributing factors that businesses need to acknowledge in the adoption of new technology to deliver cost-savings to the consumer. Yet, these are considered separately in literature. A desktop search conducted by the investigator combining the keywords ‘business’, ‘e-marketing’, ‘consumer’, ‘price’, ‘discount’, ‘e-readiness’ and ‘South Africa’. From Google Scholar (2016) 76 results were returned. Similarly, a search conducted by the researcher on a research database called Business Source Complete (2016), through EBSCO host (2016), with the aforementioned keywords revealed 2028 results. The first 500 results were searched in this case, and all 76 results were searched from the Google Scholar (2016) results. Another research database called Emerald Insight

(2016) was used with the aforementioned keywords. It returned 185 results. The investigator searched all 185 results. It was found that there were no South African studies that demonstrated how businesses adopt e-marketing channels to direct consumers find discounted products, especially with businesses that demonstrate electronic readiness (AlGhamdi, 2012).

2.8 Consumer convenience online and in traditional mall environments as an additional factor to businesses adopting technology

Some consumers want the physical experience of viewing the product and and experiencing the different sensations it offers. Consumers visit shopping malls for different reasons. These include socialising and leisure, entertainment and dining, and shopping. In seeking a convenient and enjoyable shopping experience, consumers evaluate the shopping mall offerings and its ability to satisfy their shopping experience and needs (Ali, 2013).

Having a variety of services that meet consumers needs, shopping malls provide comfortable spaces with adequate parking, security and cleanliness that contribute to the attractiveness of the mall. Shopping motivation is influenced by consumer behaviour with regard to a thrill seeking aspect, escapism, and socialising. Shopping malls have various offerings that allow consumers opportunities to buy and draw comparisons between goods and services offered (Newman and Patel, 2004). Where stores do not offer a variety of commodity options, it may negatively impact on the perception consumers have of those stores, such that consumers would seek stores where they have more knowledge of the merchandise variety and how it satisfies their needs (Thang and Tan, 2003; Newman and Patel, 2004). Factors such as quality and price are important in building loyalty. The design of a mall also contributes to a delightful shopping experience in terms of comfort and convenience with consumers being able to find commodities between stores easily. Space utilisation also contributes to the atmosphere created which in turn gives a positive relationship on excitements and the desire to stay in the mall (Beauchamp and Ponder, 2010; Ali, 2013).

Chebat, Hedhli and Sirgy (2009) demonstrated that consumers who have a high

loyalty for a specific mall also revealed strengthened loyalty for the retail stores at that mall. The strengthened patronage which consumers develop with a specific shopping mall has a direct influence on foot-traffic into stores operating within that centre. It is also not enough for businesses in a store to view their business as independent from other businesses in the mall. To avert a decline in patronage, businesses need to have a greater awareness of what other stores are doing in the same mall setting (Majumdar, 2005). This will help businesses develop better strategies that enhance loyalty. Having store promotional strategies aligned with mall management activities increases consumer loyalty. This is as a result of both the mall and stores being perceived as a unified entity (Majumdar, 2005).

Though online shopping proves to be more affordable, it may leave consumers dissatisfied. This occurs when products are returned which did not meet the consumer's expectations (Newman and Patel, 2004). Such is the case where the fit of clothing presents a challenge. The online purchase experience may save the consumer time. However, not having interacted with the product in terms of feel and use of features, sometimes leaves consumers cautious about repeat purchases. The online shopping experience needs to be a pleasant one, delivering as much useful information to the user to ensure they don't abandon the online shopping session (Majumdar, 2005; Wallace, 2013). Eighty eight (88%) percent of shoppers in 2013 abandoned their shopping experience because they did not have a pleasant experience. An example of a business which caters for shopper's wide variety of preferences, at affordable prices through a transparent process in Amazon.com (Wallace, 2013).

Wallace (2013) mentions a study conducted by Sue Pizarro in 2013 on UPS, presented at the Utah Small Business Summit, where 3000 regular online shoppers where surveyed. An overwhelming 86% were willing to engage in repeat purchases if the businesses advertising provide a better experience (Wallace, 2013). In the same survey, though 70% of respondents preferred the online search avenues. It was further cited that 30% opted for regular mall visits. However, both respondents prefered an integration and smooth experience for bargain finding, but opted for one over the other with the non-existence of platforms that intergrate the two. These respondents

believed that there are opportunities still avaliable for improving online shopping (Wallace, 2013).

Having demonstrated that there is an incentive to use better online platforms for delivering savings to the customer, this study will explore the factors that businesses in the traditional shopping mall environment would consider in using discount websites.

2.9 Summary

This chapter provided a review of both the literature and theoretical framework that supports this study. Key aspects of the literature such as e-commerce is identified as a significant aspect in ensuring the successful use of discount website advertising. Factors which influence whether the business will adopt or not adopt e-commerce is also presented. The benefits and drawbacks of online and traditional forms of marketing are mentioned. With the increasing number of internet users, South Africa presents a potential market for the successful implementation of ODIs among businesses. This chapter hence provided a grounding for the current study. The next chapter (3) discusses the methodology undertaken. The research objectives are re-visited to understand how the methodology will aim to fulfil them. Respondent information, the population sampled and the data collection strategy will also be explained. The research design is also briefly explained.

Chapter 3
Research Methodology

3.1 Introduction

This chapter outlines the methodological approach undertaken in the study. The chapter begins with a description of the research design. Paradigms, approaches and methodology will be explained to provide a supportive rational on the choice of research methodology for the current study. As a quantitative study, the research followed a descriptive design. The quantitative methodology is further detailed in this chapter.

3.2 Research Objectives and Questions

A recap of the research objectives and questions are hereby shown as a means of providing an understanding of the appropriate methodology required to fulfil them.

The research questions to be answered by the study are:

- What are the current business practice of using ODIs at businesses located in shopping malls in Durban (KwaZulu-Natal)?
- What are the factors influencing the use of ODIs by business in shopping malls in Durban?
- What are the possibilities and challenges for business in the adoption of ODIs?

In light of the research questions, the objectives of the study are:

- To determine the current business practice of using ODIs at businesses located in shopping malls in Durban (KwaZulu-Natal)
- To investigate the factors influencing the use of ODIs by business in shopping malls
- To investigate the possibilities and challenges for business in the adoption of ODIs

The study aims to gather information on the perceptions of owners and managers of businesses in shopping malls in Durban, in relation to the above listed research questions and objectives.

3.3 The Research Method

The study employs a quantitative research approach. The quantitative scope of inquiry involves addressing specific questions or hypotheses and analysing data descriptively or inferentially. The research is not exploratory because research on e-commerce is widely available (Brdesee, 2013). However, with the intention of seeking to explain the factors that influence the use of discount websites by businesses in a shopping mall, the research is classified as descriptive.

3.3.1 Location of the Study

The study was based in Ethekwini (Durban) situated within the province of KwaZulu-Natal in the country of South Africa.

3.3.2 Respondents

The respondents for the study were made up of businesses situated in 4 prominent shopping malls in Durban. A brief overview of each mall is provided below:

- Mall 1

A three-levelled shopping mall in the south coast of KwaZulu-Natal. This mall consists of a variety of retail stores, exclusive boutique stores, local and top international brands in fashion. It also has banking facilities, travel centres, speciality stores and dinning outlets. It has atleast seven anchor tenants. There are various entertainment facilities for children and adults on the premises. It is accessible off the intersection of the N2 freeway.

- Mall 2

A shopping mall consisting of two levels in the northern suburbs of KwaZulu-Natal. This mall is comprised of retail outlets, upmarket and high-end fashion and beauty stores, restaurant and dining outlets. It also has travel services, banking institutions, and speciality stores. It has atleast twelve anchor tenants. It is accessible off the M4 intersection or from the N2 in Umhlanga.

- Mall 3

A uniquely designed shopping mall which is conveniently located off the N2 freeway in the north coast of KwaZulu-Natal. It has three shopping levels with a bulk of the retail stores situated on the ground level. It consists of at least three anchor tenants. It has many national and international tenants in the mix of stores. Parking is almost immediately outside the store customers intend visiting adds to the high visibility feature of security at the mall.

- Mall 4

A mall located in the suburbs of Berea offering a variety of stores. It had atleast one anchor store, banking facilities, and hair and beauty services. It also has hardware and home services, lifestyle and wellness services, coffee and dining outlets. It has a multinational mix of tenants with many local businesses. It is two kilometre drive off the N3 highway entering Durban.

3.3.3 Sampling

The practicality of different sampling methods needs to be considered. Sekaran and Bougie (2015, p.398) suggest that sampling is a statistical process of obtaining data from a representative population. The population is the “entire group of people, events or things that the researcher desires to investigate” (Sekaran and Bougie, 2015, p.396). There are two main sampling designs: probability and non-probability sampling.

In probability sampling, all segments of a population have an equal chance of being selected. The sample subjects are selected through a random process of selection. With non-probability sampling, the segments of a population do not have a predetermined chance of being selected as sample subjects (Sekaran and Bougie, 2015). Non-probability sampling methods such as convenience sampling and purposive sampling allows an inexpensive and quick way to draw samples. This is especially useful where time is unfavourable. The disadvantage is that there isn't any guarantee that each segment will be represented.

Hashim (2010) provides guidelines for selecting a sample size (n) where N represents the population size, as shown in the table 3 below:

N-----n	N-----n	N-----n	N-----n	N-----n
10-----10	100-----80	280-----162	800-----260	2800-----338
15-----14	110-----86	290-----165	850-----265	3000-----341
20-----19	120-----92	300-----169	900-----269	3500-----346
25-----24	130-----97	320-----175	950-----274	4000-----351
30-----28	140-----103	340-----181	1000-----278	4500-----354
35-----32	150-----108	360-----186	1100-----285	5000-----357
40-----36	160-----113	380-----191	1200-----291	6000-----361
45-----40	170-----118	400-----196	1300-----297	7000-----364
50-----44	180-----123	420-----201	1400-----302	8000-----367
55-----48	190-----127	440-----205	1500-----306	9000-----368
60-----52	200-----132	460-----210	1600-----310	10000-----370
65-----56	210-----136	480-----214	1700-----313	15000-----375
70-----59	220-----140	500-----217	1800-----317	20000-----377
75-----63	230-----144	550-----226	1900-----320	30000-----379
80-----66	240-----148	600-----234	2000-----322	40000-----380
85-----70	250-----152	650-----242	2200-----327	50000-----381
90-----73	260-----155	700-----248	2400-----331	75000-----382
95-----76	270-----159	750-----254	2600-----335	100000-----384

Table 3: Required sample size, given a finite population

Source: Hashim (2010, p.15)

In the current study, the sample consists of the individual stores which were approached in the shopping mall to measure the larger population of businesses. The survey data was gathered from 105 store outlets at 4 shopping malls in the Durban area. This was out of a population size of 140 outlets that had managers on duty. Purposeful sampling is therefore adopted as the malls selected were spread across the Durban area in the north coast, south coast and CBD areas. The respondents will be either the managers or owners of stores within the 4 participating malls.

The sample size will be calculated using the following formula, shown in Table 4:

Approximate Number of stores targeted across 3 malls (Population = N)	**Confidence level = 95% Therefore e= 0.05**	**Sample size required using the formula: $(N/[1+N(e)^2])$**
140	0.05	103.7

Table 4: Sample size calculation

Source: Adapted from Sekaran and Bougie (2015) and Mpofu, Milne and Watkins-Mathys (2013)

Using the sample size formula, the number of businesses that can be used for the research to is 103.7, if 140 stores are considered, to ensure 95% confidence level is maintained.

Though there are approximately 350 outlets in total across the 4 malls, many were managed by a cashier. Cashiers were not aware of the adoption of e-commerce by the business. Only stores where managers or owners were present were asked to complete the survey. This provided more accurate information from higher ranking staff on e-commerce adoption in the business.

Only 35 stores out of the targeted 140 chose not to participate. Hence, the study achieved a response rate of 75% to the target sample. The characteristics of store product and service offerings varied. Not all the stores were identical as they do not have the same characteristics. A spectrum of categories from books and stationery,

computer, electronic and audio devices, curios, gifts and novelties were examined. Footwear, fashion and jewellery, health and beauty, food, grocery and restaurant outlets, furniture and deco stores, games, hobbies, and toy outlets to travel services were also among the stores surveyed. These covered different aspects of business sizes, length of establishment and e-commerce adoption. This was a representative sample and would allow the results to be generalised to the population.

3.3.3.1 Inclusion criteria

Inclusion criteria comprised owners or managers on duty at businesses at the four participating malls, who were available to complete the questionnaire. It was assumed that the higher ranking staff, such as a manager or owner, could provide the most reliable feedback on the adoption of e-commerce in the store or organisation.

3.3.3.2 Exclusion criteria

Exclusion criteria comprised businesses which did not have a manager on duty or owner. Managers or owners who did not want to participate in the study. Businesses such as banks and health practitioners (such as doctors) which would not make use of discount websites, were also excluded.

3.3.4 Data collection

Data may be collected using interviews or questionnaires. For this study a quantitative method of enquiry was used. Quantitative interviews are also called survey interviews. It involves the interviewer reading the questions and answers, usually closed ended formats, to the respondents rather than allowing the respondent complete the questionnaire on their own. Quantitative questionnaires can be used to gather data from large representative samples (Blackstone, 2016). Response rates tend to be higher with interviews than with mailed questionnaires. Confusion is reduced as the respondent is able to clarify the meaning of a question or answer option immediately. The disadvantage is interviews are time consuming, and more expensive than mailed questionnaires. Interviewer effect may also be introduced with the respondent

responding more favourably to questions in the presence of the interviewer (Blackstone, 2016).

Data was collected over a five day period. An average of eight hours was dedicated at each mall. Data was collected both through online and paper-based questionnaires. A printed version of the questionnaire and an electronic version were available for the store manager to complete. This allowed the researcher to reach larger sample groups at a lower cost than interacting with each respondent personally.

3.3.4.1 Cover sheet and Informed Consent for survey

The questionnaire for the current study included a covering page on both the printed and electronic versions. The purpose of the letter was to provide a background on the study and identify the purpose for the study. It also indicated through which institution the study is conducted and outlined the objectives of the study. An express appreciation for the respondents help was also provided. The estimated time of completion of questionnaire, encouraging the respondents to co-operate with honest feedback, was also stipulated. The informed consent section assured the respondent that the information provided would be managed with confidentiality. This allows the respondent to provide his support to participate in the study, having understood the nature of the study.

3.3.4.2 Online questionnaire

Some respondents had immediate access to the internet. Some malls had Wi-Fi enabled services. Some companies provided an internet connection for staff. These respondents opted to complete the online version of the questionnaire via the online survey tool known as QuestionPro®.

The online questionnaire was seamless. QuestionPro® is a web-based software that generates professional research questionnaires (QuestionPro Survey Software, 2016). Researchers can utilise it to create and distribute questionnaires efficiently. Results are available in real-time for analysis. The survey may be accessed on any computer or mobile device which has internet access. QuestionPro® is optimised for

display on mobile phones, tablets, laptops and company desktops (QuestionPro Survey Software, 2016).

Respondents who wished to complete the online version of the questionnaire were provided with the link to the online platform on QuestionPro®. Data was instantly captured onto the QuestionPro's electronic database. This could then be exported for statistical analysis.

3.3.4.3 Paper-based questionnaire

This method was used for those participants who did not have access to the internet. Questionnaires were hand delivered to respondents. The study was briefly explained to the potential participants. Simultaneously, queries from the potential participant were dealt with. As the sample comprised of many businesses in the same vicinity (the specific shopping mall), large amounts of questionnaires were distributed over a short period of time. Questionnaires were not posted as businesses were allowed to complete the approximate 20 minute questionnaire within a space of eight hours of the business day.

3.4 Research Design

3.4.1 Descriptive research design

The Association for Educational Communications and Technology (2001) explains that descriptive studies conveys the aspect of 'what is' within a specific study/research area (The Association for Educational Communications and Technology, 2001). Descriptive studies do not fit neatly into either quantitative or qualitative research methodologies. Observational and survey methods are used often in collecting descriptive data.

Survey research design is a type of descriptive research design. Data is sourced by through a series of questions. Conclusions are drawn about the population by surveying a sample of the population. Survey research designs in a business context are used to describe incidence, frequency and distribution of certain characteristics of

a population. It is suited for collecting information about opinions, attitudes, perceptions, intentions and expectations (Ndayizigamiye, 2012). Descriptive research analysis involves collecting quantitative data that can be visually represented as graphs, tables or charts. This helps the researcher understand the data distribution (Ndayizigamiye, 2012). Descriptive statistics will be appropriate in the current study in relation to the anticpated large mass of data that will be collected.

3.4.2 Questionnaire design

The format and content of the questionnaire was modelled against other studies which were conducted by Ndayizigamiye (2012) and AlGhamdi (2012). Some questions needed to be adapted to fit within the context of the current study. The structure of the questionnaire for the current study comprised closed questions and contingency questions.

3.4.2.1 Close- ended questions

Close-ended questions were structured as multiple choice options requesting the respondent to choose from a possible set of answers. These answers closely represented their viewpoint. The respondent would have to tick/select the appropriate answer/s. This has the advantage of restricting the responses to manageable and finite options. This makes it easy for the respondent to answer. It also makes the coding process easier. It allows more questions to be included in a short space of time. This allows more variables to be included.

There are disadvantages to this method. The first is that it does not allow for respondents to qualify the chosen response. The second is that it doesn't offer alternatives that would have not come to mind at the time of designing the questionnaire (Siniscalco and Auriat, 2005). The researcher for this study overcomes this by basing the content and structure of the questionnaire on other already administered questionnaires. These would have been approved for reliability and validity for similar studies.

3.4.2.2 Question guidelines

In formatting the questions for the current study, a few guidelines were adhered to. This aimed to minimise the confusion, misunderstanding, lack of comprehension and response bias of the respondent. The vocabulary retained was simple by avoiding acronyms, abbreviations, technical jargon, technical terms and abstract words. Where acronyms or abbreviations were used, it was spelt out in the questionnaire in the cover letter and again during the questionnaire. No ambiguous words were used.

Questions were kept short and easy to read. No double-barrelled questions were used such as questions that required two answers at the same time. No hypothetical questions were used. For more accurate and valid data collection, respondents would answer questions based on their past and present circumstances and opinions. Questions are not overtaxing in terms of thinking about a response. The researcher avoided overlapping categories. This was done to avoid questions becoming confusing.

3.4.2.3 Multiple choice questions

Multiple choice format questions were used as it elicits more useful information. It has greater versatility in measuring complex knowledge (Christensen, 2005). With multiple choice formats, large amounts of questions can be measured in a short time. It allows a large amount of respondents to be evaluated in a shorter time. Multiple choice allows scoring to be objective and reliably completed. It also allows respondents to discriminate among options that vary in correctness. Multiple choice formats of “Strongly Disagree”, “Disagree”, “Neutral”, “Agree” or “Strongly Agree” provides an equal number of positive and negative statements/options (Christensen, 2005).

3.4.2.4 Validity and Reliability

Likert scales is a frequently used attitude scaling technique and generally has 5 categories. The current studies 5 categories are “Strongly Disagree”, “Disagree”, “Neutral”, “Agree” or “Strongly Agree”. Using a matrix format allows the questions to be presented in a less repetitive format. It also reduces the length of the questionnaire in terms of structure. It creates an impression of a shorter questionnaire. This makes

it easier for the respondent to answer. Answers are constrained to the matrix range thus ensuring reliability and validity.

3.4.2.5 Contingency question format

The questionnaire also follows the contingency question format. It is a specific format of close-ended questions because it applies to a subgroup of respondents. The relevance of the subgroup is determined by asking a filter question. The filter question directs the subgroup to answer a specific section of questions and instructs other respondents to skip a section of the questionnaire.

3.4.2.6 Sub-sections of questionnaire

3.4.2.6.1 Section 1: General information and demographics

This section captures the respondent's age, their role in the business and the establishment of the business. It also captures the business product offerings, and basic e-commerce capability relating to the business offering for the customer.

3.4.2.6.2 Section 2: Information about e-commerce adoption (Part 1)

This section examines the businesses expectancy for areas of e-commerce. Certain businesses may have currently have e-commerce capabilities. This relates in part to the research objective 1 which examines the businesses adoption of e-commerce capabilities. These are the enabling determinants that support e-commerce adoption by the business.

