Delivery Issues in E-Commerce: The Case of Saudi Arabia

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Abstract

The rapid proliferation of internet has turned the growth of E-commerce into a global phenomenon including both, in the developed and developing countries. Several studies have been conducted in the perspective of consumer level E-commerce adoption for different developed countries. There felt a need to look into the adoption of E-commerce on other countries, especially the developing countries. This study aims at investigate the delivery issues on E-commerce, and how does it concerns consumers. The delivery factors (cost of delivery, duration of delivery, and the ability to deliver products to any destinations) are involved in the study in order to find their importance in consumers' decisions in online shopping. Saudi Arabia, like many other developing countries, has – to a certain extent – acceptable delivery systems. However, the delivery situation is not as strong as it is in the developed world, thus, examining the delivery systems in developing countries could provide different results. This Study verified the importance of the delivery factors in consumers' decisions with regard the preference and willingness of purchasing from online stores. Additionally, the study identified the importance of the delivery factors in purchasing different types of products. In general, delivery factors are highly important in purchasing expensive and sensitive products. These results assist all players in E-commerce (governments, business, and individuals). Further, the study provides extensive details about online shoppers in Saudi Arabia which would help in improving E-commerce in Saudi Arabia. Generally, the situation of the delivery system in E-commerce in Saudi Arabia is not as bad as it is in other developing countries.

Key words:

Delivery issues, E-commerce, Saudi Arabia, Delivery factors, types of products.

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Tables of contents

List of figures

List of tables

Chapter One: Introduction

1.1. Introduction

This chapter introduces research overview by detailing the research concept and context. Firstly, research concept answers what is the study about besides mentioning the main theme of the research. Secondly, the research context discusses the reason behind conducting the study. Finally, the aims and objectives are identified followed by an overview of the structure of this research.

1.2. Research concept

A strong influence of Internet is obvious on life, from work to leisure, information to entertainment, study to play, socializing to business; everywhere internet is playing an important role specifically in economy (Baig, Raza, & Farooq, 2011). With its growing popularity, the Internet (or e-commerce) is now a popular shopping channel that is accessible to most consumers. E-commerce can be defined as the use of the Internet and other networking technologies in order to buy, sell, transfer, or exchange products or services (Khoshnampour, Nosrati, & Nosrati, 2011; Turban, Lee, King, McKay, & Marshall, 2008; Ahmed, Zairi, & Alwabel, 2006). According to Turban, et al., (2008) e-commerce from a business perspective, is doing business electronically via electronic networks. Based on the nature of the transactions or the relationship among participants, the most popular types of e-commerce are business-to-business (B2B), business-to-consumer (B2C), and business-to-government (B2G).

The adoption of e-commerce has opened new sources of products as well as giving customers greater choices regarding comparison of efficiencies achieved by business (Simon, 2004). The adoption of e-commerce would dramatically change shopping

tradition from physical markets to virtual markets. In other words, e-commerce would change businesses from marketplace to marketspace. The global market "Internet" can provide great benefits for both businesses and individuals by accessing the market remotely. Businesses can find new method of offering their products and services locally and globally because the Internet facilitates the cross-border transactions and information flows (Quelch & Klein, 1996).

Internet penetration is one of the key factors in the adoption of e-commerce. Internet is the dominant method of remote shopping and provides services virtually. As a result of the high Internet penetration among their populations, developed countries are able to diffuse e-commerce to their advantages (Vaithianathan, 2010). Completing a transaction through e-commerce requires two crucial components: payment system and delivery system. The importance of obtaining solid and reliable payment and delivery systems is widely discussed (Anigan, 1999; Bingi, Mir, & Khamalah, 2000; Cheung, 2001; Palumbo & Herbig, 1998; and Hawk, 2004).

1.3. Research context

Saudi Arabia (The Kingdom of Saudi Arabia) is one the developing countries that have adopted e-commerce recently. Like many other developing countries, Saudi Arabia is a relatively new follower in the utilization of information and communication technologies (ICT) and e-commerce. Even though Saudi Arabia has the largest and fastest growth of ICT in the Middle East, e-commerce growth is not developing at the same speed (Saudi Ministry of Commerce, 2001; Alfuraih, 2008; cited in AlGamdi, Drew, & Al-Ghaith, 2011). Several studies have attempted to find the reasons behind the slow e-commerce growth in Saudi Arabia. It has been found that poor IT infrastructure, trust and privacy issues, cultural issues, and lack of clear regulations, legislation, rules and procedures, are the reasons for the weakness of e-commerce development (Albadr, 2003; Aladwani, 2003; Alfuraih, 2008; Alrawi and Sabry, 2009; Alghaith, et al., 2010).

In the world of e-commerce, the marketplace has been expanded and therefore necessitates more frequent delivery systems that can reach consumers regardless of their disparities and geographical patterns. Since e-commerce can open up the global marketplace to consumers and attract even the most remote consumers to this marketplace, the need for reliable and efficient delivery system is essential, that is, capable to support significant fluctuations in geographical delivery patterns (2). The requirements for any successful delivery system are: 1) dependable post service; 2) alternative delivery; 3) absolute addressing; 4) broader reach; and 5) increased volumes (2). Usually, the issue of delivering an online order comes at the bottom of the list of the crucial issues in e-commerce adoption. Nonetheless, the necessity of possessing at least one method of delivering materials to customers is seen as one of the requirements of the success of the e-commerce sites (Hawk, 2004).

However, hardly any study has focused on the importance of the delivery service in a developing country like Saudi Arabia. Also, the literature lacks of studies that discuss the role of the delivery service in affecting consumers' decisions towards online shopping. Therefore, this study discusses the importance of the delivery service in affecting consumers' attitudes in terms of the preference and willingness to purchase from online stores.

1.4. Aims and objectives

In this study, it is intended to achieve the following aims and objectives:

- Examine the importance of the delivery factors (cost of delivery, duration of delivery, and the ability to deliver products to any destination) in consumers' decisions in preferring or rejecting online shopping.
- Examine the role of type of products in affecting the importance of the delivery factors.
- Provide an extensive overview of online shoppers in Saudi Arabia.

- Detail consumers' experiences in purchasing different types of products.

1.5. Thesis structure

Introduction: This chapter introduces the basic concept of study and discusses the research concept, context, aims and objectives and brief overview of the entire thesis.

Literature Review: This chapter identifies the theoretical background of e-commerce, discuses the different types of e-commerce and the benefits of adopting e-commerce. It outlines the requirements of successful e-commerce as well as the challenges in the deployment of e-commerce. Further, it discusses the delivery system in the developing countries and in Saudi Arabia in particular.

Research Gap and Questions: this chapter discusses the need for conducting this research, identifies the gap that is presented in the literature, and states the overall research questions.

Methodology: This chapter provides the basic methodologies involved in research and details the approaches, techniques and systematic steps taken to conduct this research.

Findings: This chapter presents the statistical analysis of empirical research conducted, and data tables for testing hypotheses are presented.

Discussion: This chapter concludes the empirical findings and the literature about the importance of the delivery factors in consumers' decisions. It further details online shoppers' experiences and preferences towards online shopping.

Conclusion: This chapter summarizes the objectives of the study and answers the research questions.

Limitations and implications: finally this chapter outlines the limitations that were experienced during conducting this research. It further draws recommendations for

future research. The implications of the study are discussed next which can offer helpful points that may assist all parties (businesses, governments, and academics).

Chapter Two: Literature Review

2.1. E-commerce definition

With the development of the Internet and its commercialization since 1994, a new environment of commerce has been created which is E-commerce (EC). E-commerce can be defined as the use of the Internet and other networking technologies in order to buy, sell, transfer, or exchange products or services (Turban, King, Lee, & Viehland, 2004 cited in Vaithianathan, 2010; Khoshnampour, et al., 2011; Turban et al., 2008; Ahmed, et al., 2006). Another broad definition of e-commerce was introduced by the Organization for Economic Cooperation and Development (OECD) as: "an electronic transaction is the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organizations, conducted over computer mediated networks. The goods and services are ordered over those networks, but the payment and the ultimate delivery of good or service may be conducted on or offline" (p. 89). Thus, e-commerce is a mixture of technologies, infrastructures, processes, and products that brings together whole industries and narrow applications, products and users, information exchange and economic activities into a global marketplace which is the Internet (9).

Moreover, Turban et al., (2008) define e-commerce from five different perspectives. From a business perspective, EC is doing business electronically via electronic networks. From a service perspective, EC is a tool that addresses the desire of governments, companies, consumers, and management in order to reduce service cost, improve the quality of customer service, and increase the speed of service delivery. From a learning perspective, EC is an enabler of online training and education in schools, universities, and other organizations including businesses. From a collaborative perspective, EC is the framework for inter- and intraorganizational collaboration. From a community perspective, EC provides a

gathering place for community members to learn, transact, and collaborate such as Facebook and MySpace. Furthermore, Sharma (2000) has argued that e-commerce is adopted to accomplish six core business goals: “empowerment of customers, enhancement of trade, increased business agility, extension of enterprises in virtual manner, evolution and invention of products and services, and the development of new markets and audiences” (p. 28).

Defining E-commerce, however, faces some difficulties and misunderstanding. Due to the relationship between the Internet (as a marketplace) and e-commerce, there is no universal definition of e-commerce (Al-Fadhli, 2011). That is, the Internet and its participants are frequent and their relationships are evolving rapidly, thus, the participants of e-commerce are evolving frequently (Ahmed, et al., 2006). In addition, defining e-commerce varies among academics and researchers. The widely used definition of e-commerce is the act of selling, buying, exchanging, or transferring of products or services among various players (individuals, firms, governments, and other public or private organizations) conducted over mediated networks such as the Internet. As a result, this definition not only includes the monetary transaction of goods or products between participants, but also includes the exchange of services (e.g. e-government, and consultation etc.) or transfer of information (e.g. e-learning). However, this result is seen as confusion between the definition of e-commerce and e-business. According to Turban et al., (2008), e-business refers to a broader definition of e-commerce which includes not just the buying and selling of goods and services but also includes servicing consumers, collaborating with business partners, conducting e-learning, and conducting electronic transaction within an organization. In other words, e-business is the use of Internet and other information technologies to support commerce and improve business performance. Interestingly, the terms e-business and e-commerce are used interchangeably as can be seen in the previous definitions. However, E-commerce in this study is the act of selling and buying of goods and services over computer networks (e.g. Internet) which includes a monetary transaction.

2.2. Types of E-commerce

Type of E-commerce refers to the classification of e-commerce by the nature of the transactions or the relationship among participants. The most popular types of e-commerce are business-to-business (B2B), business-to-consumer (B2C), and business-to-government (B2G). (B2B) e-commerce is concerned with businesses selling either products or services to each other (e.g. between manufacturer and wholesaler, or between a wholesaler and a retailer), with one organization selling and another is buying (Ahmed, et al., 2006; Vaithianathan, 2010; Quader, 2007; Nemat, 2011; Turban et al., 2008). (B2B) e-commerce is defined as market-link transaction in which businesses depend on computer-to-computer communications as a fast, economical, and dependable way to conduct business transaction (Vaithianathan, 2010). Compared with other types of e-commerce, the volume of (B2B) transactions is much higher than the volume of e-commerce types with over 85 percent of e-commerce volume (Nemat, 2011; Turban, et al., 2008). The reason behind this high volume is that in a typical supply chain there will be many (B2B) transactions involving sub components or raw materials, whereas in (B2C) transaction there will be only one transaction, specifically sale of the finished product to the end customer (Nemat, 2011).

Another form of e-commerce is (B2C) EC that describes activities of businesses servicing end consumer with product and/or services. Basically, (B2C) e-commerce is defined as a transaction of products or services from businesses to individual shopper (Turban, et al., 2008; Ahmed, et al., 2006; Vaithianathan, 2010; Nemat, 2011). B2C e-commerce has changed how organizations and consumers interact. That is, (B2C) EC is marketplace transaction where consumers find out about products differently through electronic publishing, buy products differently using electronic cash and secure payment systems, and have products delivered differently. When most people think of B2C e-commerce, they think of Amazon, the

online bookseller that launched its site in 1995 and took place as one of the most popular retailers. B2C e-commerce entities are the key players in the Internet exchange process. Based on Shaw's (1999) structure, the Internet exchange process is viewed as an interaction of four different entities: the buyer, the seller, the third party, and technology. Buyers, sellers, and third parties can interact via an electronic market structure supported by information technology. In B2C e-commerce, buyers are individual consumers and sellers could be online retailers, intermediaries or suppliers. Third parties are impartial organizations including individual mechanisms, delivering business confidence, through an electronic transaction, using commercial and technical security features (Lekkas, Katsikas, Spinellis, Gladychev, & Patel, 1999; Turban, et al., 2008).

B2G is another type or e-commerce which is a derivative of (B2B) e-commerce and often referred as "public sector marketing" which involves marketing products and services to various government levels (Nemat, 2011; Turban et al., 2008). B2G networks offer a platform for businesses to provide products and services for government agencies. Those three types of e-commerce (B2B, B2C, and B2G) are the common types of e-commerce. However, there are other types of e-commerce which are summarized with some examples in table 2-1 (Turban et al., 2008; Nemat, 2011; Vaithianathan, 2010).

Table 2-1, Classification of e-commerce

E-commerce Type	Definition	Example
Business-to-business (B2B)	E-commerce model in which all of the participants are businesses or other organizations	General Motor (GM) electronic market "covisint.com"
Business-to-consumer (B2C)	E-commerce model in which businesses sell to individual shoppers.	Amazon.com
Business-to-government (B2G)	E-commerce model in which businesses offer their products and	

	services to governments agencies.	
Consumer-to-business (C2B)	E-commerce model in which individuals sell products and services to organizations via the Internet	Priceline.com
Business-to-employee (B2E)	E-commerce model in which businesses deliver services, information, and products to their individual employees.	Maybelline.com
Consumer-to-consumer (C2C)	E-commerce model in which individuals sell directly to individuals.	Auction sites
Government-to-employee (G2E)	It is one form of e-government model in which government units communicate with their employees.	