3.4.2.6.3 Section 2: Information about e-commerce adoption (Part 2)

This section pertains to those businesses which have adopted e-commerce technology. It set out to examine the determinants (or factors) identified through the literature presented in Chapter 2 of this study, in e-commerce adoption among businesses. The selection of determinants was informed by the theoretical framework provided by the Diffusion of Innovation theory (Rogers, 1983).

3.4.2.6.4 Section 2: Information about e-commerce, specifically ODI's, adoption (Part 3)

This section examines attitudes of management in the adoption and use of online discount intermediaries (ODIs) as outlined in detail in Chapter 2.

3.4.2.6.5 Section 3: Information about perception of electronic commerce

This section focuses specifically on those businesses that have not adopted e-commerce in their business. It examines their perceptions and attitudes for not adopting e-commerce. Besides examining the inhibitors in this case, it also examines perceptions of these businesses towards discount websites, even though they may not be using e-commerce.

3.5 Anticipated data analysis

The data collected was analysed by a professional statistician whom the investigator worked closely with. The following tests were applied to the data

3.5.1 Reliability Analysis (Cronbach's Alpha)

Reliability is concerned with the ability of a scale or instrument to provide a consistent measure. In statistical terms, reliability produces consistent results with the overall questionnaire for sets of items. Cronbach's alpha is the most common measure of internal consistency. It is used in questionnaires that form a scale where one wishes to determine if the scale is reliable. Values of 0.7 - 0.8 is acceptable, and values substantially lower indicate an unreliable scale (Tavakol and Dennick, 2011).

3.5.2 Frequency analysis

Frequency analysis is part of descriptive statistics. Frequency is the number of times an event occurs. Frequency analysis deals with the number of occurrences (or frequency) (Greasley, 2008).

3.5.3 Chi-Square

Chi-square is used for testing hypotheses for discrete data. It applies a statistical test to cross-tabulation by comparing the actual observed frequencies in each cell of tables with expected frequencies. Expected frequencies are those we would expect if data is ‘randomly distributed’ (Foster, 2002).

3.5.4 Correlations

Correlation studies express the extent to which two variables – are related to each other. It involves the use of dependent and independent variables. Positive correlations are found when one variable increases and the other variable also increases. Negatives correlation are explained when one variable increases as the other decreases. Zero correlation means there is no relationship between the two variables (Foster, 2002).

3.6 Ethical considerations

There are four basic principles in ethical research:

- Autonomy: in entering the space of participants, the researcher needs to treat participants with dignity and respect.
- Non-maleficence: this speaks to notion of “doing no harm”. In gathering information, there should be no psychological or emotional invasiveness. The participants should not be vulnerable to harm.
- Beneficence: participants and society should benefit from the research conducted. Where risks are involved, participants need to make an informed decision to participate having a clear understanding of risks and benefits. And;
- Justice: the researcher needs to ensure fairness and equity throughout the study (Munro, 2011).

With respect to this study, the following is noted:

- The study did not access confidential information without the participants consent;

- Participants were not required to act in any manner which diminishes their self-respect;
- Survey questions did not lead to any harmful effects, that engage with the participants in a stressful manner;
- The information was not gathered or extracted in any manner of deception from the participants;
- The questions for the survey were informed by the research objectives. It was adapted from previous literature to ensure the instrument is reliable and valid;
- Participation was voluntary and confidentiality was protected;
- The purpose and nature of the research was disclosed to participants;
- Participants had the option to withdraw from the study at any time with no consequence to themselves;
- The benefits from participation were explained to the participants;
- A consent form of approval from the institution to conduct the research was provided;
- Mall managers were contacted (as they are the gate-keepers) of the stores, to obtain access to approach stores to participate in the study. A letter authorising permission from the mall centre management was obtained;
- Research data will be not be stored on any shared server to ensure it is protected. Information will be stored on various portable storage devices to ensure it is backed up (Access controlled to only the investigator);
- Where feedback to participants was necessary, it was done protecting anonymity of participants, and where necessary, using coded information; and;
- In terms of personal interest, the investigator has developed a website over the last 5 years which does not offer coupons that are redeemable at the store. Instead, it creates a platform for the advertising of current or future promotions. It has a mall search function which directs buyers to specific stores. This is intended to allow consumers to make informed decisions on the best products or services to purchase. Based on information for all stores listed on the website or at other malls offering similar products, consumers may save money. The website was not functional over the duration of the study, so the research was not conducted on that specific website. The

research was not done for personal gain. The research may broadly benefit anyone in this field.

3.7 Summary

The current study is quantitative and descriptive in nature. Questionnaires were used as the instrument for data collection. The respondents for the study were made up of 105 businesses situated in four shopping malls in Durban. The survey data was gathered from 105 store outlets out of a possible 140 outlets that had managers on duty. Thirty five stores out of the targeted 140 chose not to participate. Hence, the study achieved a response rate of 75% to the target population. Data was captured on QuestionPro®, coded and then captured into SPSS version 24.0 for analysis. Analyses of the results was in the form of both descriptive and inferential. The descriptive results of the analysis are presented in Chapter 4.

Chapter 4

Descriptive Statistics

4.1 Introduction

This chapter will present the frequency statistics only that were generated from the survey. This will form the descriptive arm of the statistics and will be presented in the form of tables and graphs. The purpose of this chapter is to provide the descriptive statistics to allow the reader to gain basic insight to the types of responses received. Furthermore, this chapter forms a support, in the form of a preliminary analysis, and will further inform the detailed (inferential) analysis and discussion which will follow in Chapter 5.

4.2 Response rate

The quantitative questionnaire was the primary tool that was used to collect data. There were 140 stores that were approached and these were targeted as the participants of the study. Out of the 140 participants, there were 105 that participated in this study. Hence, the response rate was 75%. The number of participants varied across the four Durban malls that were included in the study. The data collected from the responses was analysed with SPSS version 24.0.

4.3 The research instrument

The research instrument consisted of 47 items (questions and sub-questions), with a level of measurement at a nominal or an ordinal level. The questionnaire was divided into 5 sections which measured various themes as illustrated below:

- Biographical data (Section 1)
- Determinants (factors) that have influenced the decision to adopt commerce by businesses that have adopted e-commerce (Section 2 Part 1 and Part 2)
- Online Discount Intermediary (ODI) adoption (Section 2 Part 3)
- Perception of e-commerce by businesses that have not adopted e-commerce (Section 3)

4.4 Demographic and descriptive statistics

Descriptive statistics involves the organising and summarising of data using graphs, charts, and tables. Calculations of various descriptive measures and percentiles are used to explain the data (Singpurwalla, 2013).

4.4.1 Section 1: General demographic information

The pie chart below, Figure 3, shows the distribution of respondents by age, who participated in the survey. These were managers of various stores at each of the four shopping malls.

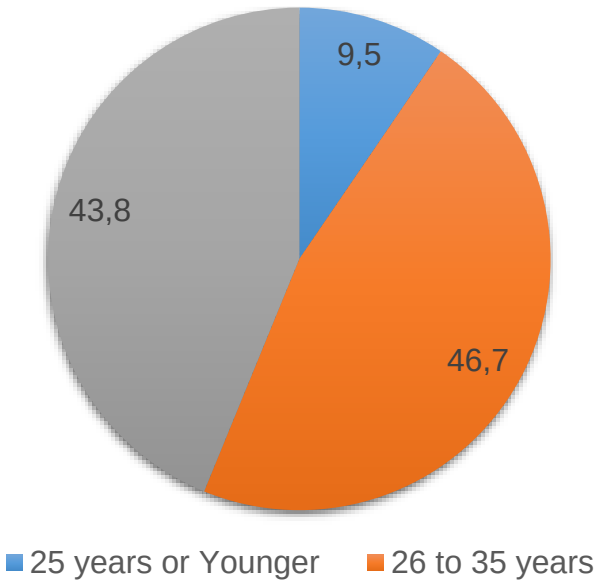

Figure 3: Distribution of respondents by age

A little less than half of the respondents (46.7%) were between the ages of 26 to 35 years, with approximately 44% being older than 35 years. This indicates that a fair proportion of the respondents are older. This can imply a high degree of work experience which in turn indicates that the responses gathered would have been from an informed (experienced) source.

Table 5 below illustrates, by means of frequency and percentage, each of the variables which were used under the demographics section of the questionnaire. It provides general information about each of the respondents in terms of their role in the

business. It also provides general information about the business itself in terms of its establishment and sector of product or service offering. Furthermore, it provides information about basic e-commerce facilities employed at the business.

The following table, Table 5, represents the demographic characteristics of the respondents.

Variable	**Classification of variable**	**Frequency**	**Percentage (%)**
Your role in the business:	Owner and Manager	14	13.3
	Owner	5	4.8
	Manager	86	81.9
	Total	105	100.0
The business is:	International	32	30.5
	National	41	39.0
	Local	32	30.5
	Total	105	100.0
How long has your business been established for?	Less than 1 year	9	8.6
	From 1 year to less than 5 years	24	22.9
	5 years or more	72	68.6
	Total	105	100.0
Which business sector best describes your company's primary business?	Footwear, fashion and jewellery	32	30.48
	Books and stationery	19	18.10
	Curios, gifts and novelties	19	18.10
	Health and Beauty	16	15.24
	Games, hobbies, and toys	16	15.24
	CD’s, Computer, Electronics and Audio	12	11.43

	Furniture and Deco	12	11.43
	Cell phones	11	10.48
	Food and Restaurant	9	8.57
	Travel	8	7.62
	Other	31	29.52
Which area/aspect of e-commerce is currently used by your business?	Customer payment by credit card through the company's website	39	37.1
	Placing orders over the Internet	38	36.2
	Other	5	4.8

Table 5: Demographic characteristics

The result shows that most of the respondents are managers (81.9%). This indicates seniority in the business and that most responses were based on 'managerial views'. A larger portion of businesses are national (39%) and an equal distribution are either local or international businesses (30.5% respectively). The majority of the business have been established for more than 5 years (68.6%). Approximately two-thirds (68.6%) of respondents were derived from businesses that had been in existence for at least 5 years. This indicates that most respondents were in organisations that had been in existence for a while.

Most businesses employ a customer payment facility through the businesses website (37.1%). Certain businesses allow customers to place orders over the internet (36.2%). A small percentage (4.8%) utilise other aspects of e-commerce. All of these capabilities indicate the presence of Information Technology infrastructure and capabilities within the businesses. There is an overlap between aspects of e-commerce used by the businesses. The bar chart distribution below, Figure 4, provides the percentage distribution of each of the sub-variables for the business sector.

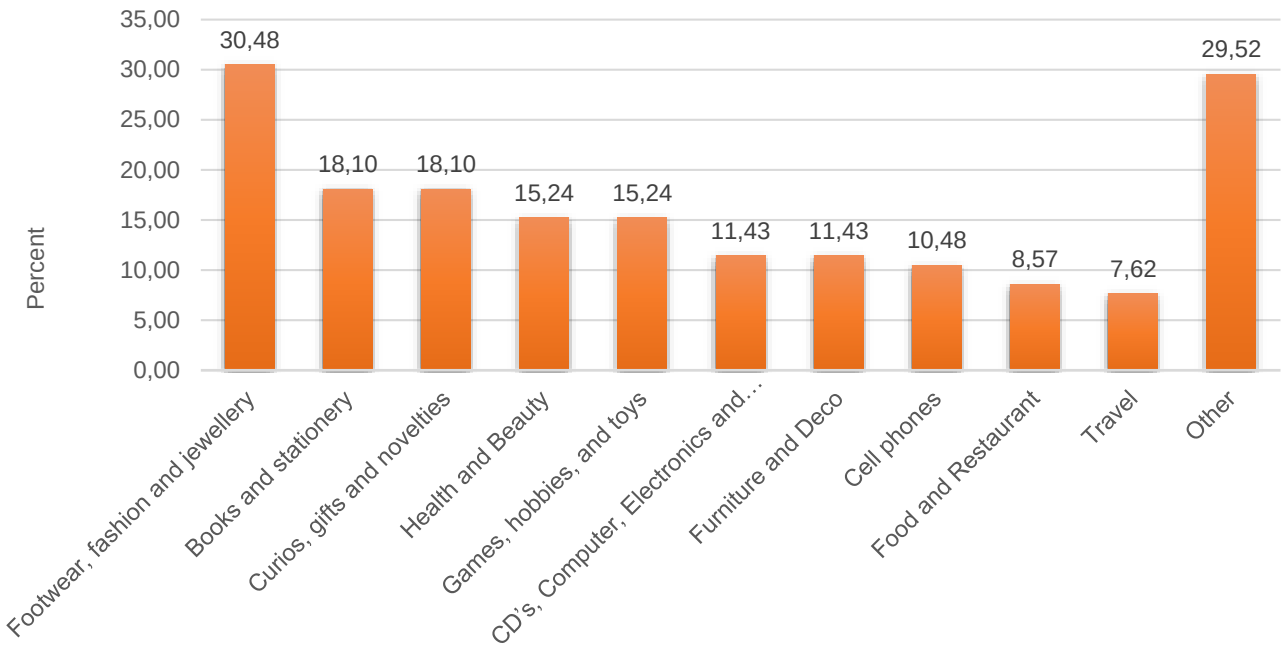

Figure 4: Distribution of sub-variables for the business sector that best describes surveyed businesses primary function

Figure 4 above shows the different areas of specialisation of the businesses that responded to the survey. This made up the sample for this study. A majority of businesses sampled where in the footwear, fashion and jewellery industry (30.48%) as well as "other" (29.52%). A lesser part were in the travel (7.62%) and food and restaurant industry (8.57%).

4.4.2 Section 2: Information about e-commerce adoption

4.4.2.1 Part 1: Analysis on the segment "When does your company expect to have the following e-commerce capabilities?"

The bar chart below, Figure 5, provides an illustration of the variables demonstrating e-commerce capabilities and 'when' the business plans to utilise it. A business may currently have the capability, or plan to have it in the future. In addition, there may be businesses that choose never to use it. The categories were broken down into the following:

- Have it now
- Will have it in a year

- Will have it in 3 years
- Will have it in more than 3 years
- Will never use it

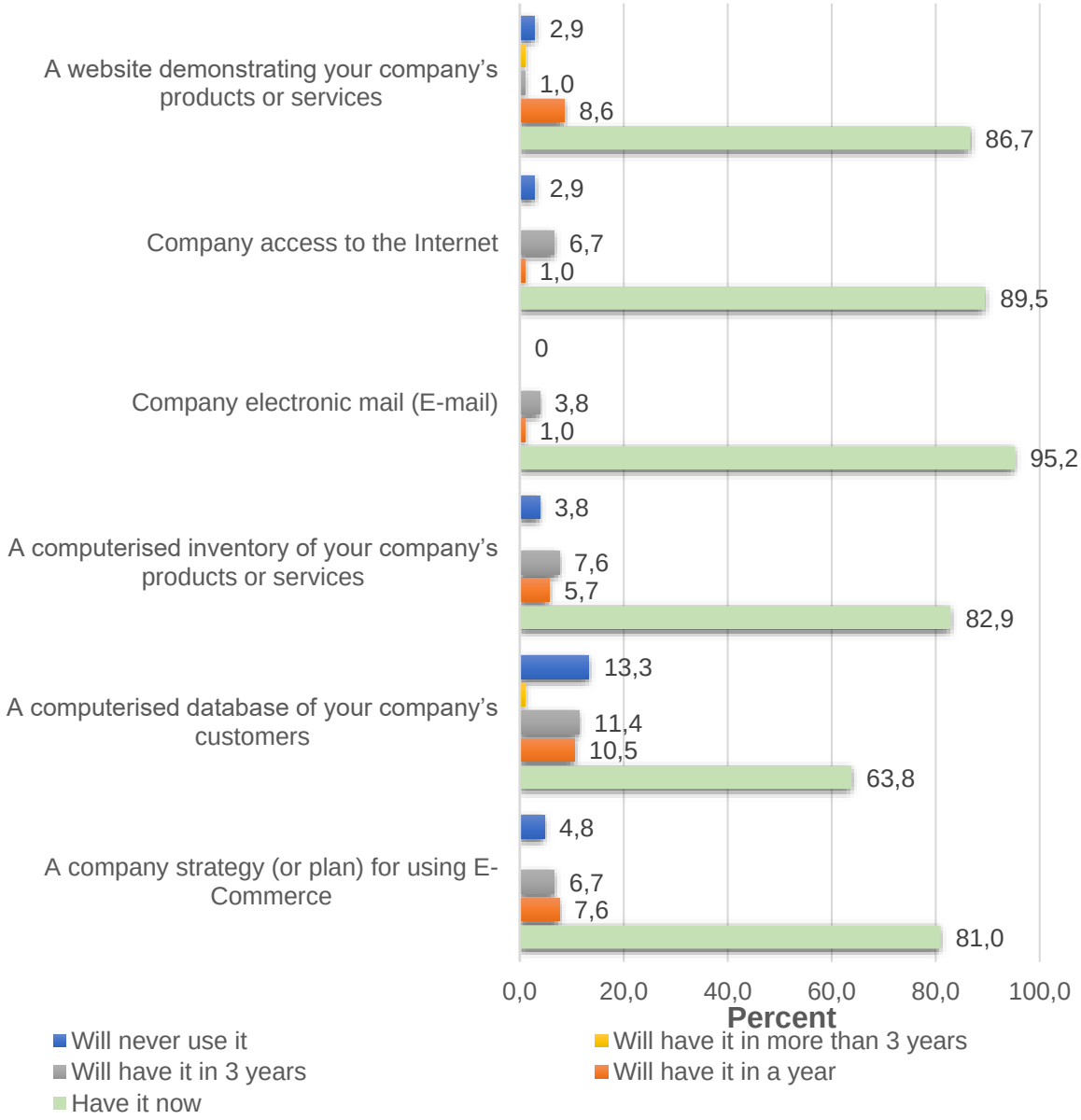

Figure 5: Possibility of businesses for certain e-commerce capabilities

There are high number of businesses which have adopted e-commerce, according to the identified variables which demonstrate e-commerce capabilities. A significantly high number of businesses have a plan for utilising e-commerce in their operation (81%). At present, a majority of these businesses have access to the business

electronic mail (95.2%). Many businesses also have access to the Internet (89.5%). All of these capabilities further support the presence of Information Technology infrastructure and capabilities within the businesses. It implies a foundation of organisational readiness to improve e-commerce. The literature strongly supports this as previous research proved that where organisations readiness was percieved as a dominant adoption factor, improvements in technology adoption levels were significant (Mehrtens, Cragg and Mills; 2001; Grandon and Pearson, 2004; Chong, et al., 2009).

Also significantly worthy of mentioning, 86.7% of businesses have website demonstrating the businesses product or service offering. This means that businesses may be interested in moving towards an online business structure. The presence of such front-end functionalities imply e-commerce enhanced capabilities in the business. This, together with the earlier mentioned e-mail and online payment facilities, demonstrates more technology competence in these businesses. It further implies the availability of Information Technology and human resources that can enhance e-commerce (Bradford and Florin, 2003; Zhu and Kraemer, 2005; Lee and Kim, 2007; Hung, et al., 2014). Based on the statistics shown, this number is set to increase in the next year for 8.6% of the businesses which are in the process of establishing a business website. This is still higher than the number of businesses which maintain a computerised database of its customers (63.8%). This number is expected to grow by 21.9% in the next 3 years (based on the statistics). However, it should be noted that 13.3% of businesses believe they will never have a need to keep a customer database.

4.4.2.2 Part 2: Analysis on the segment “Determinants (factors) have influenced the decision to adopt e-commerce in your company”

The determinants (or factors) influencing the decision to adopt e-commerce in the surveyed business, which have adopted e-commerce, was also examined. Figure 6 provides an illustration of this. A business may indicate their level of agreement (from strongly disagree to strongly agree), on how each factor impacted their decision to adopt e-commerce.