2.3. Type of product sold online

The products offered online can take different forms depending on the nature of the product, the process, and the delivery method. According to Turban et al., (2008) "e-commerce can take several forms depending on the *degree of digitization* (the transformation from physical to digital) of (1) the *product* (service) sold, (2) the *process*(e.g. ordering, payment, fulfillment), and (3) the *delivery method*" (p. 4). This is, a product might be physical or digital, the process might be physical or digital, and the delivery might be physical or digital. As a result, a framework was created by Whinston, Stahl, and Choi (1997 cited in Turban, et al., 2008) which explains the possible configurations of these three dimensions (Figure 2-1).

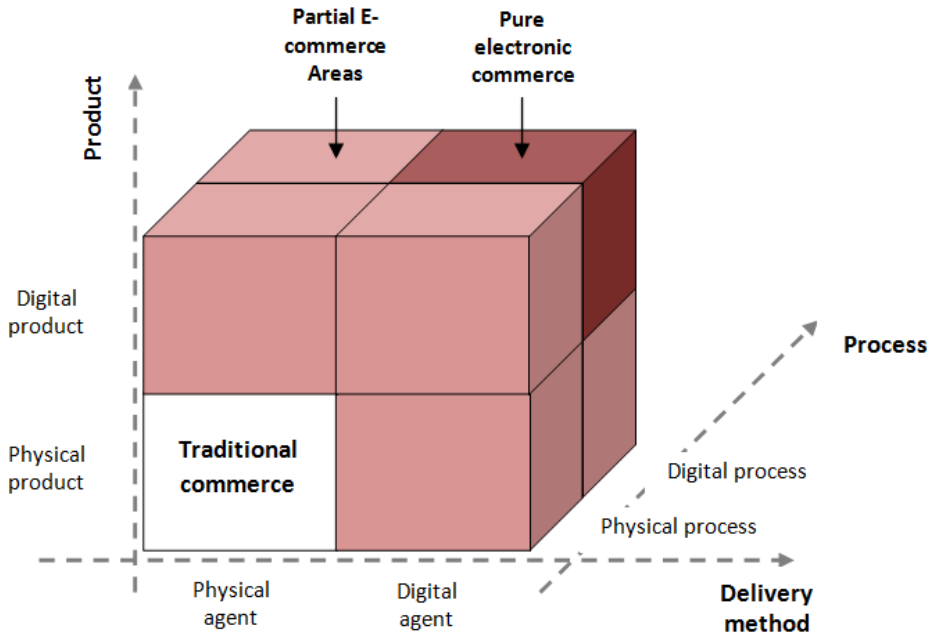

Figure 2-1, The dimensions of e-commerce. Source: Whinston et al., (1997)

Eight cubes were created in which each has three dimensions. In traditional commerce (lower-left cube) the three dimensions (product, process, and method of delivery) of the cube are physical, whereas, in the pure e-commerce (upper-right cube) all three dimensions are digital (Turban, et al., 2008; Whinston, et al., 1997). All other cubes combine a mixture of digital and physical dimensions. The product axis refers to the commodities that are exchanged. For instance, a printed newspaper is a physical product, whereas its online version is a digital product. The process axis refers to the interaction between market agents (seller, buyers, intermediaries, or other third parties) regarding products or other activities. The process includes product selection, production, market research, searches, ordering, payment, delivery, and consumption (Whinston, et al., 1997). For example, visiting a store is a physical process, whereas searching on the web is a digital process. The third axis, the delivery method, refers to whether the market players are physical or digital. Example of digital agents is a web store and an online shopper, while example of physical agent is a department store and a shopper in a mall.

The classification of organizations, therefore, is affected by this framework whether they are pure e-commerce, partial e-commerce, or traditional commerce organizations. Pure e-commerce businesses those conduct their business solely online and all three components (process, product, and delivery method) are digital (Turban, et al., 2008; Whinston, et al., 1997). In pure e-commerce, all activities occur online including production, payment, delivery, and consumption. In contrast, traditional commerce organizations (or as referred as brick-and-mortar companies) that conduct their business activities off-line, and all three components are physical (Turban, et al., 2008; Whinston, et al., 1997). The third category is a partial e-commerce (click-and-mortar or click-and-brick) which is allocated for companies that conduct some e-commerce activities, usually as an additional marketing channel (Turban, et al., 2008). For example, product might be physical, but marketing and payment might be conducted online. In spite of not being pure e-commerce, organizations in the partial e-commerce areas are considered as e-commerce businesses as well (Turban, et al., 2008). Moreover, most of the current e-commerce applications and issues fall within partial e-commerce areas (Whinston, et al., 1997). In addition to organizations that are categorized based on their e-commerce activities, products are classified based on their viability of being sold in e-commerce channel.

Commodities vary in terms of the possibility and viability of being traded in e-commerce world. Peffers (2001) examines the likelihood for seven types of products for being successfully sold online. The author categorizes the products and services into seven types based on several criteria. The first category is *pure generic information* (e.g. downloaded software, news, and music etc). The characteristics of this type of product make it suitable to be successfully distributed online which are no physical content, require only automated customization, and precisely specified. The second category is *pure customized information* (e.g. consulting services, university teaching, and investigation etc). This type of product requires extensive

customization by human, and requires offline delivery. The third category is *mostly information product, producer sales* (e.g. packaged software) which is mostly information with some physical components. The fourth type is *mostly information product, reseller sales* (e.g. Amazon.com). From consumer's perspective, books and similar products are mostly information products, but from online retailer's perspective, they are physical products with some information components. The next category is *high value products with low specification requirements* (e.g. electronic gadgets, computers, and industrial parts etc). For this type of product, customization is not necessary, and it can be easily specified. The characteristics of this type make it suitable to be sold on e-commerce channel. The next category is *high value products with high specification requirements* (e.g. fashion clothing, and real estate). This category requires high information, especially requirements for information that is difficult to specify. The last category is *low value products with high information requirements* (e.g. Groceries, and fresh meat etc). This type is characterized by high levels of information and physical content, as well as the difficulty of specifying the product. Table 2 summarizes these categories with Peffers (2001) findings about the viability of being sold successfully in e-commerce channel.