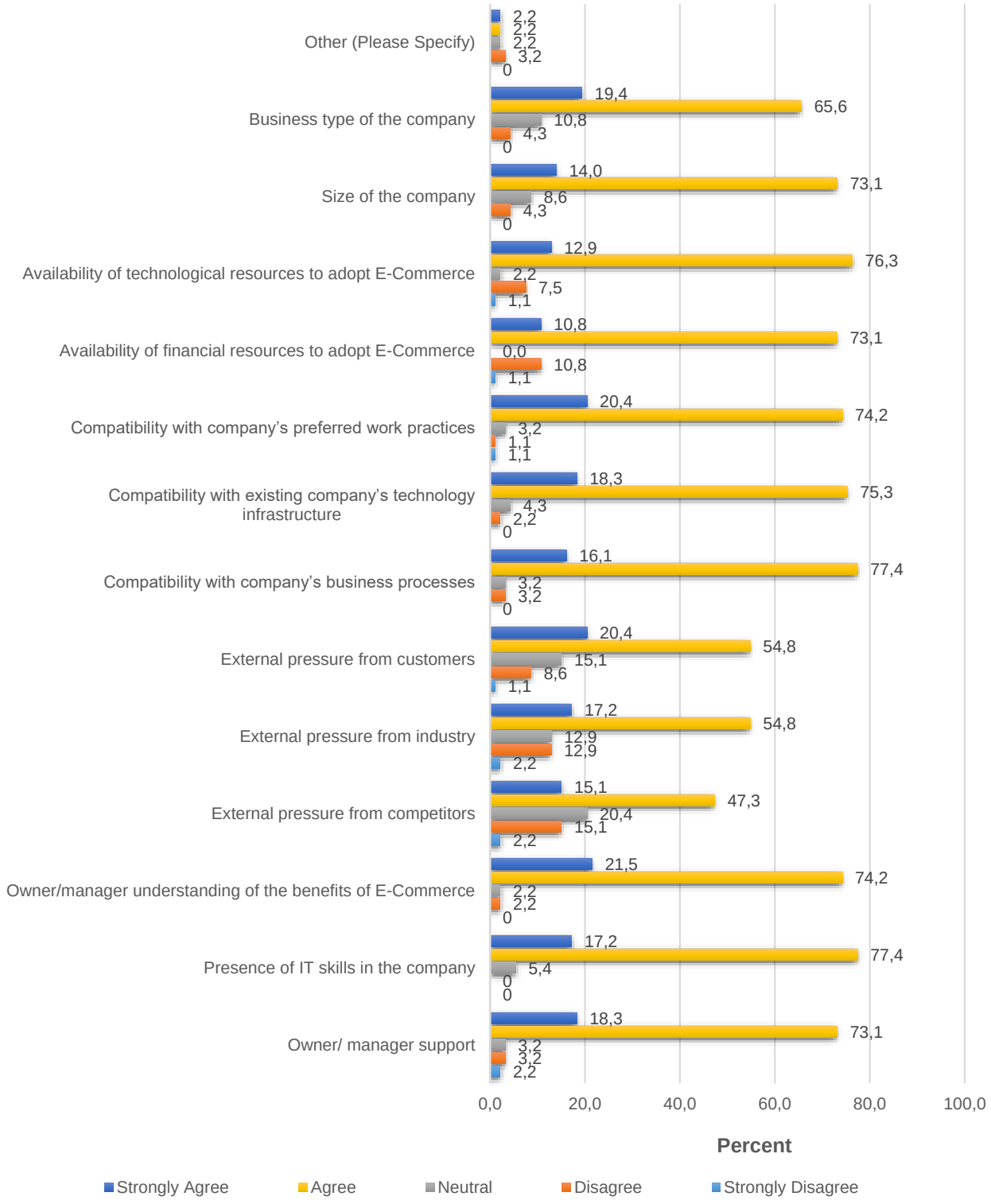

Figure 6: Factors influencing the decision to adopt e-commerce in the surveyed business which has adopted e-commerce

Support for the determinant that encourages the use of e-commerce was identified through respondents who have agreed and strongly agreed to the mentioned factor. The percentages quoted in the analysis that follows therefore considers the combined

responses of “agree” and “strongly agree” by the participants. Owners (or managers) (91.4%) are viewed as a significant determinant in the adoption of e-commerce in business related operations. This is consistent with the findings in previous literature (Chong, et al., 2009), which found that technology adoption is higher where managements support is available. It also corresponds with Brown and Russell (2007) that found management support to positively impact technology adoption. The understanding of the benefits of technology in business is evidenced by 95.7% of business population surveyed. This concurs with Jeyaraj, Rottman and Lacity (2006), who who found that managements understanding of technology lends support to the importance of computer technology. This is further supported by Caselli and Coleman (2001).

The presence of ‘Information Technology skills’ features high in these businesses (94.6%), and is identified as the second highest related determinant which influences the decision to adopt e-commerce. As above, this is consistent with the findings in previous literature (Brown and Russell, 2007; Chong, et al., 2009). Equivalently high (93.5%) is the compatibility that technology provides in supporting business processes. Findings by Wang, Wang and Yang (2010) reveal that high compatibility is identified as a facilitator for innovation adoption.

A large number of businesses (89.2%) view the availability of technological resources as important in adopting e-commerce. This is supported by literature by Zhu and Kraemer (2005), which found that firms with greater technology competence are more likely to achieve a greater e-business readiness. This is supported by a substantially high perception of technology being compatible (93.6%) with the businesses existing technological infrastructure. This corresponds with literature by Wang, Wang and Yang (2010). It provides that technology which is introduced in the business needs to be compatible with existing business infrastructure.

As identified by 87.1% of the population surveyed, the size of the business is crucial in e-commerce adoption. This concurs with findings by Aguila-Obra and Padilla-Mele´ndez (2006), which found that technology adoption is positively associated with the size of the organisation. An equivalently high percentage of respondents (83.9%)

viewed financial support as a significant determinant in the adoption of e-commerce. New technology adoption is shown to be dependent on the availability of financial resources that support this. This is evident in previous literature (Aguila-Obra and Padilla-Mele´ndez, 2006; Zhu, et al., 2006b; Chong, et al., 2009; Wang, Wang and Yang, 2010)

Businesses also view external pressure from customers (75.2%), industry (72%) and competitors (62.4%) to significantly impact on the decision to adopt e-commerce. External pressure (sometimes referred to as competitive pressure) is well recognised as an adaption motivator in the innovation adoption literature. This is supported by literature by Zhu and Kraemer (2005), Aguila-Obra and Padilla-Mele´ndez (2006), Lippert and Govindarajulu (2006), Zhu, et al. (2006) and Zhu, Kraemer and Xu (2006b), Chong, et al. (2009), Wang, Wang and Yang (2010) and Awa, Ukoha, and Emecheta (2012).

4.4.2.3 Part 3: Analysis on the segment "The level of agreement on the adoption of ODIs in your company"

The bar chart below, Figure 7, provides an illustration of the variables demonstrating the level of agreement (or disagreement) with the adoption of online discount intermediaries by the respondents that has adopted e-commerce. A business may indicate their level of agreement (from strongly disagree to strongly agree), on how each factor impacts their decision to adopt the use of discount websites.

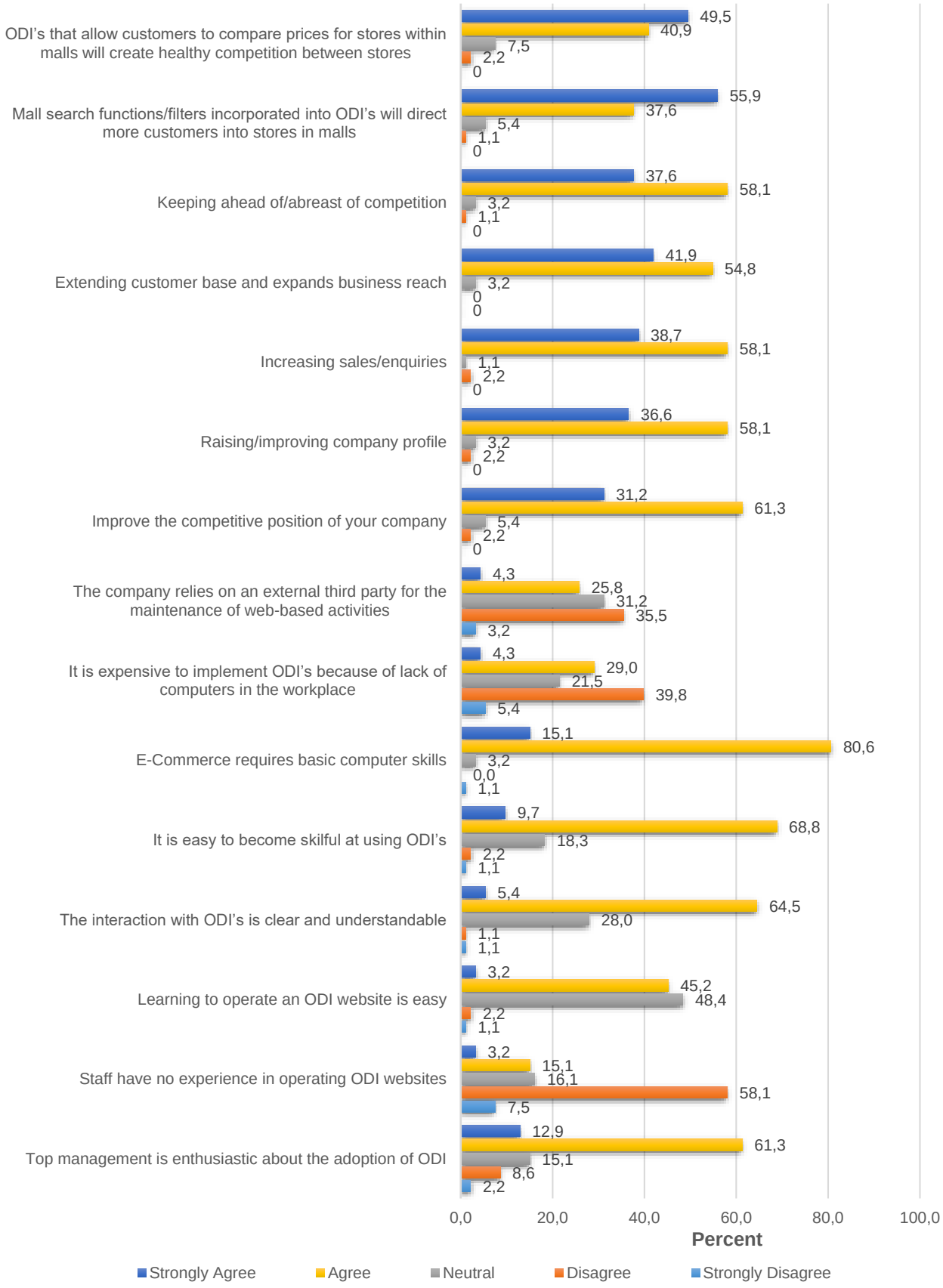

Figure 7: Adoption of ODIs in the surveyed business which have adopted e-commerce

The level of agreement for the use of online discount intermediaries (ODIs) as supported by e-commerce factors is identified through respondents who have agreed and strongly agreed to the mentioned factor. The percentages quoted in the analysis that follows therefore considers the combined responses of “agree” and “strongly agree” by the participants. A large number of owners (or managers) (95.7%) of mall-based businesses believed that the ability to use e-commerce required basic computer skills. This relates to organisational readiness. The theory strongly supports this as previous research proved that where organisations readiness was percieved as a dominant adoption factor, improvements in technology adoption levels were significant (Mehrtens, Cragg and Mills; 2001; Grandon and Pearson, 2004; Chong, et al., 2009).

At least 78.5% of managers believed that it would be easy to operate a discount website, with basic computer skills. This is supported by findings by Brown and Russell (2007), which provide that the learning and acceptance of new technology is adopted more easily when prior knowledge supports the learning experience.

The belief that it is expensive to implement ODIs because of a lack of computers in the workplace supports the fact that at the same time there may be a deficiency of staff having no experience in operating discount websites. It seems to be a logical occurrence that the respondents have grouped this together. Consequently, companies employ a third party to maintain their web based activities. However, in a study by Wymer and Regan (2005) for Small Medium Enterprises (SMEs) in the USA, the lack of resources was cited as one of the delays in businesses adopting technology which supports e-business. This implies that businesses may not fully embrace the use of discount websites if staff are not well trained, if computers are not available for staff to become better skilled and if businesses continue using third party businesses to maintain their website activities.

More than half the number of surveyed managers (65.6%) believed that their staff had the experience to operate a discount website. This again relates to organisational readiness. This entails having experienced or well-trained personnel to ensure the electronic readiness of the organisation. These personnel provide the electronic needs, skills and abilities for the organisation to adopt technology. Wymer and Regan

(2005) assert that a business' abiity to successfully adopt technology is dependent on employing the right staff, or training existing staff. This is further supported by AlGhamdi (2012) naming the lack of sufficient support for employees as a barrier to e-commerce adoption. Collectively it can be inferred that the success of new technology adoption will be dependent on having experienced staff who can support the implementation.

As identified by 69.9% of the managers surveyed, the interaction on discount websites can be understandable. Furthermore, 78.5% of the managers believe it can be a skill that can easily be acquired. This corresponds with literature by Brown and Russell (2007) who found that technology that is easy to understand and where the skills required are easily developed/acquired, are adopted faster. Almost 70% of top managers demonstrated enthusiasm towards using discount websites as an avenue to encourage products or services on promotion. This corresponds with literature by Brown and Russell (2007), which found that management support positively impacts on the technological development in organisations.

Less than half of the surveyed population (45.6%) believed that a lack of computers played a role in the implementation of utilising discount websites by the business. Almost an equal distribution of businesses (approximately 30.1%) used a third party to promote their products with web-based activities, or performed this in-house. The remainder were not certain about how the business promoted their products and services online, or who maintained their web-activities. This corresponds with a study by Wymer and Regan (2005) which found that the lack of resources was listed as one of the delays in businesses adopting technology which supports e-business. This implies that businesses may not fully embrace the use of discount websites if staff are not well trained, if computers are not available for staff to become better skilled and if businesses continue using third party businesses to maintain their website activities.

Many business owners and managers were in favour of using discount websites to:

- Improve the competitive position of the business (92.5%)
- Improve the business profile (94.7%)

- Increase sales and enquiries (96.8%)
- Extend the customer base and expand business reach (96.7%)

This concurs with findings by in previous literature (Zhu, et al., 2006b) which found that competition positively affects the initiation and adoption of new technology. It further corresponds with Zhu and Kraemer (2005), which found that sales and the impact on business related dimensions (such as customer base, competitive position and company position), should be viewed as a collective and a mutually reinforcing manner.

Furthermore, these mall-based businesses identify that a mall search function (or filter) on discount websites will direct more customers into stores in malls (93.5%). This is supported by literature from S'Gara (2014), which found that website features allow certain complex information to be accessed in ways that traditional environments cannot facilitate, leading to greater benefits for the business. A majority of these businesses (90.4%) support the use of discount websites to encourage healthy price comparisons between stores. Literature reviewed shows that the reasons for adopting new technology to find discounted products relate to a cost saving factor (Oliver and Shor, 2003; Abdul-Rahman, 2010; Khan and Rizvi, 2011; Bicen and Madhavaram; 2013; Andrews, et al., 2014; Išoraitė, 2015). Efficiency of use for the consumer is also identified as a reason (Beauchamp and Ponder, 2010; AlGhamdi, 2012). Mall search filters on discount websites support this in creating convenience of finding information, comparing prices and directing customers to specific stores which have products on promotion (Beauchamp and Ponder, 2010).

4.4.3 Section 3: Perception of e-commerce adoption (for businesses that have not adopted e-commerce)

4.4.3.1 Indication of levels of agreement/disagreement on the perception of e-commerce"

Figure 8, provides an illustration of the variables demonstrating the level of agreement (or disagreement) with the adoption of online discount intermediaries in the surveyed business which has not adopted e-commerce.

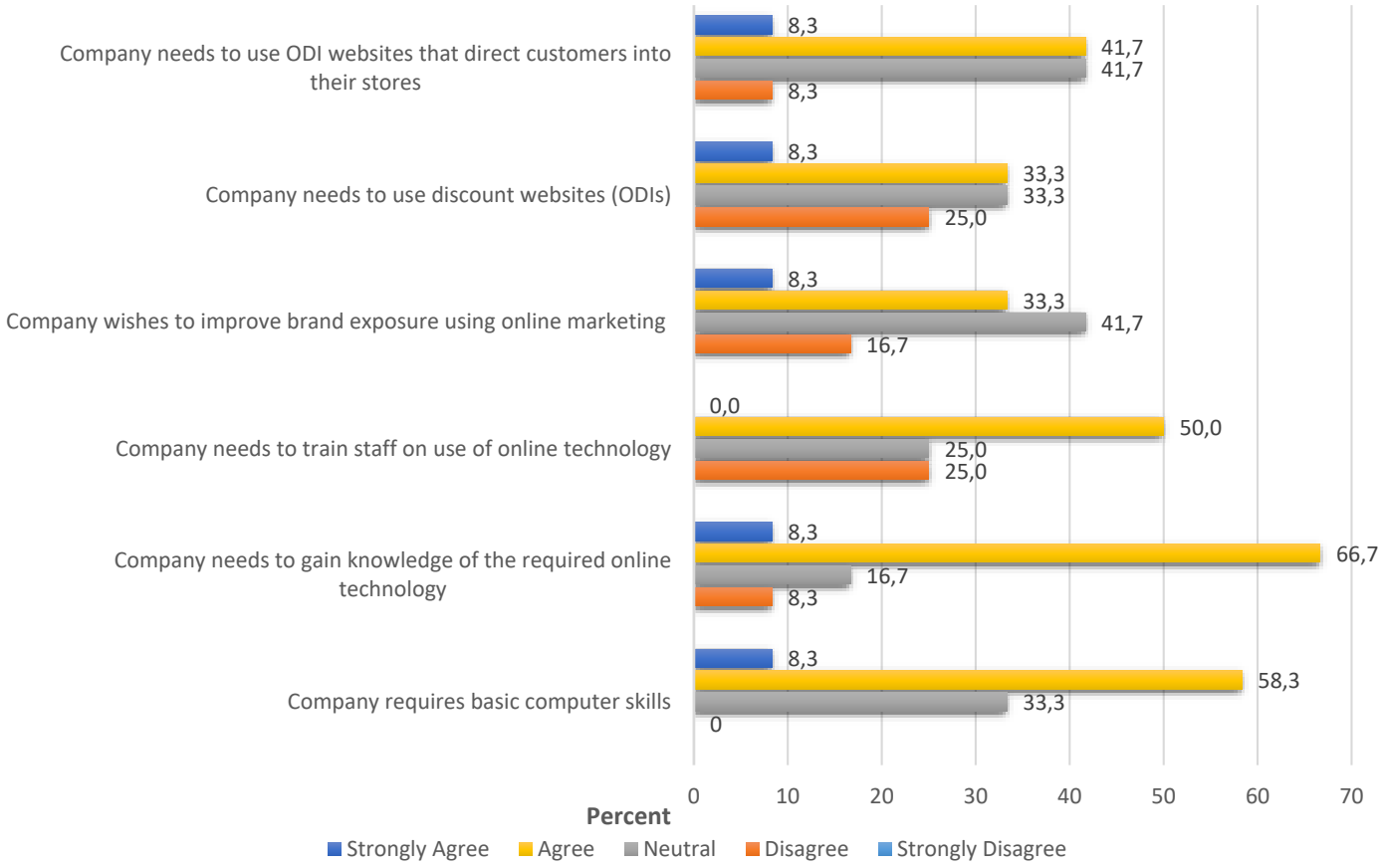

Figure 8: Agreement (or disagreement) levels for the adoption of ODIs in the surveyed business which has not adopted e-commerce

The level of agreement for the perception of e-commerce factors by businesses that have not adopted e-commerce is identified through respondents who have agreed and strongly agreed to the mentioned factor. The percentages quoted in the analysis that

follows therefore considers the combined responses of “agree” and “strongly agree” by the participants. A significant number of owners (or managers) (75% of non-adopters) of mall-based businesses believed that the business needed to gain knowledge of online technology that supports business operations.

At least 66% of managers from businesses which did not use e-commerce believed that the business needs to encourage basic computer skills. This is supported by Zhu and Kraemer, (2005), which found that firms with technology competence are more likely to achieve a greater e-business readiness. At least half of these managers (50%) also believed that the business needs to provide staff with training to use online technology. This corresponds with literature by Brown and Russell (2007) which found that management support positively impacts on the technological development in organisations. Only 16.7% of these managers were of the notion that the business didn’t need to increase its brand exposure online.

Even though these businesses had not adopted e-commerce, 50% of the business owners and managers were in favour of using discount websites to direct customers into their mall-based stores. Less than half (41.6%) of the businesses which did not have an online presence were in favour of using discount websites to promote their business product and service offerings online. Accroding to Sahin (2006), easily designed innovations provide less uncertainty in experimentation and learning and will be adopted rapidly. These businesses therefore do not see discount websites as presenting risk, if they are in favour of adopting it. This implies that without actually using discount websites, non-adopters perceive such sites as helpful (in directing customers to their stores).