However, recent studies and figures contradict Peffers's findings regarding the classification of products that can be sold online. According to State of Retailing Online (2006) report, the largest categories of products sold online in 2006 are computer hardware and software ($16.8 billion), autos and auto parts ($15.9 billion), and apparel, accessories, and footwear (13.8 billion), and cosmetics and fragrances. Another study by Maravilla (2011) indicates that the most popular online purchases are computer and related products (40%), books (20%), travel (16%), clothing (10%), recorded music (6%), subscriptions (6%), gifts (5%), and investments (4%). However, these figures are relative different to what Nielson (2010 cited in AlGamdi, et al., 2011) reported about the top ten product and services that are sold online which includes books; clothing, accessories, and shoes; airline ticket and reservations; electronic equipment; tour and hotel reservations; cosmetics and

nutrition suppliers; event tickets; computer hardware; videos, DVD, and games; and groceries.

Table 2-2, Products and services in E-commerce Source: Peffers (2001)

Product type	Example	Example firm	Information content	Physical content	Customization	Viable EC channel?
Pure generic information	Downloaded software; news	McAfee	VH	None	None	Yes
Pure customized information	Consulting services	Gap Gemini	H	L	H	No
Mostly information, producer	Packaged software	Intuit	H	L	None	yes
Mostly information, reseller	Books	Amazon	H	L	None	Doubtful
High value, low specification requirements	Gadgets, computers	Dell	L-M	H	L	Yes
High value, high specification requirements	Fashion clothing	Levis	H	H	L	No
Low value, high specification requirements	Groceries	Webvan	H	H	L	No

2.4. Benefits of E-commerce

The adoption of EC has opened new sources of products as well as giving customers greater choices regarding comparing efficiencies achieved by business (Simon, 2004). The adoption of EC would dramatically change shopping tradition from physical markets to virtual markets. In other words, EC would change businesses from marketplace to marketspace. The global market "Internet" can provide great benefits for both businesses and individuals by accessing the market remotely. Businesses can find new method of offering their products and services locally and globally because the Internet facilitates the cross-border transactions and

information flows (Quelch & Klein, 1996). In addition, the Internet offers customers new interactive capabilities, and customized information which might lead to attracting new customers (Awoyelu, Tangba, & Awoyelu, 2010). Utilizing of e-commerce, for instance, could be useful in providing an access to a wide range of markets nationally and internationally; updating information remotely; and lowering the transaction costs (Baron, Shaw, & Bailey, 2000; Brunn, Jensen, & Skovgaard, 2002; Essig, & Arnold, 2001; Fariselli, et al., 1999; Senn, 2004; Tumolo, 2001; cited in Vaithianathan, 2010). In addition to the remote shopping, customers may be able to access a variety of markets nationally and internationally which will facilitate customers' purchase decisions with regard to the quality and cost of the products (or efficiency and effectiveness of the products).

Business sector, however, utilizes most of the benefits of EC more than the other players. Businesses can find new methods of selling and offering their services and products abroad using EC. Some of the benefits of EC for businesses include improvement on revenue generation by integrating EC into their value chain activities (Brynjolfsson, &Kahin, 2000), creating potential for partnership with suppliers and vendors (Koch, 2002; Tumolo, 2001), improvement in customer services (Bakos, 1998; Burton, & Mooney, 1998; Tumolo, 2001), and the ability to access the market at any time (Deeter, et al., 2001; Lin, & Hsieh, 2000). Further, EC can help in improving flexibility in administration and partnership (Brunn, et al., 2002), lowering transaction costs (Bakos, 1998; Clemons, et al., 1993; Malone, et al., 1987; Tumolo, 2001), product and service differentiation (Brunn, et al., 2002; Burton, & Mooney, 1998; IOAI, 2005), the ability to enter supply chain for larger organizations (Erbschloe, 1999; Korchak, & Rodman, 2001). In addition, businesses can use EC in order to provide relevant or customized products/services for customers which mean that businesses can attract new customers (Vaithianathan, 2010). Chan (2001) and Schneider (2002) summarized the benefits of e-commerce for small and medium size enterprises (SMEs) as:

- E-commerce offers unmatched saving in terms of transaction costs.
- The reduction of cost in advertising and promoting.
- Speed communication between buyer and seller.
- Companies can shorten their traditional supply chain, minimize transport obstacles, and reduce delivery cost.
- Physical limitations of time and space are removed.

2.5. Information and Communication Technologies (ICT) and E-Commerce

2.5.1. Internet penetration and EC

Internet penetration, as mentioned earlier, is one of the key players in the adoption of e-commerce. Internet is the dominant method of remote shopping and provides services virtually. In spite of the noticeable importance of Internet penetration in the deployment of e-commerce, diffusion of the Internet is not uniform between developed and developing countries. As a result of the high Internet penetration among their populations, developed countries are able to diffuse e-commerce to their advantages, whereas developing countries are lag behind (Vaithianathan, 2010). Petrazzini and Kibati (1999) noted that “a closer look reveals great disparities between high- and low-income regions in terms of both Internet hosts and uses. More than 97% of all Internet hosts are in developed countries that are home to only 16% of the world’s population” (p. 31).

2.6. E-commerce requirements

2.6.1. Government E-Readiness

The first and most important player in e-commerce adoption is the government of a country. It plays a major role in affecting the implementation of e-commerce, especially in developing countries (Ang, Tahar, & Murat, 2003; King, Gurbaxani, Kraemer, McFarlan, Raman, & Yap, 1994; Montealegre, 1999, cited in Molla, & Licker, 2005). A government can encourage the private sector to adopt e-commerce by facilitating supportive infrastructure, legal and regulatory framework, and e-commerce use directive. The importance of government participating in e-commerce has been discussed by several authors. Molla and Licker, (2005) have tested the effect of government pressure on e-commerce adoption, and they have found a high percentage of adoption among firms that have perceived high government pressure. The role of governments, thus, is critically important in facilitating and enhancing the implementation of e-commerce by firms as well as other players such as citizens and organizations.

2.6.2. Market Forces E-Readiness

Market forces e-readiness refers to the adoption and use of e-commerce by a firm's competitors, customers, suppliers, and other partners (Molla, & Licker, 2005). That is, firms adopt e-commerce in response to the pressure that is found in the social system of the organization. For example, the role of a business's market forces (suppliers, clients, and other partners) is seen as one of the crucial drivers for the adoption and utilization of e-commerce. However, the role of the market forces e-readiness varies from one country to another, especially between developed and developing countries (Molla, & Licker, 2005).

2.6.3. Supporting Industries E-Readiness

Besides government and market forces e-readiness, the implementation of e-commerce depends of a number of supporting industries. The development of these industries also may facilitate the adoption of e-commerce in terms of offering available efficient, rapid, and sometimes special access to e-commerce inputs (Molla, & Licker, 2005). Supporting industries in e-commerce adoption may refer to most aspects of an economy. However, there are three such industries that are critical in e-commerce implementation, especially in developing countries. These include the availability and affordability of services from the IT industry, the institutionalization and development of the financial sector, and the penetration and reliability of carrier and transportation services.These three industries are relatively weak in developing world in comparison to their counterpart in developed world. Molla and Licker, (2005) found that in most developing nations, the IT industry is not adequately developed in order to play the push roles, the financial sector is not mature enough to complete the electronic transaction, and transportation and carrier facilities are insufficiently developed.

2.7. Digital divide

In contrast to the developed world, the Internet adoption and gains in efficiency and productivity from the Internet have not been achieved yet in the developing countries. This gap between the developed and developing countries has led to the introduction of the term “Digital Divide” which refers to the disparity in Internet access and technology between developed and developing countries or the gap between Internet/technology “haves” and “have-nots” (Simon, 2004). The “digital divide” is widely used in order to describe the Internet/technology inequalities between developed and developing countries. According to OECD (2001) “The term “digital divide” refers to the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies (ICT) and to

their use of the Internet for a wide variety of activities" (p. 5). Digital Divide is a serious matter for those who are currently behind in Internet access. Also, they are not able to enjoy many benefits of using the Internet in terms of participating in society's economic, political, and social life.

2.8. E-Commerce in developing countries

2.8.1. Advantages of electronic commerce in developing countries

The adoption of e-commerce has brought great potential for the developing (or less developed) countries. Similar to the early adopters of e-commerce in the developed world, all players in developing regions (governments, business, and individuals) may gain benefits from the diffusion of EC. For instance, individuals can access a wide range of markets nationally and internationally; update information remotely; and lower the transaction costs (Baron, Shaw, & Bailey, 2000; Brunn, Jensen, &Skovgaard, 2002; Essig, & Arnold, 2001; Fariselli, et al., 1999; Senn, 2004; Tumolo, 2001). Additionally, the adoption of EC has opened new sources of products as well as giving customers greater choices regarding comparing efficiencies achieved by business (Simon, 2004). Business sector, however, utilizes most of the benefits of EC more than the other players. Businesses can find new methods of selling and offering their services and products abroad using EC, and the Internet, as a main way of facilitating cross-border transactions and information flows (Quelch & Klein, 1996).

2.8.2. Limitations of EC in developing countries

Adopting e-commerce in any region of the world can suffer from certain shortcomings and difficulties. Despite the fact that the developing world was not the first adopters of e-commerce, they still struggle to implement complete e-commerce from the developed countries. Most of the developed countries have faced a great

number of challenges in the adoption of e-commerce and have overcome a large number of these difficulties. Developing countries, however, still face significant barriers that impede the adoption of e-commerce. These barriers include technical challenges, societal challenges, legal and standards challenges, and financial challenges.

Due to the fact that most of the previous studies were concentrating on the adoption of e-commerce in developed countries, there are few studies that examine e-commerce in the developing world. These studies about the developing countries either focus on several developing countries (Petrazzini, & Kibati, 1999; Plant, 1999; Travica, & Olson, 1998; Shareef, Kumar, & Kumar, 2008; Papazafeiropoulou, 2004; Simon, 2004), concentrate on one developing country and evaluate its e-commerce (Peha, 1999; Clark, 1999; Lee, 1999; Kamel, & Hussein, 2002; Park, 2008; Ahmed, Zairi, &Alwabel, 2006), or compare e-commerce adoption between two or more countries from the developing and developed countries (Slyke, Belanger, & Sridhar, 2005; Hawk, 2004). In the following paragraphs, the limitations and barriers of e-commerce adoption are discussed that are found in the related literature.

2.8.2.1. Technical challenges

Companies that attempt to use the Internet to market in the developing countries may face crucial challenges more than their counterparts in the developed world. Due to the link between e-commerce and other technological innovations, the deployment of e-commerce relies on the implementation of these innovations beforehand. These players include Internet, Information and Communication Technologies (ICT), and telephone lines.

The importance of Internet, as one of the main channels for conducting e-commerce, is discussed in most of the previous studies. Lack of Internet accessibility is one of the main threats that face the deployment of e-commerce (Petrazzini, &Kibati, 1999; Travica, 2002; Davis, 1999; Hawk, 2004). Petrazzini and Kibati (1999)

examined the Internet in developing countries and found that there is limited internet accessibility especially in rural areas. The penetration of the Internet is at its early stage in most of the developing countries. This limitation can be attributed to the lack of telecommunication infrastructure (Hawk, 2004; Kamel, & Hussein, 2002).

In addition to the Internet deployment in developing countries, there are further technical challenges include a lack of competition in international telephone tariff, Internet and bandwidth costs, the lack of technical support, longer server response time in websites, lack of timely and reliable systems for the delivery of physical goods (Travica, 2002; Kamel, & Hussein, 2002; Hawk, 2004; Ahmed, Zairi, &Alwabel, 2006).

2.8.2.2. Societal challenges

The societal challenges relate to all factors that affect consumers' attitudes, willingness, and decisions. The societal challenges are linked to many players such as the national culture, level of education, and political pressure. Some of the societal challenges include a lack of trust in merchants/products, a lack of awareness, a lack of training, resistance to change, language barriers, a lack of tradition of remote shopping/selling, and the reliance on face-to-face contact principle (Travica, 2002; Kamel, & Hussein, 2002; Ahmed, Zairi, &Alwabel, 2006; Shareef, et al., 2008).

2.8.2.3. Legal and standards challenges

E-commerce requires legal norms and standards such as covering contact enforcement, consumer protection, privacy protection, and intellectual property rights. In order to implement secure and trusted e-commerce environment, governments and businesses need to establish protection laws. Most of the previous studies indicate that a large number of the developing countries suffer from the lack of customers' protection laws (Shareef, et al., 2008; Travica, 2002; Simon, 2004; Kamel, & Hussein, 2002). Also, there is a lack of certificate authority that can offer legal advice, provide safety certification against the negative implications and

dangers of e-commerce, help raising public awareness in terms of the uses and benefits of e-commerce, and support building a trust in this new technology (Kamel, & Hussein, 2002).

2.8.2.4. Financial challenges

Financially, developing countries suffer from the lack of e-payment systems, non-existence of credit card community, low income, and issues of customs and taxation (Kamel, & Hussein, 2002; Travica, 2002; Ahmed, Zairi, & Alwabel, 2006; Hawk, 2004). In order to complete any transaction in e-commerce, the payment has to be carried out in one of the electronic methods (e.g. online banking, credit card, debit card, or electronic voucher from third party). These payment methods have not been fully implemented in most of the developing world. A vast number of the previous studies mentioned that the use of credit card is not common in the developing countries. Another crucial financial issue, that faces the adoption of e-commerce, is the low income of the citizens. This limitation affects citizens' ability to afford the Internet access cost, and more seriously this limitation may affect their ability to have computer to access the Internet.