Hence, in summary with the above and section 2 part 1 of the survey, the main reasons/factors that prevent these businesses from not adopting ODIs include the lack of:

- business strategy (or plan) for using e-commerce
- electronic mail (E-mail)
- internet access in the business
- an online presence

- basic computer skills
- technical IT knowledge and skills
- training that would support the use of e-commerce

4.5 Summary

This chapter provided the preliminary frequency analysis. It was presented descriptively through graphs and tables. It gave an insight to the view of the respondents in relation to the adoption and non-adoption of ODIs. This enables a preliminary view of the results before delving deeper into the inferential statistics in the following chapter. These findings will further be elaborated in Chapter 5, by means of a factor analysis, chi-square analysis, and correlation analysis.

Chapter 5

Detailed Analysis and Discussion

5.1 Introduction

This chapter presents the detailed analysis of the results of the study and discusses the key results. The data collected were analysed with SPSS version 24.0. Inferential techniques for analysis included the use of reliability analysis, factor analysis, chi-square and correlation analysis. This chapter provides an interpretation of the results and supports them with applicable theories and literature from the literature review. The results are discussed in conjunction with the research objectives and questions posed at the prelim of the study.

5.2 Objectives and Research Questions

For reiteration and ease of reference, the objectives and research questions of the study are presented again.

5.2.1 Research Questions

- What are the current business practice of using ODIs at businesses located in shopping malls in Durban (KwaZulu-Natal)?
- What are the factors influencing the use of ODIs by business in shopping malls in Durban?
- What are the possibilities and challenges for business in the adoption of ODIs?

5.2.2 Objectives

- To determine the current business practice of using ODIs at businesses located in shopping malls in Durban (KwaZulu-Natal)
- To investigate the factors influencing the use of ODIs by business in shopping malls

- To investigate the possibilities and challenges for business in the adoption of ODIs

5.3 Key findings from frequency analysis

Some key noticeable results from Chapter 4 show that businesses that have adopted e-commerce have access to email or the internet. The presence of Information Technology skills features high in these businesses (94.6%) (Brown and Russell, 2007; Chong, et al., 2009). These business convey that technology doesn't only need to be available in business, but it must also be compatible (Wang, Wang and Yang, 2010). Businesses view external pressure as a significant impact on the decision to adopt e-commerce (Zhu and Kraemer, 2005; Aguila-Obra and Padilla-Mele´ndez; 2006; Lippert and Govindarajulu, 2006; Zhu, et al., 2006; Zhu, Kraemer and Xu, 2006b; Chong, et al., 2009; Wang, Wang and Yang, 2010; Awa, Ukoha, and Emecheta, 2012). Almost 70% of top managers demonstrated enthusiasm towards using discount websites as an avenue to encourage products or services on promotion (Brown and Russell, 2007). Businesses believed that using discount websites improved the competitive position and business profile of the business, increase sales and enquiries and extended the customer base (Zhu and Kraemer, 2005; Zhu, et al., 2006b). With regard to business that had not adopted e-commerce, 75% of mall-based businesses believed that the business needed to gain knowledge of online technology that supports business operations (Zhu and Kraemer, 2005). Even though these businesses had not adopted e-commerce, 50% of the business owners and managers were in favour of using discount websites to direct customers into their mall-based stores (Brown and Russell, 2007).

5.4 Reliability analysis

The two most important aspects of precision are reliability and validity. Reliability is computed by taking several measurements on the same subjects. A reliability coefficient of 0.60 or higher is considered as "acceptable" (Tavakol and Dennick, 2011). The data was able to be statistically analysed. Cronbach's alpha is a recognised tool for testing statistical reliability (Wang, Wang and Yang, 2010).

	Number of Items	Cronbach's Alpha
Determinants (factors) that have influenced the decision to adopt e-commerce	13 of 13	0.904371
Online Discount Intermediary (ODI) adoption	15 of 15	0.812053
Perception of e-commerce	4 of 6	0.717703

Table 6: The table above reflects the Cronbach's alpha score for study data

The reliability scores for all sections exceed the recommended Cronbach's alpha value of 0.600 for a newly developed construct. This indicates a degree of acceptable, consistent scoring for these sections of the research. Reliability analysis was possible because data was valid and reliable. Based on the table shown above, the reliability of the data collected has proved to be extremely high and reliable. The closer the Cronbach's alpha score is to 1, the stronger and more reliable the data is. So, the quality of the data was reliable based on Cronbach's alpha (Tavakol and Dennick, 2011).

5.5 Factor analysis

Factor analysis is a statistical technique that primarily aims for data reduction. A typical use of factor analysis is in survey research, where a researcher wishes to represent a number of questions with a small number of hypothetical factors. Factor analysis can be used to establish whether the respective measures do, in fact, measure the same thing. If so, they can then be combined to create a new variable, which is a factor score variable that contains a score for each respondent on the factor. Factor techniques are applicable to a variety of situations (Gurusamy, 2011). Although the survey used in this research is adapted from previous studies, parts of the survey included new items. Hence, factor analysis was conducted to evaluate construct validity (Chong, et al., 2009).

The matrix tables are preceded by a summarised table that reflects the results of KMO and Bartlett's Test. Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin (KMO)

measure of sampling adequacy are both tests that determine data factorability (Coakes and Steed, 2007). The requirement is that Kaiser-Meyer-Olkin measure of sampling adequacy should be greater than 0.50 and Bartlett's Test of Sphericity less than 0.05 (Coakes and Steed, 2007), for factorability to be assumed. In all instances, the conditions are satisfied which allows for the factor analysis procedure.

Factor analysis was done for Likert scale items. Certain components are divided into finer components (Wang, Wang and Yang, 2010). This is explained below in the rotated component matrix.

5.6 KMO and Bartlett's Test

	Kaiser-Meyer-Olkin Measure of Sampling Adequacy	**Bartlett's Test of Sphericity**		
		Approx. Chi-Square	**df**	**Sig.**
Determinants (factors) that have influenced the decision to adopt Ecommerce	0.844	968.915	78	0.000
Online Discount Intermediary (ODI) adoption	0.757	889.493	105	0.000
Perception of e-commerce	0.570	12.847	15	0.614

Table 7: KMO and Bartlett's Test values for items in the questionnaire

The last section was answered by a smaller group of respondents regarding perceptions (subjective). Some statistical tests assume that variances are equal across groups or samples (Wang, Wang and Yang, 2010). This is thus not the case for the last section. Factor analysis was done nonetheless to look at loading patterns.

5.5.1 Rotated Component Matrix

With reference to the tables that follow, the principle component analysis was used as the extraction method, and the rotation method was Varimax with Kaiser Normalization. According to Wang, Wang and Yang (2010):

- This is an orthogonal rotation method that minimises the number of variables that have high loadings on each factor. It simplifies the interpretation of the factors.
- Factor analysis/loading show inter-correlations between variables.
- Items of questions that loaded similarly imply measurement along a similar factor. An examination of the content of items loading at or above 0.5 (and using the higher or highest loading in instances where items cross-loaded at greater than this value) effectively measured along the various components.

It is noted that the variables that constituted the following sections of 3 or 4 components (sub-themes). This means that respondents identified different trends within the section. Within the section, the splits are colour coded, and explained in detail.

5.5.2 Rotated Component Matrix[a:] Determinants (factors) that have influenced the decision to adopt e-commerce

Determinants (factors) that have influenced the decision to adopt e-commerce	Component		
	1	2	3
Owner/ manager support	0.218	0.148	0.836
Presence of IT skills in the company	-0.098	0.163	0.797
Owner/manager understanding of the benefits of E-Commerce	0.198	0.213	0.800
External pressure from competitors	0.875	0.083	0.066
External pressure from industry	0.858	0.205	0.047
External pressure from customers	0.823	0.121	0.188
Compatibility with company's business processes	0.517	0.651	0.105
Compatibility with existing company's technology infrastructure	0.512	0.711	0.196
Compatibility with company's preferred work practices	0.529	0.685	0.282
Availability of financial resources to adopt E-Commerce	0.504	0.444	0.416
Availability of technological resources to adopt E-Commerce	0.381	0.475	0.533
Size of the company	0.075	0.834	0.266
Business type of the company	-0.022	0.841	0.155

Table 8: The rotated component matrix for the determinants (factors) that have influenced the decision to adopt e-commerce

The first factor (highlighted in yellow above) under component 1 has been labelled "external pressure". This is because of the high factor loadings of the following determinants that have influenced the decision to adopt e-commerce:

- External pressure from competitors;
- External pressure from industry; and,
- External pressure from customers.

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of determinants that influence a business's adoption of e-commerce as part of the environmental context (Ifinedo, 2011). External pressure (sometimes referred to as competitive pressure) is well recognised as an adoption motivator in the innovation adoption literature. This is supported by Zhu and Kraemer (2005), Aguila-Obra and Padilla-Mele´ndez (2006), Lippert and Govindarajulu (2006), Zhu, et al. (2006), Zhu, et al. (2006b), Chong, et al. (2009), Wang, Wang and Yang, (2010) and Awa, Ukoha and Emecheta (2012). These studies have shown that innovation diffusion is accelerated by external pressure in the environment. These are offered as illustrative, not exhaustive options, as the availability of financial resources to adopt e-commerce is also a high factor loading in this category.

This reveals that a business may be pressurised by its customers, partners, and competition to adopt e-commerce. This can prompt businesses to look at new ways of conducting business. This may include utilising technological innovations, which could involve a consideration of the new technology with the existing infrastructure, work processes and preferred work practices. These are also indicated as high factor loadings above 0.51 under component 1 in the table above. Delving into new technology and the adoption of it could be dependent on the availability of financial resources that support this. These environmental pressures can increase the rates of innovation adoption by businesses. This concurs with the findings in previous literature (Aguila-Obra and Padilla-Mele´ndez, 2006; Zhu, et al., 2006b; Chong, et al., 2009; Wang, Wang and Yang, 2010).

The second factor (highlighted in blue above) under component 2 has been labelled "compatibility". This is because of the high factor loadings of the following determinants that have influenced the decision to adopt e-commerce:

- Compatibility with company's business processes;
- Compatibility with existing company's technology infrastructure; and,
- Compatibility with company's preferred work practices.

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of determinants that influence a business's adoption of e-commerce as part of the technological context. This is consistent with literature by Ifinedo (2011).

These are offered as illustrative, not exhaustive options, as size of the business and type of business are also a high factor loading in this category.

Compatibility is defined as “the degree to which an innovation is perceived as consistent with the existing values, past experience, and the needs of potential adopters” (Rogers, 1983, p.223). Findings by Wang, Wang and Yang, (2010) reveal that high compatibility is identified as a facilitator for innovation adoption. The above results under component 2 reveal that technological innovations diffuse more freely and easily where such applications appear to match the adopter’s processes, work practices and current company infrastructure.

However, respondents also view the size of the company and the type of company to be significant factors which are also grouped into this category. By inference, the size and type of business is positively associated with the decision to adopt e-commerce. This is further dependent on whether it is compatible with the adopter’s processes, work practices and current company infrastructure. This concurs with findings by Aguila-Obra and Padilla-Mele´ndez (2006), which found that technology adoption is positively associated with the size of the organisation. Wang, Wang and Yang, (2010) also provide findings where a business’s experiences with information systems are compatible and match the applications and existing information infrastructure, the changes introduced will be consistent with existing practices. This means that a positive implementation may occur and favourably facilitate the implementation of adoption.

The third factor (highlighted in green above) under component 3 has been labelled “management support”. This is because of the high factor loadings of the following determinants that have influenced the decision to adopt e-commerce:

- Owner/manager support;
- Presence of Information Technology skills in the company; and,
- Owner/manager understanding of the benefits of e-commerce.

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of determinants that influence a business's adoption of e-commerce as part of the organisational readiness context (Ifinedo, 2011). These are offered as illustrative, not exhaustive options, as the availability of technological resources to adopt e-commerce is also a high factor loading in this category. This is consistent with the findings in previous literature (Chong, et al., 2009), which found that technology adoption is higher where organisational attributes such as management support and technical feasibility are available.

Management support refers to the "active engagement of top management with innovation adoption" (Thong, Yap and Raman, 1990, p.252). The very high factor loadings evidenced for component 3 support that management generally favours the acceptance of technolgical innovations. This concurs with Jeyaraj, Rottman and Lacity (2006), who assert that managers act as change agents in the adoption of technological innovations. The presence of IT skills in the company lends support to managements understanding of the importance of computer technology. This plays a crucial role in creating a positive environment for innovation adoption with management influencing other organisational members to adopt it. This therefore has implications on the availability of technological resources in the adoption of e-commerce, placing the acceptance of new technology at the forefront in producing more favourable business outcomes. This is consistent with literature from Brown and Russell (2007) that found management support and technology competence to positively affect technology adoption in the South African retail environment. The availability of technological resources in the adoption of e-commerce is consequently a high factor loading in this category.

5.5.3 Rotated Component Matrix[a:] Online Discount Intermediary (ODI) adoption

Online Discount Intermediary (ODI) adoption	Component			
	1	2	3	4
Top management is enthusiastic about the adoption of ODI	0.203	0.476	0.254	0.175
Staff have no experience in operating ODI websites	-0.047	0.182	-0.163	0.702
Learning to operate an ODI website is easy	0.005	0.808	-0.110	0.143
The interaction with ODI's is clear and understandable	0.176	0.855	0.006	0.046
It is easy to become skilful at using ODI's	0.212	0.820	0.184	0.023
E-Commerce requires basic computer skills	0.218	0.725	0.113	0.074
It is expensive to implement ODI's because of lack of computers in the workplace	0.031	-0.026	-0.049	0.729
The company relies on an external third party for the maintenance of web-based activities	0.022	0.161	0.270	0.614
Improve the competitive position of your company	0.862	0.105	0.229	-0.004
Raising/improving company profile	0.914	0.155	0.231	-0.038
Increasing sales/enquiries	0.931	0.067	0.114	-0.029
Extending customer base and expands business reach	0.878	0.258	0.112	0.023
Keeping ahead of/abreast of competition	0.771	0.275	0.016	0.086
Mall search functions/filters incorporated into ODI's will direct more customers into stores in malls	0.332	0.221	0.746	-0.082
ODI's that allow customers to compare prices for stores within malls will create healthy competition between stores	0.146	0.005	0.878	0.029

Table 9: The rotated component matrix for the determinants (factors) that have influenced Online Discount Intermediary (ODI) adoption

The first factor (highlighted in yellow above) under component 1 has been labelled "relationship-related benefits". This is because of the high factor loadings of the following factors for discount advertising using website intermediaries:

- Improve the competitive position of your company;
- Raising/improving company profile;
- Increasing sales/enquiries;
- Extending customer base and expands business reach; and,
- Keeping ahead of/abreast of competition.

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of factors for discount advertising using website intermediaries as part of the relative advantage construct for the technological and environmental contexts (Ifinedo, 2011). Zhu and Kraemer (2005), Aguila-Obra and Padilla-Mele´ndez (2006), Lippert and Govindarajulu (2006), Zhu, et al. (2006), Zhu, et al. (2006b), Chong, et al. (2009) and Awa, Ukoha, and Emecheta (2012) have suggested that competition drives businesses to adopt a new innovation. We therefore include competition intensity in the environmental context. This concurs with findings by previous literature (Zhu, et al., 2006b) which found that competition positively affects the initiation and adoption of new technology.

Relative advantage is "the degree to which an innovation is perceived as being better than the idea it supersedes" (Rogers, 1983, p.213). As these variables have very high factor loadings, they may be considered to be very important in positively encouraging the adoption of e-commerce by businesses. This concurs with Ifinedo (2011), which found that the likelihood of businesses adopting emerging technologies is greater where competition is believed to derive some advantages from such applications. The respondents in the current study view these variables as belonging to one category of relationship-related benefits that highlight the significance of outperforming the competition. This shows that businesses realise the benefits of adopting discount advertising technologies, using e-commerce to increase their sales and customer base, while positively impacting on their company profile and competitive position. This is consistent with previous literature (Zhu and Kraemer, 2005), which found that sales

and the impact on business related dimensions (such as customer base, competitive position and company position), should be viewed as a collective and a mutually reinforcing manner.

The second factor (highlighted in blue above) under component 2 has been labelled “complexity”. This is because of the high factor loadings of the following factors for discount advertising using website intermediaries:

- Learning to operate an ODI website is easy;
- The interaction with ODI’s is clear and understandable;
- It is easy to become skilful at using ODI’s; and,
- E-Commerce requires basic computer skills

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of factors for discount advertising using website intermediaries as part of the complexity construct for the technological context (Ifinedo, 2011). This is supported by findings by Brown and Russell (2007), which provide that the learning and acceptance of new technology is adopted more easily when it is simple. In the South African retail environment, Brown and Russell (2007) further found that technology that is easy to understand and develops skills easily, are adopted faster. These are offered as illustrative, not exhaustive options, as top managements enthusiasm for adopting ODIs is also a high factor loading in this category.

Complexity is described as “the degree to which an innovation is perceived to be relatively difficult to understand and use” (Rogers, 1983, p.230). The result in component 2 above shows that the adoption of a new innovation is more likely accepted if it is clear, understandable and easy to use. This is further supported if the ability to use the discount website requires basic computer skills and allows the respondent to become skilful at the task. This is consistent with the Diffusion of Innovation theory (Rogers, 1995) which reasons that an innovation will be discouraged if it is perceived by the adopter to be complex (Rogers, 1995). Grouped in this same category is management’s enthusiasm to adopt the use of discount websites. It infers that discount websites that are less complex would garner greater support and acceptance among adopters than more complex systems. (Rogers, 1983)

The third factor (highlighted in green above) under component 3 has been labelled “access to convenience”. Access to convenience for the online environment relates to the speed and ease of accessibility of information (Beauchamp and Ponder, 2010). It provides time and cost-saving benefits. For online purchasing, it allows consumers to compare prices and swiftly find items (Michael, 2006). This incorporates search convenience, which for online environments, is facilitated through the design of a website. The innovative navigation features allows the consumer to find what they want quicker (Beauchamp and Ponder, 2010). The following factors together, which have high factor loadings, for discount advertising using website intermediaries:

- Mall search functions/filters incorporated into ODI’s will direct more customers into stores in malls; and,
- ODI’s that allow customers to compare prices for stores within malls will create healthy competition between stores.

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of factors for discount advertising using website intermediaries as part of the relative advantage construct for the technological context (Ifinedo, 2011). As mentioned earlier, relative advantage, as explained by Roger (1983), implies that where there are high demands placed on technology, there will be higher rate of adoption amongst its users to provide a more beneficial outcome. For discount websites, this can explore whether the technology provides more helpful experiences for the users (i.e. businesses or consumers).

The rate of adoption of the new technology for ODIs can be increased and made more effective where it supports and motivates the individuals of the social system (Sahin, 2006). Mall search filters on discount websites support this in creating convenience of finding information, comparing prices and directing customers to specific stores which have products on promotion. This concurs with literature by S'Gara (2014), which found that features on websites allow certain complex information to be accessed which lead to increased benefits for the business. Incentives make up a fair part of the motivation and the consumers motivation directly influences the businesses motivation for use of the ODI. Literature reviewed shows that the reasons for adopting new

technology to find discounted products relate to a cost saving factor (Oliver and Shor, 2003; Abdul-Rahman, 2010; Khan and Rizvi, 2011; Bicen and Madhavaram; 2013; Andrews, et al., 2014; Išoraitė, 2015). Efficiency of use for the consumer is also identified as a reason (Beauchamp and Ponder, 2010; AlGhamdi, 2012).

The fourth factor (highlighted in light red above) under component 4 has been labelled "organisational readiness". This is because of the high factor loadings of the following factors for discount advertising using website intermediaries:

- It is expensive to implement ODI's because of lack of computers in the workplace;
- The company relies on an external third party for the maintenance of web-based activities; and,
- Staff have no experience in operating ODI websites.

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of factors for discount advertising using website intermediaries as part of the organisational context (Ifinedo, 2011).

Organisational readiness entails having well-trained personnel and skilled web consultants to ensure the electronic readiness of the organisation. Brown and Russell (2007) found that top management can increase financial and technological resources for the adoption of e-commerce. The acquisition of additional technological infrastructure is associated with financial expenses. This is supported by Chong, et al. (2009). They provide that adoption of new technology will require financial resources, in order to facilitate training of personnel. Therefore, having well-trained personnel may be impacted by financial resources available. These personnel provide the electronic needs, skills and abilities for the organisation to adopt technology.

The belief that it is expensive to implement ODIs because of a lack of computers in the workplace supports the argument that concurrently there may be staff that lack/have no experience in operating discount websites. It is therefore logical that the respondents have grouped this together. Consequently, businesses employ a third party to maintain their web based activities. However, AlGhamdi (2012) cites the lack

of sufficient support for employees as a barrier to e-commerce adoption. In a study by Wymer and Regan (2005) for Small Medium Enterprises (SMEs) in the USA, the lack of resources was cited as one of the delays in businesses adopting technology which supports e-business. This implies that businesses may not fully embrace the use of discount websites if staff are not well trained, if computers are not available for staff to become better skilled and if businesses continue using third party businesses to maintain their website activities. Wymer and Regan (2005) assert that companies that fail to employ the right staff, or train existing staff dwindle in success against those businesses that lead in the online marketing environment. The literature strongly supports this as previous research proved that where organisations readiness was percieved as a dominant adoption factor, improvements in technology adoption levels were significant (Mehrtens, Cragg and Mills, 2001; Grandon and Pearson, 2004; Chong, et al., 2009).

5.5.4 Rotated Component Matrix[a]: Perception of e-commerce

Perception of e-commerce	Component		
	1	2	3
Company requires basic computer skills	-0.055	-0.088	0.959
Company needs to gain knowledge of the required online technology	0.301	0.820	-0.087
Company needs to train staff on use of online technology	-0.261	0.816	-0.017
Company wishes to improve brand exposure using online marketing	0.797	0.320	0.184
Company needs to use discount websites (ODIs)	0.783	-0.062	-0.426
Company needs to use ODI websites that direct customers into their stores	0.862	-0.150	-0.066

Table 10: The: The rotated component matrix for the perception of e-commerce by businesses that have not adopted e-commerce or ODIs

Noting that the above matrix, Table 10, is performed on respondents who have not adopted e-commerce or advertising on discount websites, their responses were of

noteworthy interest. The first factor (highlighted in yellow above) under component 1 has been labelled “observability”. This is because of the high factor loadings of the following factors for perception that e-commerce and discount advertising delivers using website intermediaries:

- Company wishes to improve brand exposure using online marketing;
- Company needs to use discount websites (ODIs); and,
- Company needs to use ODI websites that direct customers into their stores.

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of factors for perceptions of e-commerce and discount advertising as part of the environmental context (Ifinedo, 2011). These are offered as illustrative and not exhaustive options.

Observability is “the degree to which the results of an innovation are visible to others” (Rogers, 1983, p.232). In line with the framework for the Diffusion of Innovation theory (Rogers, 1983), the more visible the results of an innovation, the more likely is the innovation to be adopted (AlGhamdi, 2012). For the results presented above, non-adopters observe the benefits that e-commerce and discount websites have to offer. These respondents acknowledge that brand exposure can be improved through online marketing by using discount websites. These mall-based business respondents further believe that discount websites could potentially direct customers to their stores and could be beneficial to improving brand exposure. All three variables were loaded highly above 0.78, which implies a strong support for e-commerce by businesses that have not yet adopted it. This conveys that through observability, businesses are motivated to adopt the technology to keep up with trends of their competitors and industry.

The second factor (highlighted in blue above) under component 2 has been labelled “trialability”. This is because of the high factor loadings of the following factors for perception that e-commerce and discount advertising delivers using website intermediaries:

- Company needs to gain knowledge of the required online technology; and,
- Company needs to train staff on use of online technology.

These constructs (or measuring variables) are perceived by the owners (or managers) as one category of factors for perceptions of e-commerce and discount advertising as part of the organisational context (Ifinedo, 2011).

Noting that these businesses have not adopted e-commerce, they have identified the need to gain knowledge and train staff on the required technology. This innovation could be trialable and represents less risk to the individual who is considering it. This is the case as observability is a preceding factor which supports evaluating the risk of the trialable innovation. Accroding to Sahin (2006), where the technology is improved during the trial stage, it may create a faster rate of adoption. Easily designed innovations provide less uncertainty in experimentation and learning and will be adopted rapidly. The above response implies that without actually using discount websites, non-adopters perceive such sites as helpful and consequently, willing to trial it, leading to adoption.

The third factor (highlighted in green above) under component 2 has been labelled “management support”. This is supported by findings by Brown and Russell (2007) in the South African retail sector, which found that management support positively impacts on the technological development in organisations. The high factor loading of the following factor for perception that e-commerce and discount advertising has on adoption of technology, is provided by:

- Company requires basic computer skills.

This construct (or measuring variable) is perceived by the owners (or managers) as one category of factors for perceptions of e-commerce and discount advertising as part of the organisational context (Ifinedo, 2011).

The business owner’s perception of technology, their knowledge of technology and its usefulness are related. When combined with the perceived benefits that the business derives from satisfying the customer’s needs, it determines whether the owner accepts

and supports the adoption and implementation of the technology. The technical capability of the firm establishes a platform on which e-business can be built. Information Technology human resources extend the technical knowledge through the business and helps in the development of computer skills. This is supported by Zhu and Kraemer, (2005), which found that firms with greater technology competence are more likely to achieve a greater e-business readiness. Business owners are risk-averse, so technology which presents a high degree of uncertainty is avoided (Ndayizigamiye, 2012). This implies that non-adopters do not view discount advertising as risky. This leads to trialable behaviour. They therefore support that the company would require basic computer skills in its ability to begin adopting the technology.

5.6 Chi-square analysis

The following section covers the interpretation of data using chi-square analysis. Demonstrated herein is the Pearson's chi-square (also called the Test of Independence). Every statistical test is designed for specific data (i.e. nominal, ordinal, or ratio). Pearson's chi-square is used to ask questions about two nominal variables, and can be used to determine whether two nominal variables are associated in some way (Padachi, 2012). The traditional approach to reporting a result requires a statement of statistical significance. A p-value is generated from a test statistic. The resulting p-value of the chi-square is matched with the set alpha levels or significance levels (0.01, 0.05, and 0.1). A significant result is indicated with "$p<0.05$". These values are highlighted with a *. If the p-value of a variable is less than the significant level, it means there is a relationship between the concerned variable and the category of adopters (Greasley, 2008). The asterisk (*) at the side of the Pearson Chi-square in the tables that follow indicates variables that depicted such relationships at respective significant levels. In the tables below, the biographical questions were correlated against the questionnaire questions.

5.6.1 Businesses that have adopted ODIs

A test of association was conducted on various variables to determine if there can be an association or not.

5.6.1.1 Role in company versus company strategy for using ODIs

		Your Role in the Company
A company strategy (or plan) for using E-Commerce	*Chi-square*	14.783
	df	6
	Sig.	**.022***

Table 11: The association between the role of the respondent in the company versus strategy for using ODIs

The chi-square test carried out on the data was significant at the 0.022 level of significance. Results show that there can be an association between the role of the respondent in the company and the company strategy (or plan) for using ODIs. This concurs with related literature where it was found senior management is able to communicate more easily to various parts of the organisation about the adoption of strategies and the benefits of technology (Wang, Wang and Yang, 2010). The same study found that top management provides a vision, support, and a commitment to create a positive environment for innovation adoption. We may infer that the greater the degree of responsibility (manager or owner) of the respondent in the company, the greater their involvement with the company's development of a strategy for using ODIs. This can also be stated that managers play a significant role in the development of the company's strategy for ODIs. This is consistent with the findings in the frequency analysis where 81.9% of the respondents were managers in the company, and 81% of the businesses had a company strategy for using ODIs.

5.6.1.2 Role in company versus company website

		Your Role in the Company
A website demonstrating your company's products or services	*Chi-square*	18.955
	df	4
	Sig.	**.001***

Table 12: The association between the role of the respondent in the company versus having a company website

The chi-square test carried out on the data was significant at the 0.001 level of significance. It is observed that there can be an association in the role of the respondent in the company and whether the company has a website demonstrating its products or services. This concurs with previous literature which found that the role of management is crucial in the company adopting technology (Chong, et al., 2009). The support of senior management may be associated with the adoption of ODI capabilities (such as a company website). We may also infer that the more senior the manager's position in the company, the more active their participation in developing a website for the company. This is consistent with the findings in the frequency analysis where 81.9% of the respondents were managers in the company, and 86.7% of the businesses had a company website demonstrating its products or services.

5.6.1.3 The business location extent versus company website

		The business is: Local, National or International
A website demonstrating your company's products or services	*Chi-square*	13.903
	df	4
	Sig.	**.008***

Table 13: The association between the business location extent versus having a company website

The chi-square test carried out on the data was significant at the 0.008 level of significance. It may be concluded that there can be an association between the business position as local, national and international, and the company having a website demonstrating its products or services. There may be an association between businesses that have a greater international presence online presence and the support of a company website. This is consistent with the findings in the frequency analysis where a majority of the business are national (39%) and an equal distribution of local and international businesses (30.5% respectively). At the same time, 86.7% of the businesses had a company website demonstrating its products or services. This is supported by Zhu and Kraemer (2005) which found that firms with greater international scope were more likely to achieve greater extent for e-business, through Information Technology infrastructure and Internet capabilities.

5.6.1.4 Role in the company versus availability of financial resources to adopt ODIs

		Your Role in the Company
Availability of financial resources to adopt E-Commerce	*Chi-square*	28.467
	df	8
	Sig.	**.000***

Table 14: The association between the respondents role in the company versus the availability of financial resources to adopt ODIs

The chi-square test carried out on the data was significant at the 0.000 level of significance. The availability of financial resources is therefore equally significant and implies that delving into new technology and the adoption of it could be dependent on the availability of financial resources that support this. This is consistent with the findings in the factor analysis where these variables are perceived by the owners (or managers) as one category of determinants that influence a business's adoption of ODIs, part of the environmental context. This is consistent with the findings in the frequency analysis where 81.9% of the respondents were managers in the company.

In the frequency analysis, these two external pressure factors were equally weighted at 54.8%. This supports that a business may be pressurised by its customers and partners to adopt ODIs. This can prompt managers to look at new ways of conducting business, and would require management's evaluation of the availability of financial resources. Where financial resources are available, the environmental pressures can increase the rates of innovation adoption by managers and consequently, the businesses themselves. This is supported by Zhu and Kraemer (2005), Aguila-Obra and Padilla-Mele´ndez (2006), Lippert and Govindarajulu (2006), Zhu, et al. (2006), Zhu, Kraemer and Xu (2006b), Chong, et al. (2009), Wang, Wang and Yang (2010) and Awa, Ukoha, and Emecheta (2012). These studies have shown that innovation diffusion is accelerated by external pressure in the environment. Furthermore a study by Caselli and Coleman (2001) also found that the extent of technology diffusion with an organisation is dependent on managerial support and financial resources.

5.6.1.5 Role in the company versus compatibility of company to adopt ODIs

		Your Role in the Company
Compatibility with company's business processes	*Chi-square*	22.740
	df	6
	Sig.	**.001***
Compatibility with existing company's technology infrastructure	*Chi-square*	19.758
	df	6
	Sig.	**.003***
Compatibility with company's preferred work practices	*Chi-square*	40.391
	df	8
	Sig.	**.000***

Table 15: The association between the respondents role in the company versus the compatibility of company to adopt ODIs

For the response to compatibility with company's business processes, the chi-square test carried out on the data was significant at the 0.001 level of significance. For the response to compatibility with existing company's technology infrastructure, the chi-square test carried out on the data was significant at the 0.003 level of significance. Similarly, for the response to compatibility with company's preferred work practices, the chi-square test carried out on the data was significant at the 0.000 level of significance.

There can be an association between the role of the respondent in the company and whether the company adopted ODIs as a result of compatibility factors (such business processes, existing company technology infrastructure and preferred work practices). This is consistent with the findings in the frequency analysis where 81.9% of the respondents were managers in the company. This is further supported with the findings in the factor analysis where these variables are perceived by the owners (or managers) as one category of determinants that influence a business's adoption of ODIs, part of the technological context. This concurs with literature from Brown and Russell (2007) which finds that managements support positively affects technology adoption where technology is compatible with the adopter's processes, work practices

and current company infrastructure. The more senior the manager's position in the company, the greater their input on work practices, processes and the compatibility of technology with company infrastructure.

In the frequency analysis, these three factors scored 74.2% (for compatibility with preferred work practices), 75.3% (for compatibility with existing company technology infrastructure) and 77.4% (for compatibility with business processes). This implies that technological innovations diffuse more freely and easily where such applications appear to match the adopter's processes, work practices and current company infrastructure and are supported by the managers of the business.

5.6.1.6 Role in the company versus complexity of ODIs and managements enthusiasm to adopt ODIs

		Your Role in the Company
Top management is enthusiastic about the adoption of ODI	*Chi-square*	18.803
	df	8
	Sig.	**.016***
Learning to operate an ODI website is easy	*Chi-square*	18.150
	df	8
	Sig.	**.020***
It is easy to become skilful at using ODI's	*Chi-square*	18.389
	df	8
	Sig.	**.018***

Table 16: The association between the respondents role in the company versus the complexity of ODIs and managements enthusiasm to adopt ODIs

In the factor analysis previously conducted, the two factors of a) learning to operate a discount website and b) becoming skilful at using it, received high factor loadings. These constructs (or measuring variables) perceived by the owners (or managers) as one category of factors for discount advertising using website intermediaries, part of the complexity construct for the technological context. Top management's enthusiasm for adopting ODIs is also a high factor loading in this category, and will be discussed as part of one grouping.

For the response to complexity of operating a discount website, the chi-square test carried out on the data was significant at the 0.020 level of significance. For the response to complexity of becoming easily skilful in using a discount website, the chi-square test carried out on the data was significant at the 0.018 level of significance.

There can be an association in the role of the respondent in the company and the complexity of operating and becoming skilful at using discount websites. This is supported by Zhu and Kraemer (2005) where is was evidenced that where management plays a greater role in the adoption of technology, there would be a

higher degree of technology competence within the company. There may be an association in the role of the manager and the skills that are developed through technology adoption in the company. This implies that through greater senior management support, the support and commitment for technology adoption and diffusion in the company increases.

The study by Wang, Wang and Yang (2010) showed that top management provides a vision, support, and a commitment to create a positive environment for innovation adoption. The literature strongly supports these statements that the top management support is a key for change (Aguila-Obra and Padilla-Mele´ndez 2006; Chong, et al., 2009; Wang, Wang and Yang, 2010). This is further supported with the findings in the factor analysis where these variables are perceived by the owners (or managers) as one category of determinants that influence a business's adoption of ODIs, part of the technological context.

This shows that the adoption of a new innovation is more likely accepted if it easy to use. This is further supported by management if the discount website allows the respondent to become skilful at the task. Grouped in this same category is management's enthusiasm to adopt the use of discount websites. It implies that discount websites that are less complex would garner greater support and acceptance among adopters than more complex systems. This is consistent with the factor analysis conducted earlier.

5.6.1.7 Role in the company versus relationship-related benefits of ODIs

		Your Role in the Company
Improve the competitive position of your company	*Chi-square*	27.407
	df	6
	Sig.	**.000***
Raising/improving company profile	*Chi-square*	14.867
	df	6
	Sig.	**.021***
Increasing sales/enquiries	*Chi-square*	12.723
	df	6
	Sig.	**.048***
Extending customer base and expands business reach	*Chi-square*	11.405
	df	4
	Sig.	**.022***
Keeping ahead of/abreast of competition	*Chi-square*	19.663
	df	6
	Sig.	**.003***

Table 17: The association between the respondents role in the company versus the relationship-related benefits of ODIs

In the factor analysis previously conducted, the five factors of grouped together as relationship-related benefits received high factor loadings. As indicated previously, these constructs (or measuring variables) are perceived by the owners (or managers) as one category of factors for discount advertising using website intermediaries, part of the relative advantage construct for the technological context.

The following relationship-related benefits are considered:

- For the determinant of improving the competitive position of the company, the chi-square test carried out on the data was significant at the 0.000 level of significance.

- For the determinant of improving the company profile, the chi-square test carried out on the data was significant at the 0.021 level of significance.
- For the determinant of increasing sales/enquiries, the chi-square test carried out on the data was significant at the 0.048 level of significance.
- For the determinant of extending the customer base and expanding business reach, the chi-square test carried out on the data was significant at the 0.022 level of significance.
- For the determinant of keeping ahead of/abreast of competition, the chi-square test carried out on the data was significant at the 0.003 level of significance.

The results may imply that there can be an association in the role of the respondent in the company and the relationship-related benefits (pertaining to sales improvement, extended customer base, improving the company profile and improving the competitive position of the company). This is consistent with previous literature (Zhu and Kraemer, 2005), which found that sales and the impact on business related dimensions (such as customer base, competitive position and company position), should be viewed as a collective and a mutually reinforcing manner.

As seeing from the previously conducted factor analysis, these variables have extremely high factor loadings, grouped into one category. They may be considered to be very important in positively encouraging the adoption of ODIs by businesses. Managers are key in ensuring businesses adopt emerging technologies (Brown and Russell, 2007; Chong, et al., 2009). These relationship-related benefits have significance in outperforming the competition. Through the roles of managers, businesses can realise the benefits of adopting discount advertising technologies, using ODIs to increase their sales and customer base, while positively impacting on their company profile and competitive position (Zhu and Kraemer, 2005).

5.6.1.8 Role in the company versus access to convenience through ODIs

		Your Role in the Company
ODI's that allow customers to compare prices for stores within malls will create healthy competition between stores	*Chi-square*	16.481
	df	6
	Sig.	**.011***

Table 18: The association between the respondents role in the company versus the access to convenience through ODIs

The chi-square test carried out on the data was significant at the 0.011 level of significance. There can be an association in the role of the respondent in the company and the access to convenience for customers which creates healthy competition (as determined by the ability to compare prices between stores). This is consistent with the findings in the frequency analysis where 81.9% of the respondents were managers in the company. Furthermore, as mentioned previously in the factor analysis, access to convenience is perceived by the owners (or managers) as a category of factors for discount advertising using website intermediaries as part of the relative advantage construct for the technological context.

Managers should play a significant role in increasing access to information that extends convenience to the customer. Managers should also play a role in ensuring healthy competition exists between stores, allowing customers to compare prices. For discount websites, this may explore whether the managers engage with technology that provide more helpful experiences for the users (i.e. businesses or consumers). By adopting new discount website technology, customers access more information effectively, efficiently, and it supports the customers decision making, by means of price comparison. As previously indicated in the factor analysis, search filters on discount websites support this in creating convenience of finding information, comparing prices and directing customers to specific stores which have products on promotion. Theory reviewed shows that a cost saving factor plays an important role in the adoption new technology to find discounted products and services (Oliver and Shor, 2003; Abdul-Rahman, 2010; Khan and Rizvi, 2011; Bicen and Madhavaram; 2013; Andrews, et al., 2014; Išoraitė, 2015). Further theory also shows that efficiency

is also a reason for consumers usage of new technology (Beauchamp and Ponder, 2010; AlGhamdi, 2012).

5.6.1.9 The length of establishment of the company versus access to convenience through ODIs

		How long has your business been established for?
ODI's that allow customers to compare prices for stores within malls will create healthy competition between stores	*Chi-square*	12.917
	df	6
	Sig.	**.044***

Table 19: The association between the length of establishment of the company versus the access to convenience through ODIs

The chi-square test carried out on the data was significant at the 0.044 level of significance. It may show that there can be an association in the length of establishment of a business and the access to convenience for customers which creates healthy competition (as determined by the ability to compare prices between stores). This is consistent with the findings in the frequency analysis where 91.5% of the business have been in operation for more than one year at the surveyed malls.

The results show that businesses that have been around longer understand the value of increasing access to convenience for the customer. These businesses further acknowledge that healthy competition is encouraged to ensure customers get the most out of their purchases. Comparing prices within businesses in malls is one way of achieving this. Furthermore, the use of discount websites which support price comparison and healthy competition is supported by businesses that have been longer in operation. There are no appropriate studies/literature that support this finding which inturn makes this a unique finding that can/may inform future studies.

5.6.2 Businesses that have not adopted ODIs

5.6.2.1 Role in the company versus access trialability and technological development in companies that have not adopted ODIs

		Your Role in the Company
Company needs to train staff on use of online technology	*Chi-square*	9.524
	df	4
	Sig.	**.049***

Table 20: The association between the respondents role in the company versus the trialability and technological development in companies that have not adopted ODIs

The chi-square test carried out on the data was significant at the 0.049 level of significance. There can be an association in the role of the respondent in the company and the company needing to train staff to use online technology in businesses that have not adopted ODIs. This concurs with the findings by Brown and Russell (2007) in the South African retail sector, which found that management support positively impacts on the technological development in organisations.