2.9. Model of diffusion of e-commerce

The adoption of e-commerce, as mentioned above, faces significant numbers of challenges starting from technical challenges, to societal challenges, to legal and standards challenges, and to financial challenges. Technically, the lack of Internet penetration and Internet use is one of the main challenges (Petrazzini, &Kibati, 1999; Travica, 2002; Davis, 1999; Hawk, 2004; Kamel, & Hussein, 2002). Societal or cultural challenges include a lack of trust in merchants/products, a lack of awareness, a lack of training, resistance to change, language barriers, a lack of tradition of remote shopping/selling, and the reliance on face-to-face contact principle (Travica, 2002; Kamel, & Hussein, 2002; Ahmed, Zairi, &Alwabel, 2006; Shareef, et al., 2008). Legal and standards challenges flow around the need to

implement secure and trusted e-commerce environment as well as establishing protection laws. Most of the previous studies indicate that a large number of the developing countries suffer from the lack of customers' protection laws (Shareef, et al., 2008; Travica, 2002; Simon, 2004; Kamel, & Hussein, 2002). Financially, developing countries suffer from the lack of e-payment systems, non-existence of credit card community, low income, and issues of customs and taxation (Kamel, & Hussein, 2002; Travica, 2002; Ahmed, Zairi, &Alwabel, 2006; Hawk, 2004). Hence, in order to fully adopt e-commerce, developing countries need to overcome all these impediments. Moreover, the immediate need is to start addressing and solving the basic of these challenges which is the structural conditions and the infrastructure of e-commerce.

As a result of not being early adopters of e-commerce, developing countries have the advantages of avoiding others' mistakes in the process of adopting e-commerce. In order to draw a roadmap for implementing e-commerce, the e-commerce diffusion model was generated by Travica (2005) who built this model based on the generic trade cycle (Whiteley, 1999). The model of e-commerce diffusion (presented below) reflects conditions for developing e-commerce based on early e-commerce adopters such as the United States and west European countries (Travica, 2005). This model consists of six layers that are developed in accordance with economic, technological, and cultural conditions or aspects. These layers include, in sequence from the bottom to the top, *transportation* which refers to road, air, and railroads that need to be frequent transportation with less regular and temporal patterns. The second layer is the *delivery* infrastructure which builds on the first layers and needs to be reliable, efficient, and supportive of e-commerce changes such as expanding to global marketplace, reaching remote customers, and supporting significant fluctuation on geographical delivery patterns. The next layer is the *telecommunication* layer which discusses the need for pervasive, modern, secure, and affordable telecommunication channels that are the key to e-commerce. The next layer, *software industry*, refers to the capability of supporting standard e-

commerce application (e.g. e-payment) in terms of facilitating the implantation and maintenance of these applications. The next layer, *e-payment*, reflects the need of work and willingness from the three players (buyer, seller, and financial institution). Buyer needs to be willing to adopt remote payment; on the other hand, creditor organizations need to support the consumers' trust in the safety of the remote transaction. The last layer, *cultural layer*, relates to consumers' acceptance and attitude toward e-commerce which is affected by the tradition of remote shopping and the culture of trust in products and merchants. The reason for choosing the model of diffusion of e-commerce is discussed next as well as the specific layer to be investigated in this study.

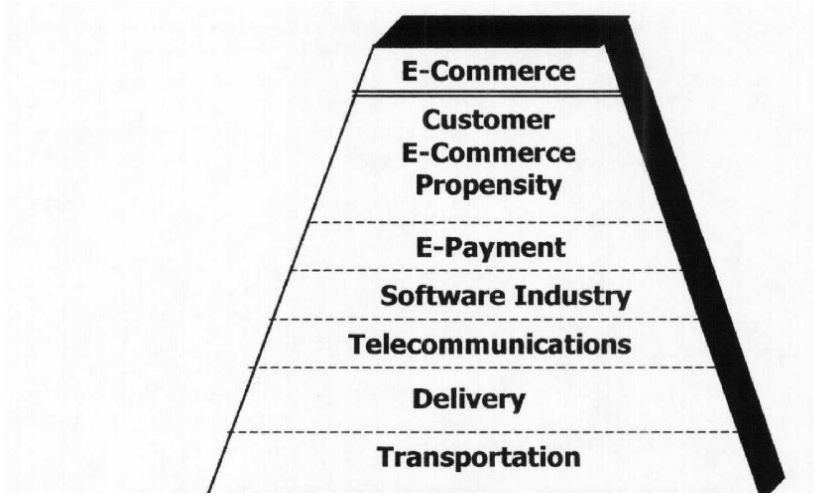

Figure 2-2, E-commerce diffusion model. Source: Travica, 2005

As mentioned earlier, the model of e-commerce diffusion reflects the conditions for developing e-commerce in countries that were early entrants. Thus, this model provides the key elements for adopting e-commerce, especially for developing countries. Moreover, this model gives practitioners and academics the capability to evaluate and investigate the process of adopting e-commerce from different aspects or layers of the model.

2.10. Requirements for a successful delivery system

In the world of e-commerce, order fulfillment refers to all activities needed to provide customers with their ordered goods and services, including all related customer services (Turban, et al., 2008). Order fulfillment includes not only the delivery of customers' orders, but also offering of all related services (for example, assembly and operation instructions, an arrangement of exchange or return of products etc). It is clear that the order fulfillment includes delivery of goods and services. According to Turban et al. (2008) "the key aspects of order fulfillment are delivery of materials or services at the right time, to the right place, and at the right cost" (p. 591). From this statement it is understood that there are three factors affecting any delivery process which are the right time (punctuality), the right place (accuracy), and the right cost (efficiency). Furthermore, Numberger and Rennhak (2005) mentioned different distribution service aspects, such as delivery speed, time, flexibility and reliability as important for broader long-term adoption of email orders for physical goods.

2.10.1. Time factor

For both players in online shopping (customer and retailer) delivering orders at the right time is seen as an essential factor in order to complete an online purchase. From consumers' perspective, the advantage of purchasing online is receiving an ordered product faster and more easily more than shopping in traditional stores. Consumers choose to purchase online because they want to save time and receive their order within an allocated time. The importance of on-time delivery has been mentioned by Yankelovich (2000; cited in Esper, et al., 2003 in 40), shows that 89 percent of online shoppers prioritize to on-time delivery and that consumers see accurate order and delivery information as an essential part of customer service (Baig, et al., 2011). Failing to do so, consumers may not see any advantages of purchasing online. Retailers are also concerned about delivering the ordered goods to their customers at the right time. In order to compete with other retailers, an

online retailer needs to have a punctual delivery system that provides the ordered goods faster or at least at the same time as other competitors do. In most cases, online retailers choose to deal with a delivery provider or a third party that will deliver the products to customers. The third party might be from the private or governmental sectors. In such cases, retailers and consumers need to consider the time factor involved in dealing with any delivery provider.

2.10.2. Place factor "accuracy"

Delivering ordered goods to the right place (place factor) has two dimensions: 1) products need to be delivered to the right person, and 2) the delivery service needs to cover a range location nationally and internationally. The place factor affects the choice of the delivery options as well as the choice of the delivery provider. When a consumer purchases a product online, he or she needs their goods to be delivered to their place or at least to be delivered to the nearest branch so as to pick them up. Consumers require a delivery system that reaches them regardless of their geographical disparity. In addition, retailers want to be able to deliver consumers' orders at any place locally and globally. Completing a purchase through an e-commerce website requires at least one delivery option that can reach customers at any place. Because of this, most of e-commerce websites offer one or more delivery options to give their customers the chance to choose the most suitable delivery option.