As mentioned in the factor analysis, this construct was labelled “trialability”. Noting that these businesses have not adopted ODIs, the managers have identified the need to train staff on the required technology. Personnel skilled in Information Technology extend the skills, IT knowledge and development through the business. This is supported by Zhu and Kraemer, (2005), that found that firms with greater technology competence are more likely to achieve a greater e-business readiness. The above result implies that without actually using discount websites, non-adopters perceive such sites as helpful. This leads to trialable behaviour. This is consistent with the findings in the previously conducted factor analysis.

5.7 Correlation analysis

The Pearson correlation matrix is used to indicate the direction, strength and significance of the bivariate relationships of all the variables in the study. Bivariate correlation was also performed on the (ordinal) data. Positive values indicate a directly proportional relationship between the variables and a negative value indicates an inverse relationship. (Attar and Sweis, 2010).

Different authors suggest different interpretations for values of Pearson correlation. According to Attar and Sweis (2010), values lying in the range (0.1 – 0.29) suggest small correlation, values in the range (0.3 – 0.49) suggest medium correlation and values in the range (0.5 – 1) suggest large correlation between variables. It is convention that the “sig” value is less than 0.05. This means the correlation is considered to be significant (meaning that the researcher can be 95% confident that the relationship between these two variables is not due to chance). All applicable significant relationships are indicated by a * or **. A single “*” indicates the correlation is significant at the 0.05 level (2-tailed). A double “*” indicates the correlation is significant at the 0.01 level (2-tailed). The results that will be discussed are shown in bold text, in font larger than the regular numerical font in the table.

According to the diffusion of innovation theory (Rogers, 1983), the main dependent construct (or factors) are given by the implementation success or the rate of adoption of technology adoption. The main independent construct (or factors) are given by compatibility of technology, complexity of technology, trialability, observability and relative advantage (perceived need or attributes of technology) (Rogers, 1995).

The rate of adoption of innovations is impacted by five factors, that being, relative advantage, compatibility, trialability, observability, and complexity. The first four factors are generally positively correlated with rate of adoption while the last factor, complexity, is generally negatively correlated with rate of adoption (Rogers, 1995). Low cost innovations may have a rapid take-off while innovations whose value increases with widespread adoption (network effects) may have faster late stage growth (Rogers, 1995).

As established in the already conducted factor analysis, the application of theory split the factors (or components) of the questionnaire into specific groupings, as perceived by the respondents. These are carried forward into the discussion below, to simplify the application to the diffusion of innovation theory (Rogers, 1995)

5.7.1 Implementation success

Implementation success endeavours to demonstrate the contribution and realisation of improving company performance through critical success factors. These factors may be derived from positive attitudes towards the technology, better coordination of resources, and enhancing quality and efficiency of the system (Bradford and Florin, 2003; Lee and Kim, 2007; Hung, et al., 2014). It has organisational benefits of helping learning in the company. It has strategic benefits of supporting company's growth and creating a supportive environment for innovation (Beatty, Shim and Jones, 2001; Lin, 2008; Carayannis and Turner, 2006; Postema, et al., 2012; Akça and Özer, 2014).

5.7.1.1 Correlation of significant implementation success factors in ODI adoption

		Owner/ manager support	**Presence of IT skills in the company**	**Availability of financial resources to adopt E-Commerce**
Presence of IT skills in the company	Correlation Coefficient	**.534****	1	
	Sig. (2-tailed)	0.000		
	N	93	93	
Owner/manager understanding of the benefits of E-Commerce	Correlation Coefficient	**.715****	.527**	
	Sig. (2-tailed)	0.000	0.000	
	N	93	93	
Availability of technological resources to adopt E-Commerce	Correlation Coefficient	.541**	.375**	**.850****
	Sig. (2-tailed)	0.000	0.000	0.000
	N	93	93	93

Table 21: The correlation between implementation success factors relating to support, presence of skills and resource availability for ODI adoption

It was earlier established in the factor analysis that respondents grouped these factors together, and was referred to it as “management support”. The management support variables are therefore given by:

- Owner/ manager support
- Presence of Information Technology skills in the company
- Owner/manager understanding of the benefits of E-Commerce
- Availability of technological resources to adopt E-Commerce

These are offered as illustrative option, the following factors also provide strong correlations, as illustrated in the above table:

- Availability of financial resources to adopt E-Commerce

The five questionnaire items stated above were used to measure the level of agreement (or disagreement) of the managers with the implementation success variable on the adoption of ODIs. The results indicate six positive relationships that are statistically significant in all five of the determinants for implementation success at the 0.01 level.

The correlations imply that the support that is offered by management (or the owner) towards adopting ODIs in business could increase the presence of Information Technology skills in the company. This could mean that the more support there is for ODIs, the more Information Technology skills could be encouraged in the organisation (0.534, $p<0.01$). This is consistent with the findings in previous literature (Chong, et al., 2009), which found that technology adoption is higher where organisational attributes such as managements support and technical feasibility are available.

In addition, there is a directly proportional relationship between the understanding of the benefits of ODIs and the owner/managers support of it (0.715, $p<0.01$). This can imply that an increase in the owner/managers understanding of the benefits of ODIs can imply an increase in the support for ODIs. This is supported by literature from Brown and Russell (2007) which finds that managements support and understanding of technology positively affects technology adoption.

Furthermore, there is a direct proportional relationship between the availability of financial resources and technological resource availability (0.850, $p<0.01$). This could imply that an increase in financial resources could increase the technological resources that are available in the business. This concurs with the findings by Chong, et al. (2009) who found that the support of top management with the availability of financial and technical resources will increase the adoption of technology.

5.7.2 Relative advantage

5.7.2.1 Correlation of variables relating to relative advantage for ODI adoption

		Improve the competitive position of your company	Raising/ improving company profile	Increasing sales/ enquiries	Extending customer base and expands business reach	Keeping ahead of/ abreast of competition	Mall search functions/filters incorporated into ODI's will direct more customers into stores in malls
Raising/improving company profile	Correlation Coefficient	**.914****	1				
	Sig. (2-tailed)	0.000					
	N	93	93				
Increasing sales/enquiries	Correlation Coefficient	.839**	**.919****	1			
	Sig. (2-tailed)	0.000	0.000				
	N	93	93	93			
Extending customer base and expands business reach	Correlation Coefficient	.715**	**.791****	**.802****	1		
	Sig. (2-tailed)	0.000	0.000	0.000			
	N	93	93	93	93		
Keeping ahead of/abreast of competition	Correlation Coefficient	.531**	.643**	.627**	**.843****	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		
	N	93	93	93	93	93	
Mall search functions/filters incorporated into ODI's will direct more customers into stores in malls	Correlation Coefficient	.450**	.496**	.380**	.439**	**.351****	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.001	
	N	93	93	93	93	93	93
ODI's that allow customers to compare prices for stores within malls will create healthy competition between stores	Correlation Coefficient	**.317****	**.328****	**.229***	**.258***	0.171	**.579****
	Sig. (2-tailed)	0.002	0.001	0.027	0.013	0.102	0.000
	N	93	93	93	93	93	93

Table 22: The correlation between relative advantage variables for ODI adoption

Respondents grouped the factors shown in Table 22 above, as part of the construct pertaining to relative advantage. This was established in the previously conducted factor analysis then further supported in the chi-square test. The relative advantage variables are therefore given by:

- Improve the competitive position of your company
- Raising/improving company profile
- Increasing sales/enquiries
- Extending customer base and expands business reach
- Keeping ahead of/abreast of competition
- Mall search functions/filters incorporated into ODI's will direct more customers into stores in malls
- ODI's that allow customers to compare prices for stores within malls will create healthy competition between stores (Zhu and Kraemer, 2005).

The seven questionnaire items stated above were used to measure the level of agreement (or disagreement) of the respondents with the relative advantage variable on the adoption of ODIs (specifically for discount website advertising). The results indicate positive relationships that are statistically significant in seven of the determinants for relative advantage at the 0.01 level and 0.05 level.

The key correlations pertaining to 'relative advantage' are shown below, which imply a directly proportional relationship between:

- The competitive position through discount advertising and raising (or improving) the company profile (0.914, $p<0.01$)
- Raising the company profile and increasing sales and enquiries (0.919, $p<0.01$)
- Increasing sales and enquiry and extending the customer base and expanding the business reach (0.802, $p<0.01$)
- Extending the customer base and raising the company profile (0.791, $p<0.01$)
- Extending the customer base and keeping ahead of the competition (0.843, $p<0.01$) (Zhu and Kraemer, 2005)

- Using discount websites with mall search functions (or filters) incorporated into the discount website to direct more customers into stores in malls and keeping ahead of competition (0.351, $p<0.01$)
- Mall search functions (or filters) incorporated into ODI's directing more customers into stores in malls which allow customers to compare prices and encouraging healthy competition between stores (0.579, $p<0.01$) S'Gara (2014).

Further correlations are shown below, which imply a directly proportional relationship between discount websites which allow customers to compare prices and encourage healthy competition between stores and:

- Improvement of the competitive position of the company (0.317, $p<0.01$);
- Improvement of the company profile (0.328, $p<0.01$);
- Sales and enquiries (0.229, $p<0.05$); and,
- Extension of the customer base and business reach (0.258, $p<0.05$) (Zhu and Kraemer, 2005).

This can imply that through discount website advertising which allow customers to compare prices and encourage healthy competition between stores, a business could:

- Improve the completive position of the company;
- Increase the company profile;
- Increase sales and enquiries; and,
- Extend of the customer base and business reach.

A summary of the above analysis provides that the company profile can be raised by extending the customer base. This, together with expanding the business reach, can increase sales and enquiries. This can imply that extending the customer base could increase the opportunity to keep ahead of the competition. This may imply that an increase in the company profile can increase the competitive position through discount advertising. This can infer that healthy competition between stores may be increased by increasing the use of mall search functions (or filters) incorporated into ODI's, directing more customers into stores in malls which allow customers to compare

prices. This could further imply that businesses could keep ahead of the competition by increasing their use of discount websites with mall search functions (or filters) incorporated into the discount website. These findings support the earlier descriptive statistics findings, where it was found that over 92% of businesses believed that discount websites could bring benefits to their organisation in different ways. This is consistent with previous literature (Zhu and Kraemer, 2005), which found that sales is impacted upon by the customer base, competitive position and company position. Also, S'Gara (2014) found that features of websites that promote products online, increase information access to consumers, leading to greater benefits for the business.

5.7.2.2 Relative advantage versus implementation success

5.7.2.2.1 Correlation of significant implementation success factors in ODI adoption versus variables relating to relative advantage adoption of ODIs

		Owner/ manager support	Owner/manager understanding of the benefits of E-Commerce	Availability of financial resources to adopt E-Commerce	Top management is enthusiastic about the adoption of ODI
Improve the competitive position of your company	Correlation Coefficient	**.290****	**.277****	**.329****	**.335****
	Sig. (2-tailed)	0.005	0.007	0.001	0.001
	N	93	93	93	93
Raising/ improving company profile	Correlation Coefficient	**.265***	**.309****	**.253***	**.294****
	Sig. (2-tailed)	0.01	0.003	0.014	0.004
	N	93	93	93	93
Increasing sales/enquiries	Correlation Coefficient	**.248***	**.236***	**.212***	**.264***
	Sig. (2-tailed)	0.016	0.023	0.041	0.01
	N	93	93	93	93
Extending customer base and expands business reach	Correlation Coefficient	**.273****	**.235***	0.185	**.255***
	Sig. (2-tailed)	0.008	0.023	0.076	0.014
	N	93	93	93	93
Keeping ahead of/abreast of competition	Correlation Coefficient	**.283****	**.216***	**.261***	**.289****
	Sig. (2-tailed)	0.006	0.038	0.012	0.005
	N	93	93	93	93
Mall search functions/filters incorporated into ODI's will direct more customers into stores in malls	Correlation Coefficient	**.204***	0.128	0.149	**.279****
	Sig. (2-tailed)	0.05	0.222	0.154	0.007
	N	93	93	93	93
ODI's that allow customers to compare prices for stores within malls will create healthy competition between stores	Correlation Coefficient	0.087	0.13	**.232***	0.139
	Sig. (2-tailed)	0.408	0.216	0.025	0.184
	N	93	93	93	93

Table 23: The correlation between implementation success factors for ODIs and relative advantage variables relating to ODI adoption

The seven questionnaire items for independent constructs (given by relative advantage) shown above were applied against the dependent constructs (given by implementation success). The results indicate positive relationships that are statistically significant at the 0.01 level and 0.05 level.

The correlations can imply that the owner or manager can support the adoption of new discount advertising technology if the technology:

- Improves the competitive position of the company (0.290, $p<0.01$);
- Raises or improves the company profile (0.265, $p<0.05$);
- Increases company sales or enquiries (0.248, $p<0.05$);
- Extends the customer base and expands business reach (0.273, $p<0.01$);
- Enables the company to keep abreast of competition (0.283, $p<0.01$); and,
- Incorporates mall search functions (or filters) incorporated that direct more customers into stores in malls (0.204, $p<0.05$).

Further correlations indicate that the owner or manager could better understand the benefits of new discount advertising technology when the technology:

- Improves the competitive position of the company (0.277, $p<0.01$);
- Raises or improves the company profile (0.309, $p<0.01$);
- Increases company sales or enquiries (0.236, $p<0.05$);
- Extends the customer base and expands business reach (0.235, $p<0.05$); and,
- Enables the company to keep abreast of competition (0.216, $p<0.05$).

Correlations also indicate that financial resources towards new discount advertising technology can be increased if the technology:

- Improves the competitive position of the company (0.329, $p<0.01$);
- Raises or improves the company profile (0.253, $p<0.05$);
- Increases company sales or enquiries (0.212, $p<0.05$);
- Enables the company to keep abreast of competition (0.261, $p<0.05$); and,
- Allows customers to compare prices for stores within malls which creates healthy competition between stores (0.232, $p<0.05$).

Lastly, correlations show that the more top management supports ODI adoption, the more likely it will:

- Improve the competitive position of the company (0.335, $p<0.01$);
- Raise or improves the company profile (0.294, $p<0.01$);
- Increase company sales or enquiries (0.264, $p<0.05$);
- Extend the customer base and expands business reach (0.255, $p<0.05$);
- Enable the company to keep abreast of competition (0.289, $p<0.01$); and,
- Incorporate use of mall search functions (or filters) on discount websites that direct more customers into stores in malls (0.279, $p<0.01$).

These findings are supported by literature by Chong, et al. (2009) who found that when the organisation has the support of top management with both the financial and technical resources available to the organisation, the chances of adopting the technology will be higher. According to Zhu and Kraemer (2005) this will positively impact on sales and on business related dimensions (such as customer base, competitive position and company position). These factors are viewed as a collective and a mutually reinforcing. S'Gara (2014) found that businesses will support promotional features on websites that allow certain complex information to be accessed by the consumer leading to greater benefits for the business.

5.7.3 Compatibility

5.7.3.1 Correlation of variables relating to compatibility for ODI adoption

		Compatibility with company's business processes	Compatibility with existing company's technology infrastructure
Compatibility with existing company's technology infrastructure	Correlation Coefficient	**.846****	1
	Sig. (2-tailed)	0.000	
	N	93	93
Compatibility with company's preferred work practices	Correlation Coefficient	**.832****	**.940****
	Sig. (2-tailed)	0.000	0.000
	N	93	93

Table 24: The correlation between variables relating to compatibility for adoption of ODIs

Respondents grouped the factors shown in Table 24 as part of the construct pertaining to compatibility. This was established in the previously conducted factor analysis then further supported in the chi-square test. The compatibility variables are therefore given by:

- Compatibility with company's business processes
- Compatibility with existing company's technology infrastructure
- Compatibility with company's preferred work practices

The three questionnaire items stated above were used to measure the level of agreement (or disagreement) of the managers with the compatibility variable on the adoption of ODIs. The results indicate positive relationships that are statistically significant in all three of the determinants for compatibility at the 0.01 level.

The correlation implies that an innovation which is compatible with the company's current infrastructure, would diffuse more rapidly into the company's business processes (0.846, $p<0.01$). Findings by Wang, Wang and Yang (2010) reveal that high compatibility is identified as a facilitator for innovation adoption. The impact of compatibility on the business process may have positive implications on the

company's preferred work practices, increasing compatibility (0.832, p<0.01). Furthermore, the correlation implies that technology adopted which impacts positively on the company's preferred work practices can have positive consequences on the company's existing technology infrastructure. This could imply that where new technology improves work processes, adoption may increase. This may enhance the businesses preferred work practices if the technology is compatible with the companies existing technology infrastructure (0.940, p<0.01). This is again consistent with Wang, Wang and Yang (2010). Their findings provide that when changes introduced are consistent with existing practices, a positive implementation will occur facilitating adoption.

5.7.3.2 Compatibility versus implementation success

5.7.3.2.1 Correlation of significant implementation success factors versus compatibility for adoption of ODIs

		Owner/ manager support	Presence of IT skills in the company	Owner/manager understanding of the benefits of E-Commerce
Compatibility with company's business processes	Correlation Coefficient	**.335****	0.136	**.386****
	Sig. (2-tailed)	0.001	0.193	0
	N	93	93	93
Compatibility with existing company's technology infrastructure	Correlation Coefficient	**.368****	**.252***	**.451****
	Sig. (2-tailed)	0	0.015	0
	N	93	93	93
Compatibility with company's preferred work practices	Correlation Coefficient	**.433****	**.299****	**.533****
	Sig. (2-tailed)	0	0.004	0
	N	93	93	93

Table 25: The correlation between implementation success factors for ODIs and compatibility variables relating to ODI adoption

The three questionnaire items for independent constructs (given by compatibility) shown above were applied against the dependent constructs (given by implementation

success). The results indicate positive relationships that are statistically significant at the 0.01 level and 0.05 level.

The following key observations are worth noting:

- The correlation indicates that there can be an increase in owner/manager support towards the adoption of ODIs if the technology:
    - Is compatible with the company's business processes (0.335, $p<0.01$)
    - Is compatible with the company's existing technology infrastructure (0.368, $p<0.01$)
    - Is compatible with the company's preferred work practices (0.433, $p<0.01$)

This is supported by previous literature (Brown and Russell, 2007; Chong, et al., 2009) which finds that adoption of compatible technology is higher when managements' support is available.

- The correlation indicates that Information Technology skills can increase in the company if the adoption of new discount advertising technology:

    - Is compatible with the company's existing technology infrastructure (0.252, $p<0.05$)
    - Is compatible with the company's preferred work practices (0.299, $p<0.01$)

Information Technology skills were identified earlier as determinant of organisational readiness. Therefore, this concurs previous literature which showed that the organisations readiness, increases when the new technology is compatible with the adopters technological support system (infrastructure, processes and work practices) (Mehrtens, Cragg and Mills, 2001; Grandon and Pearson, 2004; Jeyaraj, Rottman and Lacity, 2006).

The correlation implies that there can be an increase in the owner or manager understanding of the benefits new discount advertising technology when the technology:

- Is compatible with the company's business processes (0.386, p<0.01)
- Is compatible with the company's existing technology infrastructure (0.451, p<0.01)
- Is compatible with the company's preferred work practices (0.533, p<0.01)

This is strongly supported by literature from Brown and Russell (2007) which finds that managements support and understanding of technology positively affects technology adoption where technology is compatible with the adopter's processes, work practices and current company infrastructure.

5.7.4 Complexity

5.7.4.1 Correlation of complexity for ODI and ODI adoption

		Learning to operate an ODI website is easy	**The interaction with ODI's is clear and understandable**	**It is easy to become skilful at using ODI's**
The interaction with ODI's is clear and understandable	Correlation Coefficient	**.614****	1	
	Sig. (2-tailed)	0.000		
	N	93	93	
It is easy to become skilful at using ODI's	Correlation Coefficient	.554**	**.694****	1
	Sig. (2-tailed)	0.000	0.000	
	N	93	93	93
E-Commerce requires basic computer skills	Correlation Coefficient	.451**	.598**	**.602****
	Sig. (2-tailed)	0.000	0.000	0.000
	N	93	93	93

Table 26: The correlation between variables relating to complexity of ODIs and ODI adoption

Respondents grouped the factors shown in the Table 26, as part of the construct pertaining to complexity. This was established in the previously conducted factor

analysis then further supported in the chi-square test. The complexity variables are therefore given by:

- Learning to operate an ODI website is easy to use
- The interaction with ODI's is clear and understandable
- It is easy to become skilful at using ODI's
- E-Commerce requires basic computer skills

The four questionnaire items stated above were used to measure the level of agreement (or disagreement) of the managers with the complexity variable on the adoption of ODIs (specifically for discount website advertising). The results indicate positive relationships that are statistically significant in all four of the determinants for complexity at the 0.01 level. Six significant correlations at the 1% level were found between the adoption of discount websites (referred to as ODIs) and complexity factors that influence the adoption.