2.10.3. Cost factor "efficiency"

The cost of delivery refers to the amount of money added to the overall cost of a product in order to deliver a product to a consumer. This cost is added because consumers will not collect the product from its retailer, instead their orders will be delivered to them by one of the available delivery options. Generally, home delivery seems simple but difficulties arise when challenges of controlling costs (Baig, et al., 2011). For both players (consumers and retailers), the cost of delivery may affect the

process of online purchasing. In order to achieve consumer satisfaction, consumers need their orders to be delivered to them with the lowest delivery fee added to the cost of product (Baig, et al., 2011). Otherwise, consumers may choose not to complete the purchase if they feel the cost of delivery is too high to them. On the other hand, e-commerce websites strive to offer the cheapest delivery option for their customers in order to fulfill their desires and keep them shopping in the future.

The purpose of presenting the possible factors that might affect the delivery process is to assist this study in terms of finding which factors influence consumers' decisions in choosing a delivery method. Considering that delivery systems in developing countries are not as mature as its counterparts in the developed world, these factors might not be solid enough to reach consumers' expectations. Therefore, it is important to examine consumers' perspective on choosing a delivery option and how this affects their decisions.

2.11. Delivery systems in developing countries

The need for sufficient and reliable delivery systems is another challenge that faces the adoption of e-commerce. Assuming that the previous challenges of commerce deployment have been solved or overcome: if the Internet service is penetrated in most houses; if all players in e-commerce (consumers, businesses, and governments) are educated and trained to accept online shopping; if the privacy and security concerns are overcome and an environment of trust is built among the community of e-commerce; if the financial issue is solved and the credit card and other payment options are widely used; how can an e-commerce website deliver a single order to a customer? Usually, the issue of delivering an online order comes at the bottom of the list of the crucial issues in e-commerce adoption. Nonetheless, the necessity of possessing at least one method of delivering materials to customers is seen as one of the requirements of the success of the e-commerce sites. The poor delivery systems combined with the lack of credit card penetration are the most

cited problems of the deployment of B2C e-commerce in developing countries (Hawk, 2004).

In order for an e-commerce site to exist, the issue of delivery needs to be solved. An e-commerce site must provide at least one way to get the order to the customer. The western model of B2C exemplified by Amazon.com that has a few delivery options such as Priority Mail, Next Day or Second Day courier (Hawk, 2004). Failing to provide a reliable method of delivering the product leads to failing in the competition of being a successful e-commerce website. Therefore, the possibility of understating the situation of delivery systems in developing countries is achieved by reviewing the delivery method(s) in e-commerce sites in these regions. In the following paragraphs three cases of B2C E-commerce sites are presented with consideration to the delivery procedures and methods that are provided in these sites.

2.11.1. Delivery options in developing countries

As mentioned earlier, the most significant issues that are facing the deployment of e-commerce in developing countries are the poor delivery system and the lack of credit card penetration. In order to assess how sites in developing countries have responded to these challenges, Hawk (2004) investigates B2C e-commerce sites in three developing regions: 1) India, 2) Russia, and 3) Latin America (Brazil, Argentina, and Mexico). He examines the delivery and payment systems in 10 e-commerce sites from each region. Additionally, the author reviews some factors that might affect the diffusion of e-commerce in these regions such as the percentage of computer ownership, the number of Internet users, the number of credit card holders, and the income per capita. In the following paragraphs, a brief summary of each region is presented with the similarities and differences between these regions. Due to the focus of this study, which is on the delivery challenges, the discussion about credit card and payment difficulties has been excluded from summaries below.

2.11.1.1 Russian Case

In comparison with other developing countries (in central or Eastern Europe) Russia has some advances when it comes to e-commerce. Russia has higher Internet density than other countries in the region (Dembeck, 2000). Its population is highly educated with more emphasis on science more than technology and software professionals (Robb, 2000; Schweitzer, 2000). Similar to other developing countries, however, Internet usage in Russia is relatively low (Hawk, 2004). According to Krel (2000) 9.2 million Russians have used the Internet at least once in their life. Moreover, 1.8 million Russian were classified as regular internet users (at least one hour of access per week). With regard to e-commerce, Russian e-commerce revenue is fairly small; nevertheless, it is estimated to grow to 5.15 billion (Helque, 2000).

Hawk (2004) finds that only Russian e-commerce sites use the country's mail system compared with other countries in the study. Half of the websites in Russian use the Russian's Federal Postal System. Also, Russia has a higher use of private delivery than other countries where 7 out of the 10 sites operate their own delivery service. The majority of the private delivery option is offered only within Moscow region. Most of the Russian sites use courier services that provide deliveries between two and ten days. An Express courier, that offers a fast delivery to most of the cities within two to three days, is provided by a few Russian sites as a second option. In addition, Russian sites offer a pick-up option for consumers from the nearest office as an option to reduce the delivery cost. Overall, in comparison with other developing countries in the study, Russian sites offer a reasonable number of delivery options ranging from one to four options.

2.11.1.2 Indian Case

Among the three countries in Hawk's study, India seems in the least favorable position for the growth of e-commerce. According to Hawk (2004) India was home to only 5 million Internet users, which is about 0.5 percent of the population. With

regard to computer ownership, India has the lowest per capita computer ownership at less than 0.5 computers per 100 people (Cheung, 2001). However, one area that makes India a favorable environment of e-commerce is its strong software development industry. Last decade, India saw a rise in the offshore software development industry. India has the largest offshore development industry of any country with annual revenue of approximately $10 billion (Carmel, 1999).

In contrast to Russia, the most common method of delivery in Indian sites is the courier service. Nine out of ten sites use a courier service to deliver their orders. The delivery via the postal system is uncommon among the Indian sites. In fact, none of the ten sites use the mail service to deliver their products. The private delivery is seen in two of these sites which can reach most of Indian regions. In comparison with the other two regions, the delivery system is relatively weak, with only one or two delivery options available in most Indian e-commerce sites.

2.11.1.3. Latin American case

In his study, Hawk (2004) chose the most developed countries from the Latin American region: Brazil, Mexico, and Argentina. The reason for this choice was due to their high incomes per capita among other countries in Latin America. Moreover, these countries represent the largest populations of active Internet users where they account for more than sixty five percent of the region's active Internet users (Cohen, 2001). In addition, these three countries generated ninety three percent of the region's estimated $9.63 billion annual e-commerce revenue (Hawk, 2004). Instead of considering each of these countries separately, the author chose to review these countries as a unit because they have much in common. The economic and business environments of the three countries are relatively similar with regard to the factors that affect e-commerce. In comparison with Russia and India, the three Latin American countries seem more developed of the developing countries with higher per capita income and better telecommunications infrastructure (McConnell, 2000).