The correlations imply that discount websites could bring benefits to the company in different ways. The following is notable in terms of the correlations:

- Where discount websites are clear and understandable, it could increase the ease of use and learning ability to operate discount websites (0.614, $p<0.01$)
- Where discount websites are clear and understandable, it could increase the skill of operating discount websites (0.694, $p<0.01$)
- Having basic computer skills can facilitate the ability to become skilful at using ODIs (0.602, $p<0.01$).

These findings are consistent with the diffusion of innovation theory (Rogers, 1995) which reasons that an innovation will be encouraged if it is perceived by the adopter to be simple (Rogers, 1995). This is further supported by findings by Brown and Russell (2007), which provide that the learning and acceptance of new technology is adopted more easily when it is simple. In the South African retail environment, Brown and Russell (2007) further found that technology that is easy to understand and develops skills easily, are adopted faster.

5.7.4.2 Complexity versus implementation success

5.7.4.2.1 Correlation of significant implementation success factors versus variables relating to complexity for adoption of e-commerce and ODIs

		Owner/ manager support	Presence of IT skills in the company	Owner/ manager understanding of the benefits of E-Commerce	Top management is enthusiastic about the adoption of ODI
Learning to operate an ODI website is easy	Correlation Coefficient	**.408****	**.317****	**.223***	**.370****
	Sig. (2-tailed)	0	0.002	0.032	0
	N	93	93	93	93
The interaction with ODI's is clear and understandable	Correlation Coefficient	**.363****	**.263***	**.216***	**.361****
	Sig. (2-tailed)	0	0.011	0.038	0
	N	93	93	93	93
It is easy to become skilful at using ODI's	Correlation Coefficient	**.385****	**.275****	**.216***	**.397****
	Sig. (2-tailed)	0	0.008	0.038	0
	N	93	93	93	93
E-Commerce requires basic computer skills	Correlation Coefficient	**.417****	**.405****	**.293****	**.311****
	Sig. (2-tailed)	0	0	0.004	0.002
	N	93	93	93	93

Table 27: The correlation of implementation success factors versus for e-commerce adoption and complexity for adoption of e-commerce and ODIs

The four questionnaire items for independent constructs (given by complexity) shown above were applied against the dependent constructs (given by implementation success). The results indicate positive relationships that are statistically significant at the 0.01 level and 0.05 level. The key and applicable correlations are hereby shown.

The following key observations are worth noting:

- The correlation implies that the owner or manager could support the adoption of new discount advertising technology if:

    - The discount website is easy to use (0.408, p<0.01)
    - The interaction with discount website is clear and understandable (0.363, p<0.01)
    - It is easy to become skilful at using the discount website (0.385, p<0.01)
    - Using the discount website requires basic computer skills (0.417, p<0.01) (Zhu and Kraemer, 2005; Brown and Russell, 2007)

- Correlations indicate that the more the Information Technology skills in the company increases, it is more likely that:

    - Discount advertising technology can become easy to operate (0.317, p<0.01)
    - Discount advertising technology can be clear and understandable (0.263, p<0.05)
    - Skilfulness could increase in the use of discount advertising technology/ websites (0.275, p<0.01) (Brown and Russell, 2007)

- The owner or manager could better understand of the benefits new discount advertising technology if:

    - The discount website is easy to use (0.223, p<0.05)
    - The interaction with discount website is clear and understandable (0.216, p<0.05)
    - It is easy to become skilful at using the discount website (0.216, p<0.05) (Jeyaraj, Rottman and Lacity, 2006)

- Top management is more likely to adopt the use of discount websites when:

    - It is easy to operate (0.370, p<0.01)
    - It is clear and understandable (0.361, p<0.01)

- It is easy to become skilful in using discount websites (0.397, p<0.01)
- It requires just basic computer skills (0.311, p<0.01) (Zhu and Kraemer, 2005)

This is supported by literature by Jeyaraj, Rottman and Lacity (2006), who find that the IT skills in a company increases when management understands the importance of technology. Brown and Russell (2007) find that the learning and acceptance of new technology is adopted more easily when it is simple. This is further supported by Zhu and Kraemer (2005) where is was evidenced that where management plays a greater role in the adoption of technology, there would be a higher degree of technology competence within the company.

5.7.5 Non-adopters of ODIs

5.7.5.1 Trialability versus implementation success

5.7.5.1.1 Correlation of significant implementation success factors versus variables relating to trialability for non-adopters of ODIs

		A company strategy (or plan) for using E-Commerce	**Company access to the Internet**
Company needs to train staff on use of online technology	Correlation Coefficient	**.747****	**.646***
	Sig. (2-tailed)	0.005	0.023
	N	12	12

Table 28: The correlation between implementation success factors for ODIs and trialability variables for non-adopters of ODIs

The questionnaire item for independent constructs (given by trialability) shown above was applied against the dependent constructs (given by implementation success). The results indicate positive relationships that are statistically significant at the 0.01 level and 0.05 level.

The following key observations are worth noting:

- As part of the training needed by staff in non-adopter companies:
    - There would need to be a company strategy to achieve this (0.747, $p<0.01$)
    - Access to the internet is important (0.646, $p<0.05$)

The result implies that increasing access to the internet may increase the ability to train staff on the technology needed (relating to ODIs). Theory emphasises the availability of the internet as a key component for the strength of IT infrastructure (AlGhamdi, 2012). The results show that managers have identified the need to train staff on the required technology. This could be because managers have observed and evaluated the benefits delivered by ODI adoption. IT human resources extend the technical knowledge through the business and help in the development of computer skills. This concurs with Zhu and Kraemer (2005), which found that firms with greater technology competence are more likely to achieve a greater e-business readiness.

5.7.5.2 Observability versus implementation success

5.7.5.2.1 Correlation of significant implementation success factors versus observability for non-adopters of ODIs

		Company needs to use discount websites (ODIs)
Company needs to use ODI websites that direct customers into their stores	Correlation Coefficient	**.591***
	Sig. (2-tailed)	0.043
	N	12

Table 29: The correlation between implementation success factors for ODIs and observability variables for non-adopters of ODIs

The questionnaire item for independent constructs (given by observability) shown above was applied against the dependent constructs (given by implementation success). The results indicate a positive relationship that is statistically significant at the 0.05 level. One significant correlation at the 5% level was found.

The following key observations are worth noting:

- The increase in the adoption of discount websites can imply:
    - an increase in ODI usage as a means to direct customers into stores (0.591, $p<0.05$)

In line with the framework for the Diffusion of Innovation theory (Rogers, 1983), the more visible the results of an innovation, the more likely is the innovation to be adopted. For the results presented above, non-adopters observe the benefits that e-discount websites have to offer. Using discount websites can have a direct and positive impact on incereasing the number of customers into their stores. This conveys that through observability, businesses are motivated to adopt the technology to keep up with trends of their competitors and industry. The above result implies that without actually using discount websites, non-adopters perceive such sites as helpful (Zhu and Kraemer, 2005; Sahin, 2006).

5.8 Summarised results

Managers may play a key role in businesses adopting emerging technologies. Almost two thirds of management supports the use of discount websites where basic computer skills are required to operate these sites. Information Technology skills are ranked significantly high (94.6%) with many of the surveyed companies. There is an association between Information Technology skills in the organisation and the support for ODIs (0.0534, $p<0.01$). An increase in the owner/managers understanding of the benefits of ODIs can imply an increase in the support for ODIs (0.715, $p<0.01$).

Management's understanding of the technology may also increase when it is compatible with business processes (0.386, $p<0.01$), infrastructure (0.451, $p<0.01$) and preferred work practices (0.533, $p<0.01$). This relates to organisational readiness. An innovation, such as discount advertising technology, which is compatible with the company's current infrastructure, could diffuse more rapidly into the company's business processes (0.846, $p<0.01$).

Where discount websites are clear and understandable, it could increase the ease of use and learning ability to operate discount websites (0.614, $p<0.01$). This could increase the skill of operating discount websites (0.694, $p<0.01$). Having basic computer skills could make it easier to become skilful at using ODIs (0.602, $p<0.01$). While 70% of top managers supported the use of discount websites to promote products and services, the lack of computers in the workplace presented an obstacle. Seventy percent (70%) of managers believed that this would be inexpensive to remedy.

Companies could improve the company profile, sales and competitive position through discount advertising. Healthy competition between stores may be increased by increasing the use of mall search functions (or filters) incorporated into ODI's, directing more customers into stores in malls which allow customers to compare prices. Businesses that are pressurised by its customers and partners to adopt ODIs could look at new ways of conducting business which may require management's evaluation of the availability of financial resources. An increase in financial resources could increase the technological resources that are available in the business (0.850, $p<0.01$). Many businesses (83.9%) are willing to make available the financial support required to increase technology resources.

In the case of non-adopters of ODIs, the results show that managers have identified the need to train staff on the required technology. An increase in training could encourage the formation of company strategy (0.747, $p<0.01$). In understanding that they need to increase the number of customers into their stores, non-adopter companies identify that they would need to use discount websites (0.591, $p<0.05$) to keep up with trends of their competitors and industry. The above result implies that without actually using discount websites, non-adopters perceive such sites as helpful.

5.9 Summary

This chapter presented the detailed analysis of the results. The research objectives and questions were briefly re-iterated. A reliability analysis, factor analysis, chi-square

and correlation analysis provided the interpretation of the results. The results of both adopters and non-adopters of technology were discussed. The diffusion of innovation theory (Rogers, 1983), and other relevant literature, was used to support the findings. The following chapter (6) merges the findings of the previous chapters to provide an overview of the key results. Chapter 6 will establish whether the objectives of the study were addressed. The implications of this research will be discussed. Recommendations for future research and conclusions on the current study will be provided in chapter 6.

Chapter 6

Key findings, conclusions, and recommendations for future studies

6.1 Introduction

This chapter will highlight key findings of chapter four and five. It will blend the findings of these chapters to provide an overview of the key results. This chapter will establish whether the objectives of the study were addressed and whether the results will support or refute these objectives. The implications of this research will be discussed. Furthermore, the chapter will provide recommendations for future research and provide conclusions on the current study.

6.2 Key findings

Key findings will be presented according each of the identified factors and explained according to the tests performed.

6.2.1 Age of managers

The descriptive analysis of the study revealed that more than 90% of managers surveyed were above the age of 25. This shows that it is highly possible that these managers have had substantial work experience and have a fair knowledge of the current employment of technology in their businesses.

6.2.2 Firm size and global stature

The businesses were well established with more than 69% having either a national or international presence. The chi-square analysis for companies that had adopted ODIs showed that businesses that could have a greater international presence may have a stronger online presence. This is affirmed by the descriptive analysis which shows that more than 78% of these businesses employed ODIs capabilities. The factor analysis also showed that organisational characteristics such as firm size could favourably

facilitate the adoption of technology and improve operational efficiency. These businesses may achieve a greater extent through Information Technology infrastructure and internet capabilities.

6.2.3 Adopters of ODIs

6.2.3.1 Presence of Information Technology skills

A key finding from the descriptive analysis for adopters of ODIs is that the presence of Information Technology skills ranks high (94.6%) with many companies. Of the companies that have access to email (95.2%), the Internet (82.9%) or a company website (86.7%), 81% had a company strategy for enhancing the use of these capabilities. This corresponds with the correlation analysis for adopters of ODIs which revealed that increased support for ODIs from management could increase Information Technology skills in the organisation (0.0534, $p<0.01$).

6.2.3.2 Compatibility of Technology and Management support

Another key finding from the descriptive analysis for adopters of ODIs is that more than 93% of the companies require the technology to be compatible with their existing company infrastructure and work practices. Similarly, the chi-square analysis for adopters of ODIs showed that technological innovations diffuse more freely and easily where they match the adopter's processes, work practices and current company infrastructure. This corresponds with the correlation analysis for adopters of ODIs which showed that compatible technology with the company's current infrastructure, could diffuse more rapidly into the company's business processes (0.846, $p<0.01$).

For the factor analysis of adopters of ODIs, such compatibility was significant for ensuring a positive integration during implementation to occur. The correlation analysis for adopters of ODIs shows that the adoption and integration of new technology could support the existing technology infrastructure (0.940, $p<0.01$). This relates to organisational readiness which may increase when the new technology is compatible with the business system.

Where management plays a greater role in the adoption of technology, there would be a higher degree of technology competence within the company. This support is underpinned by the understanding that management has about technology. The correlation analysis shows that management's understanding of the technology may also increase when it is compatible with business processes (0.386, $p<0.01$), infrastructure (0.451, $p<0.01$) and preferred work practices (0.533, $p<0.01$). This support from management towards using discount websites may increase IT skills in the company. This corresponds with the correlation analysis for adopters of ODIs which revealed that management could support the adoption of ODIs if learning to operate the discount website is easy (0.408, $p<0.01$), understandable (0.363, $p<0.01$) and requires basic computer skills to operate (0.417, $p<0.01$).

Furthermore, management could support the adoption of ODIs if it is easy to become skilful at using the discount website (0.385, $p<0.01$). This corresponds with the descriptive analysis for non- adopters of ODIs. It revealed that 75% of the mangers supported the learning of online technology that supports business operations, in businesses that had not yet adopted ODIs. Furthermore, 50% of the business owners and managers were in favour of using discount websites to direct customers into their stores.

6.2.3.3 External pressure

Another key finding from the descriptive analysis for ODIs identifies customers (75.2%), the industry (72%) and competitors (62.4%) as catalysts for pressure on companies to use new technology. According to the factor analysis for ODIs adopters, these act as environmental stimulators which increase the rates of innovation adoption by businesses. They play a major role in allowing the company to compete in broader market segments (in terms of product diversity and business stature). If environmental pressures increase, the rates of innovation adoption by managers and consequently, the businesses themselves, also increases. Companies seek a competitive edge by using new innovations.

6.2.3.4 Financial support and Management support

Many businesses (83.9%) are willing to make available the financial support required to enhance technology resources and development in the company. This is a key finding of the descriptive analysis for companies adopting ODIs. This corresponds with the factor analysis findings for ODI adopters, which show that support to implement new innovations in companies needs to be complemented with adequate financial resources. This is further supported by the chi-square analysis for ODI adopters. It showed that the degree of technology diffusion within a business is dependent on managerial support and financial resources.

Technology diffusion can prompt managers to look at new ways of conducting business and would require their evaluation of the availability of financial resources. The availability of additional financial resources may also relate to set up, infrastructure development and training costs. The correlation analysis for ODI adopters also showed an increase in financial resources could increase the technological resources that are available in the business (0.850, $p<0.01$).

6.2.3.5 Relationship-related benefits

The results of the chi-square analysis imply that there can be an association in the role of the respondent in the company and the relationship-related benefits (pertaining to sales improvement, extended customer base, improving the company profile and improving the competitive position of the company). This corresponds with the correlation analysis for ODI adopters. It was found that the company profile could be raised by extending the customer base (0.791, $p<0.01$). This, together with expanding the business reach, could increase sales and enquiries (0.802, $p<0.01$). This can imply that extending the customer base could increase the opportunity to keep ahead of the competition (0.843, $p<0.01$).

The competitive position through discount advertising could improve the company profile (0.914, $p<0.01$). This was a key finding of the correlation analysis for ODI adopters. This may imply that an increase in the company profile could increase the competitive position through discount advertising. It can be inferred that healthy competition between stores may be increased by increasing the use of mall search

functions (or filters) incorporated into ODI's, directing more customers into stores in malls which allow customers to compare prices (0.351, $p<0.01$). This could further imply that businesses could keep ahead of the competition by increasing their use of discount websites with mall search functions (or filters) incorporated into the discount website (0.579, $p<0.01$).

This corresponds to the descriptive statistics findings for ODI adopters. It showed that over 90% of companies with current ODI capabilities identify that discount websites can increase the customer base and support healthy price comparison amongst stores. With the existence of basic computer skills among managers, managers and business owners believe that learning to operate discount websites would be easy. Over 78% of managers support the use of discount websites to help further develop their skills.

6.2.3.6 Role of managers and access to convenience

A key finding of the chi-square analysis for adopters of ODIs is that managers should play a significant role in increasing access to information that extends convenience to the customer. Managers should also play a role in ensuring healthy competition exists between stores, allowing customers to compare prices. For discount websites, this may explore whether the managers engage with technology that provide more helpful experiences for the users (i.e. businesses or consumers). By adopting new discount website technology, customers can access more information effectively, efficiently, and it supports the customers decision making, by means of price comparison. As previously indicated in the factor analysis, search filters on discount websites support this in creating convenience of finding information, comparing prices and directing customers to specific stores which have products on promotion.

6.2.3.7 Complexity of technology and access to convenience

The complexity of discount websites could limit or aid the learning ability of users in the workplace. This is a finding from the factor analysis for ODI adopters. It reveals that discount websites that are simple to use would garner greater support and approval among adopters than more complex systems. An easy understanding of the

functionality can guide the development of skills which can encourage faster adoption of the technology.

This is supported by the findings of the correlation analysis which shows that discount websites that are clear and understandable, could increase the ease of use and learning ability to operate discount websites (0.614, $p<0.01$). This could increase the skill of operating discount websites (0.694, $p<0.01$). Having basic computer skills could make it easier to become skilful at using ODIs (0.602, $p<0.01$).

6.2.3.8 Organisational readiness (technological resources) and management support

Organisational readiness is another organisational factor which increases the technological diffusion adoption. This is a key finding of the factor analysis for ODI adopters. The lack of sufficient technological resources for employees is identified as an obstacle, which can delay businesses from adopting technology. Having well-trained, skilled personnel can ensure the electronic readiness of the organisation. This concurs with the descriptive analysis for adopters of ODIs, relating to discount websites. While 70% of top managers supported the use of discount websites as an avenue to encourage products or services on promotion, the lack of computers in the workplace presented an obstacle. Seventy percent (70%) of managers believed that this would be inexpensive to remedy. Companies seek technological competitive differentiation that improves the company competitive position and company profile. This should also increase sales and enquiries and extended the customer base.

The factor analysis further provides that technology adoption is higher where organisational factors such as management support and technical feasibility are available. Management plays a crucial role in encouraging technology adoption, as they are required to understand and diffuse the knowledge of the innovation within the organisation. They would therefore need to support the availability of technological resources to ensure that the acceptance of the technology remains at the forefront in achieving positive business outcomes. This is consistent with the key finding for the chi-square analysis for ODI adoption. It revealed that top management drives the commitment to create a positive environment for innovation adoption. They play a

significant role in the company's development of a strategy for using ODIs. The greater the support of senior management can result in a greater adoption of ODI capabilities.

6.2.4 Non-adopters

The factor analysis for non-adopters of ODIs also yields interesting findings. It shows that the business owner's perception of technology, their knowledge of technology and its usefulness are related. When combined with the perceived benefits that the business derives from satisfying the customer's needs, it determines whether the owner accepts and supports the adoption and implementation of the technology. Management support positively impacts on the technological development in organisations.

A key finding worth highlighting from the chi-square analysis is that firms that have not adopted ODIs identify the need to train staff on the required technology. The businesses acknowledge that with greater technology competence, businesses achieve a greater e-business readiness. Management support is necessary to achieve this.

6.2.4.1 Observability

A significant finding for non-adopters of ODIs is that observability helps non-adopters evaluate the risks of a trialable innovation. This was ascertained through the factor analysis. Non-adopters observe the benefits that discount websites have to offer. Using discount websites can have a direct and positive impact on incereasing the number of customers into their stores (0.591, $p<0.05$). This conveys that through observability, businesses are motivated to adopt the technology to keep up with trends of their competitors and industry. The above result implies that without actually using discount websites, non-adopters perceive such sites as helpful.

6.2.4.2 Trialability

Trialable innovations which are easily designed provide less risk and uncertainty for non-adopters, resulting in greater rates of adoption. This was an evident finding from the factor analysis. Managers play a role in the use of discount websites to increase their businesses' sales and customer base, while positively impacting on their company profile and competitive position. This corresponds with the chi-square analysis for non-adopters of ODIs which found that without actually using discount websites, non-adopters perceive such sites as helpful. The company strategy may could involve increasing training of staff (0.747, $p<0.01$) to use the technology and increasing accessibility of the internet (0.646, $p<0.05$) to access the technology. This is shown by the correlation analysis.

6.3 Application of results in relation to Diffusion of Innovation framework

This study utilised of the Diffusion of Innovation theory (Rogers, 1983) for evaluating the adoption of technological innovations. The decision to adopt technology is based on the factors in the company's internal and external environment. In applying the relative advantage construct, businesses may realise the benefits of adopting discount advertising technologies. These businesses use ODIs to increase their sales and customer base, while positively impacting on their company profile and competitive position. Relative advantage is also applied by companies increasing convenience to the consumer, through advertising on discount websites. This relates to a cost saving factor and increased efficiency of use for the consumer.

The compatibility construct relates to the business system (processes, work practices and infrastructure) which could diffuse more freely and easily if it is supported by the managers of the business. The complexity construct is applied with regard how simple, or easy the ODI is to use. With decreased complexity of new technology, management support could increase. This could imply an increase IT skills if management better understands the benefits ODIs.

In applying the observability construct, non-adopters of ODIs would observe technology by businesses that have adopted the technology, and evaluate the benefits. They perceive these as helpful. This leads to the trialability construct, where

non-adopters are willing to try out the new technology. This could involve developing an e-commerce plan that involves increasing training of staff to use the technology and increasing accessibility of the internet to access the technology.

The diffusion of innovation theory (Rogers, 1983) has therefore helped to assess the technological, environmental and organisational factors that have an impact on ODIs usage in companies. It can be established through the study that the decision to adopt ODIs and new technology, such as ODIs, is not completely based on the technology itself. The DOI theory (Rogers, 1983) is therefore found to be an applicable model in relation to the trajectory of ODI adoption by businesses in a South African setting.

6.3.1 Fulfilling of objectives by the study

The objectives of the study were accomplished. This is further explained below.

6.3.1.1 Objective 1 - To review the current business practice of using ODIs at businesses located within 4 malls in Durban (KwaZulu-Natal)

The study fulfils this objective. The results showed that 105 businesses which have adopted ODIs have access to email and/or the internet. There were 105 businesses which had access e-mail. From this, 92 businesses had access to both e-mail and the internet. There were 83 managers and/or owners that had used ODIs previously. Management showed favour towards the promotion of products and services using discount websites. Managers believed that it improved the competitive position and company profile of the company.

Discount websites also served as an option to increase sales and enquiries and extend the customer base. However, the lack of computers in the workplace is presented as an obstacle. Consequently, staff cannot be properly or adequately trained to use these websites, even if they have the basic computer skills to do so. Managers have indicated that discount websites can be easy to use, if it required basic computer skills. These mall-based businesses affirm the use of discount websites as they see it as an option to direct more customers into stores in malls.

Discount websites are seeing as an option to encourage healthy price comparisons between stores, and are supported by managers. There were businesses which had not adopted ODIs, but favoured the use of discount websites to direct more customers into stores. Managers and/or business owners therefore believed there was a need to gain knowledge of online technology that supports business operations.

6.3.1.2 Objective 2 - To investigate the factors influencing the use of ODIs by business in shopping malls

The results showed that factors which lend themselves to the use of discount websites would be those that form the basis for ODI usage. The key factors were:

- Management support;
- The presence of Information Technology skills;
- Compatibility within the business structures of processes, infrastructure and preferred work practices;
- Financial Resources; and,
- External pressure (from competitors, the industry and customers).

Discount websites are seen as drivers for improving the customer base and competitive position of the business to outperform competition. Businesses that want to garner favour with customers would increase convenience for the customer by using discount websites. Businesses supporting the use of discount websites can help customers make informed decisions which afford healthy price comparison by customers between stores. This could potentially increase revenue and expand the customer base. Discount advertising has the potential to direct more customers into stores in malls.

6.3.1.3 Objective 3 - To investigate the possibilities and challenges for business in the adoption of ODIs

The results revealed that challenges that hinder ODI adoption do exist. These challenges included:

- Lack of computers in the workplace;
- Training of staff to use the required technology; and,
- Availability of technological resources
- Availability of financial resources

The possibilities for ODI adoption included:

- Simple websites that are perceived as easy to use and having less risk.
- Training staff will increase confidence ensuring the new technology is easily diffused.
- Capitalising on the potential benefits of discount websites such as:
    - Improved brand exposure;
    - Healthy competition between stores; and,
    - Price comparison that increases convenience for the customer.

6.4 Implications of this research

This study provides several important implications for managers. It covers technological, organisational and environmental conditions.

- Managers are able to assess conditions for ODI adoption and the value they derive from it. Managers need to take contextual factors into consideration. This could help managers to evaluate current and future e-commerce initiatives in terms of relative advantage, compatibility, complexity, observability and trialability. For both e-commerce and adoption of ODIs, managers need to evaluate the readiness of the organisation in adopting new technology. This may entail assessment in terms of firm size, the presence of IT skills, management support, external pressure, financial support and availability of technological resources. This could help managers improve the customer base, competitive position and raising the company profile, which are critical in outperforming competition.

- To better leverage technology companies must also have a compatible organisational framework. This again has relevance for ODIs and e-commerce. This study highlights the compatibility of technology with existing processes, preferred work practices and current company technology infrastructure. Companies that leverage e-commerce connectivity and network platforms benefit to increase sales, raise the profile of the company, extend their customer base, and remain in a competitive position.

- The study also suggests that companies are concerned about their existing technology competence and resources. This includes physical infrastructure, tangible technologies and intangible skills (management and other staff). Therefore, technical and managerial skills can become more significant determinants of ODIs success as technology diffuses and access to them becomes easier. This gears top managers to nurture managerial skills and human resources that possess knowledge of ODIs.

- Companies need to pay more attention to the value of new technology integration. This again should be further explored for ODIs and e-commerce. Managers need to respond to changes in technology to support customer behaviour. Companies can obtain a wealth of information about markets (customer, industry and competition), by adopting new technology. It increase their responsiveness to demand changes and extends the reach of new customers. It also improves customer relationships. This can enhance revenue generation.

- The study reveals that companies need to adjust management practices. Information Technology innovations bring about changes that need to be supported by all levels of staff and management in the organisation. This again is relevant for both ODIs and e-commerce. Remedying the problem of a lack of computers in the organisation and training staff can improve the technical infrastructure and support for technology in organisations. It can help organisations overcome problems and identify new opportunities for innovation

in the organisation. This needs ongoing support by key management staff to ensure successful integration of technology at all levels.

- By including stores with diverse product offerings, across malls that are geographically dispersed, the study considers a broad sample of data representing a variety of businesses. This increases the external validity of this study. This allowed the study to incorporate an understanding of the implementation of technology across different business sectors. It also considers businesses that have differing business statures, i.e. small or large businesses, or local, national or international businesses. This allows business practices to be better understood and transferred from one sector to another.

6.5 Recommendations for future studies

As with any meaningful study, recommendations do emerge as a means to inform other researchers. This study is no different and hereby presents strong recommendations for future studies.

- The relationship between technological, organisational, and environmental factors and technology adoption is worthy of further exploration. There appears to be limited research in this area specifically in the domain of discount advertising in South Africa, and globally.

- Through the understanding of the influence of factors influencing technology adoption, businesses may gain improved revenue. It is recommended that a future study should examine discount websites from a business environment in relation to increasing revenue.

- A better understanding of the influence of factors influencing technology adoption could improve overall organisational performance. This is worth exploring further as can have a significant impact on organisational effectiveness.

- A country-wide study of a similar nature as this study.

6.6 Limitations

- The research method approach used in this study was quantitative. Further exploration on the topic using qualitative or mixed method research may provide further insights. This would be in respect of owners and managers perceptions of ODIs, the adoption of ODIs and other related factors.

- This study focused on ODIs in a South African context, mainly from the perspective of mall-based businesses. The value of this research can be extended by penetrating deeper into consumer's perspectives on the adoption of ODIs from a larger communal perspective (as opposed to only shopping malls). This would provide businesses with detailed, objective, information about online consumers' behaviours.

- The study was conducted in 4 geographical areas only in a sub-urban area, it may not provide insight into ODI adoption in more rural parts of the country.

- The study is limited to the province of KwaZulu-Natal.

- Human aspect: as with any study based on human respondents, respondents may answer the questions based on their emotions (e.g. angry, depressed, and happy). This can affect results.

6.7 Summary

This chapter drew the study to a close. The study revealed that adoption factors such as organisation readiness and external environment are positively related to ODI adoption and discount website technology. The study also demonstrated that ODI technology and use of discount websites may increase company sales, raise the profile of the company and extend the businesses customer base. This helps maintain the competitive position of the business. Factors that hinder successful discount website adoption were established whilst possibilities for effective adoption were determined.

The findings contribute in terms of creating an understanding that the influence ODI adoption has for new technology. In terms of theoretical contributions, this study has extended previous research conducted. It therefore provides greater possibility of advancing the understanding of the importance of adoption factors and ODI adoption. The Diffusion of Innovation theory (Rogers, 1983) was applied in the study and it provided meaningful insights into how companies can adopt ODIs. The study further has relevance in practical application for organisations that would be keen to adopt ODIs or increase the level of adoption. It demonstrates factors that should be considered to develop strategies to enhance managerial decisions, especially where ODIs are considered.

The study creates an awareness for organisations to commit the necessary technical and financial resources in implementation of e-commerce and the use of ODIs. The study also demonstrated that organisations which had not adopted e-commerce or the use of ODIs, realise the benefits and would be willing to consider it to enable them to compete in the industry. Organisations also understand the pressure arising from competitors, the industry and customers. This study also showed that organisations that have existing Information Technology infrastructure and skilled personnel are willing to improve on their current work practices, infrastructure and business processes where the technology is compatible. This study has hence shown that managers need to review their current business practice for e-commerce and ODI adoption by considering the factors which impact on technology implementation. This can help businesses proactively identify possibilities and overcome challenges, thereby harnessing greater potential to achieve benefits from it. The study has also generated significant areas that can inform future studies.

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Appendix 1: Ethical Clearance Form

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

18 April 2016

Mr Vijay Rubinduth Ramballie (963082001)
Graduate School of Business & Leadership
Westville Campus

Dear Mr Ramballie,

Protocol reference number: HSS/0347/016M
Project title: What are the factors influencing the use of discount websites by businesses in a shopping mall? A case study of four shopping malls in Durban, South Africa

Full Approval – Expedited Application

In response to your application received on 04 April 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

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

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

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

Yours faithfully

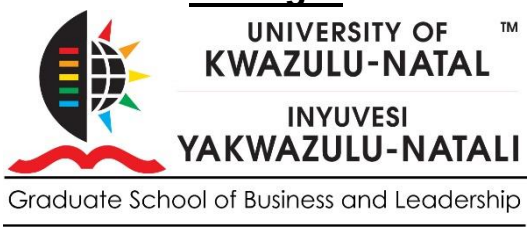
.....
Dr Shenuka Singh (Chair)

/ms

Cc Supervisor: Prathana Amrithlal
Cc Adademic Leader Research: Dr Muhammad Hoque
Cc School Administrator: Ms Zarina Bullyraj

Humanities & Social Sciences Research Ethics Committee
Dr Shenuka Singh (Chair)
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Telephone: +27 (0) 31 260 3587/8350/4557 **Facsimile:** +27 (0) 31 260 4609 **Email:** ximbap@ukzn.ac.za / snymanm@ukzn.ac.za / mohunp@ukzn.ac.za
Website: www.ukzn.ac.za

Appendix 2: Informed Consent Letter for the Marketing/Mall/General Manager



Informed Consent Document – For the Marketing/Mall/General Manager

The University of KwaZulu-Natal
Graduate School of Business and Leadership

I, Vijay Ramballie, am currently registered for my studies leading to the MBA Degree.

One of the requirements to be met for the awarding of the degree is that I should undertake an approved research project leading to the submission of a thesis. The approved topic which I will be investigating is:

"What are the factors influencing the use of discount websites by businesses in a shopping mall? A case study of four shopping malls in Durban, South Africa".

Please note that this investigation is being conducted in my personal capacity. Should you need to contact me regarding any aspect of this research, you can do so either by e-mail on vijayramballie2010@gmail.com or telephonically on 072 304 7935.

My academic supervisor is Mrs Prathana Amrithlal, a lecturer into the MBA programme at the Graduate School of Business and Leadership, University of KwaZulu-Natal. She can be contacted by e-mail at prathana.amrithlal@mighty.co.za or PrathanaA@willowtongroup.com or telephonically at 082 706 8684.

Information gathered in this study will include data retrieved from the questionnaire that I request store personnel to answer. Please note that only summary data will be included in the report. Your anonymity and confidentiality is of utmost importance and will be maintained throughout the study. Your name will not be mentioned in the report but the name of the mall will be identified.

Your participation in completing the questionnaire is completely voluntary and you are under no obligation to complete the questionnaire. You also have the right to withdraw at any time during the study.

I appreciate the time and effort it will take you to participate in this study. I would highly appreciate your participation, as it would help me to complete this research project.

Vijay Ramballie
MBA Candidate at the University of KwaZulu-Natal

Please complete the section below:

This is to confirm that permission has been granted to Mr Ramballie to carry out his MBA research at this shopping mall.

I _____(Full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

The mall name may / may not (please indicate by circling which is applicable) be used in the research report.

The scope of the research has been explained to us.

Name of manager: _____

Signature: _____

Mall: _____

Date: _____

Contact details: Email: _____

Telephone: _____

Appendix 3: Informed Consent Letter for the Respondents in Mall-Based Businesses

Cover sheet and Informed Consent for survey

Dear Participant,

You are invited to participate in our survey. It will take approximately 20 minutes to complete the questionnaire. Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. Anonymity and confidentiality is of utmost importance and will be maintained throughout the study.

You are at liberty to withdraw from the project at any time, should you desire to do so. If you have questions at any time about the survey or the procedures, you may contact Vijay Ramballie by email at ramballie@ukzn.ac.za.

Thank you very much for your time and support.

Topic: What are the factors influencing the use of discount websites by businesses in a shopping mall? A case study of four shopping malls in Durban, South Africa

Introduction

By 2016, the South African internet economy is expected to grow by 2.5% with an expected net worth greater than R59 billion (Goko, 2013). The advances in technology necessitate businesses to adapt to the changing communication pattern in connecting to consumers. Consumers are becoming more price and promotion sensitive fueling and driving the marketplace with a demand for bargains or discounts and this is quickly affecting the methods by which business is conducted. The shopping mall environment is often affected where businesses compete in the brutal price market for the consumers willingness to spend (Salehi, Mirzaei, Aghaei and Abyari, 2012). There are many discount websites (such as coupon and deal websites) which businesses use which I will refer to as online discount intermediaries (ODIs).

The opportunity to improve shopping for both online and traditional environments exists for discount platforms (Wallace, 2013). Businesses need to find ways of influencing consumer preference. Offering discounts have a significant influence on consumer preference (Thang & Tan, 2003). Related research on businesses use of technology explores managements attitude and businesses current infrastructure and resources (AlGhamdi, 2012; Ndayizigamiye, 2012). These are important factors that support organisational readiness for using e-marketing so that businesses create convenience for the consumer and improved sales promotions for the business (Salehi, Mirzaei, Aghaei and Abyari, 2012).

The Purpose of the Study

To explore the factors influencing the use of discount websites by business in shopping malls. This study looks at the intersection between online and traditional consumer behaviour and how business are responding to these.

Objectives of the Study:

I. To review the current business practice of using ODIs at 4 malls in Durban, assuming it is representative of other businesses in South Africa

II. To investigate the factors influencing the use of ODIs by business in shopping malls

III. To investigate the possibilities and challenges for business in using popular ODI's

Having read this, please complete the details requested below. The business name will be coded for analysis and not be disclosed in the main report (unless you've indicated permission for the report to include it). We will also use the information below to communicate feedback to you, or contact you if there are queries with the questionnaire you completed. Part of the research involves providing a summary report which we can only give to you if the information below is provided accurately.

Please complete the section below:

I understand the contents of this document and the nature of the research project, and:

☐ I agree to participate in the research project

☐ I don't agree to participate in the research project

(tick the appropriate box)

Where you ticked the first box, please provide the information below:

Name of Participant: _____

Signature: _____

Mall: _____

Date: _____

Email Address: _____

Permission to use store name in report:

☐ I allow the store name to be used in the research report

☐ I don't allow the store name to be used in the research report

(tick the appropriate box)

Appendix 4: Questionnaire

Section 1: General Demographics		
1. Your Age:		25 or Younger
		26 to 35
		Above 35
2. Your Role in the Company:		Owner and Manager
		Owner
		Manager
3. The business is:		International
		National
		Local
4. How long has your business been established for?		Less than 1 year
		From 1 year to less than 5 years
		5 years or more
5. Which business sector best describes your company's primary business?		Books and stationery
		Cell phones
		CD's, Computer, Electronics and Audio
		Curios, gifts and novelties
		Footwear, fashion and jewellery
		Health and Beauty
		Food and Restaurant
		Furniture and Deco
		Games, hobbies, and toys
		Travel
		Other: (Specify)_____
6. Which area/aspect of E-Commerce is currently used by your company (please tick wherever applicable)?		Customer payment by credit card through the company's website
		Placing orders over the Internet
		Other (Specify): _____
		None – E-Commerce is currently not used at all

Section 2: Information about e-commerce adoption (Part 1)

When does your company expect to have the following E-Commerce capabilities?

	Have it now	Will have it in a year	Will have it in 3 years	Will have it in more than 3 years	Will never use it
1. A company strategy (or plan) for using E-Commerce					
2. A computerised database of your company's customers					
3. A computerised inventory of your company's products or services					
4. Company electronic mail (E-mail)					
5. Company access to the Internet					
6. A website demonstrating your company's products or services					

If you HAVE adopted E-Commerce proceed to Section 2, **questions 7 to 35**

If you have NOT adopted E-Commerce tick the option "have not adopted E-Commerce" and proceed to Section 3, **questions 36 to 41**

Have not adopted E-Commerce

Section 2: Information about e-commerce adoption (Part 2)

The following determinants (factors) have influenced the decision to adopt Ecommerce in your company

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. Owner/ manager support					
8. Presence of IT skills in the company					
9. Owner/manager understanding of the benefits of E-Commerce					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10. External pressure from competitors					
11. External pressure from industry					
12. External pressure from customers					
13. Compatibility with company's business processes					
14. Compatibility with existing company's technology infrastructure					
15. Compatibility with company's preferred work practices					
16. Availability of financial resources to adopt E-Commerce					
17. Availability of technological resources to adopt E-Commerce					
18. Size of the company					
19. Business type of the company					
20. Other (Please Specify)					

Section 2: Information about e-commerce, specifically ODI's, adoption (Part 3)					
With regard to Online Discount Intermediary (ODI) adoption in your company, indicate your level of agreement/disagreement with the following statements					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21. Top management is enthusiastic about the adoption of ODI					
22. Staff have no experience in operating ODI websites					
23. Learning to operate an ODI website is easy					
24. The interaction with ODI's is clear and understandable					
25. It is easy to become skilful at using ODI's					
26. E-Commerce requires basic computer skills					
27. It is expensive to implement ODI's because of lack of computers in the workplace					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
28. The company relies on an external third party for the maintenance of web-based activities					
29. Improve the competitive position of your company					
30. Raising/improving company profile					
31. Increasing sales/enquiries					
32. Extending customer base and expands business reach					
33. Keeping ahead of/abreast of competition					
34. Mall search functions/filters incorporated into ODI's will direct more customers into stores in malls					
35. ODI's that allow customers to compare prices for stores within malls will create healthy competition between stores					
Thank you for your participation in this survey, we appreciate your feedback.					

If you have NOT adopted E-Commerce tick the option "have not adopted E-Commerce" and proceed to Section 3, **questions 36 to 41**.

Section 3: Information about perception of electronic commerce					
Indicate your level of agreement/disagreement with the following statements on your perception of e-commerce					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
36. Company requires basic computer skills					
37. Company needs to gain knowledge of the required online technology					
38. Company needs to train staff on use of online technology					
39. Company wishes to improve brand exposure using online marketing					
40. Company needs to use discount websites (ODIs)					
41. Company needs to use ODI websites that direct customers into their stores					
Thank you for your participation in this survey, we appreciate your feedback.					