With regard to the delivery options in the e-commerce sites, the Latin American's sites are similar to the Indian's sites in terms of using the national mail service to deliver their products. Almost all of the ten e-commerce sites in Brazil, Mexico, and Argentina that were examined do not use the national mail service to deliver products to their consumers. In contrast, the courier service is the most popular method of delivery the products among the Latin American's sites. Also, two out of ten of the sites operate their own deliveries. Noticeably, one of these sites offers free shipment to one of the site's physical stores.

Overall, the delivery systems in the three regions in the study have some similarities and also some differences as well (see table 2-3 below). The major difference among these countries is the use of the mail or the postal service. From Hawk's study, it is obvious that only Russian's e-commerce sites use the mail service to delivery their products, whereas neither Indian's sites nor Latin American's sites offer this option. Another difference between the Russian sites and the two other countries is the operation of their own deliveries. Russian sites seem more likely to operate their own deliveries than the other two regions. One of the main similarities, however, is the popularity of the courier service. The courier service is widely used in all three regions. Almost all of the sites in Russian, India, and Latin America offer courier service, and in some cases, express or fast courier is also offered. Finally, Hawk (2004) finds that Russian e-commerce sites offer a greater number of delivery options more than those of India or Latin America.

Table 2-3, Summary of the delivery methods (Hawk, 2004)

Delivery Methods	Russia	India	Latin America
National Mail	5	0	0
Private courier	7	2	2
Courier	8	9	10
Other (pick up option)	1	0	1

Number of delivery options	2.1 average	1.1 average	1.3 average
Range of delivery options	1-4	1-2	1-3

2.12. ICT and E-Commerce in Saudi Arabia

2.12.1. Overview of Saudi Arabia

Saudi Arabia is one of the oil-based economies with strong government controls over major economic activities (CIA Factbook, 2011). Saudi Arabian economy faced minimal effects during the recent economic downturn due to its strong oil revenues during the past few years (Almousa, 2011). It is ranked as the largest exporter on petroleum which possesses about 20 percent of the world's proven petroleum reserve. Saudi Arabia is focusing on encouraging the private sector to participate in diversification of its economy and employ a large number of Saudi nationals. In order to reduce the unemployment rate, Saudi officials are aiming to employ its youth population which generally lacks the education and technical skills that private sector needs. In recent years, Saudi Arabia has increased spending on job training and education, which include, opening new universities for technology and science, and attracting foreign investment by joining WTO in 2005 (CIA Factbook, 2011).

The population of Saudi Arabia reached 26 million in July 2011 with a growth rate around 1.5 percent (CIA Factbook, 2011). Saudi Arabia has a youth population, with 50 percent under 20 years (Almousa, 2011). Also, the age between 15 and 64 years represents the largest percentage of the Saudi nation, at 67 percent. The average age of a professional worker is much younger in Saudi Arabia than in developed countries (Al-Gahtani, 2004). Moreover, the social and cultural characteristics of Saudi society are relatively unlike those in the developed world. The social and cultural characteristics of Arab and Muslim societies are different from those in Western cultures. One major difference is reflected in the overall demographics of

the workforce (Baker, Al-Gahtani, & Hubona, 2007). In the case of Saudi Arabia, women constitute a much smaller percentage of the Saudi workforce (Al-Gahtani, 2004). In addition, Saudis do not suffer from financial resources limitation compared with other developing countries (Almousa, 2011). Also, the enrolment rate of high school graduates and in higher education institutions is around 92 percent (during 2007), which is classified as one of the highest enrolment rates (Almousa, 2011).

Table 2-4, Overview of Saudi Arabia

Area	2,149,690 sq km
Population	26,131,703 (July 2011 est.)
Language	Arabic
GDP	$622 billion (2010 est.)
GDP Growth Rate	3.7% (2010 est.)
GDP/per capita	$24,200 (2010 est.)
GDP Composition	Agriculture: 2.6% Industry: 61.8% Services: 35.6% (2010 est.)
Exports, Biggest partners	Petroleum and petroleum products 90%. Japan 14.3%, China 13.1%, US 13%, South Korea 8.8%, India 8.3%, Singapore 4.5% (2010).
Unemployment Rate	10.8% (2010 est.)
Telephones and mobile cellular	51.564 million (2010)
Internet hosts	488,598 (2010)
Internet user	9.774 million (2009)

2.12.2. ICT and Internet penetration in Saudi Arabia

Like many other developing countries, Saudi Arabia is a relatively new follower in the utilization of information and communication technologies (ICT). In recent years, Saudi officials realized the importance of ICT in human development. Developments in ICT are essential for economical growth and for improvement of quality of life in modern societies. Therefore, the long-term ambition of the government of Saudi Arabia is to transform the nation into an information society and digital economy in order to increase productivity, provide communications and information technology

(IT) services for all sectors of the society in all parts of the country, and build a solid information industry that becomes a major source of income (MCIT, 2006). In 2002 the Council of Ministers approved the National Policy for Science and Technology. This plan sets the country's vision for bridging the technological gap between Saudi Arabia and the developed world by 2020 (MCIT, 2003). The plan has been developed to investigate the use of information technology for human development along the lines of international standards so as to enhance local capabilities to handle modern technologies. The plan contains ten strategic principles, where each principle consists of a number of mechanisms and programs for the implementation of the country's science and technology policy (MCIT, 2003). With regard to IT, the National Policy for Science and Technology stresses the need for immediate action in order to solve IT issues. These issues include, restructuring of the information sector, training of human resources in the field of informatics, development of the ICT infrastructure, development of IT industries, strengthening of the Arabic and Islamic content, and enhancing the realization of e-government (MCIT, 2003).

Internet service also started relatively late in Saudi Arabia compared with other developed countries. Internet service was launched in 1998 following Council Ministers' decision to provide the service under certain controls aimed at making the service available to citizens to benefits from the great potentials of the Internet (MCIT, 2003). The purpose of controlling the Internet is to protect the values and Islamic beliefs of the Saudi society by blocking access to inappropriate content.

Despite the late penetration of the Internet in Saudi Arabia, the number of Internet users has been increasing dramatically. The percentage of the Internet users in Saudi Arabia reached 41 percent of the population by the end of 2010, compared to only 13 percent in 2005 (AlGamdi, et al., 2011). The number of Internet users in Saudi Arabia has risen from only one million in 2001 to around 9.6 million in the beginning of 2009 with 35 percent annual growth rate (Alriyadh, Sep.2009; CIA fact book, 2011). According to the latest report from Communication and Information

Commission (CITC) the number of Internet users in Saudi Arabia has reached around 13 million users which represents almost 46 percent of the total population (CITC, 2011). Moreover, the Internet service penetration rate reached 26.8 percent in 2009 and 46 percent in 2011, which represent an increase of 3750 percent since the year 2000 (Miniwatts, 2010b). This sharp increase in the rate of Internet service penetration positions Saudi Arabia at the top of fast growth countries, where the service growth rate in Saudi Arabia is almost ten times the world's growth rate during the same period. Furthermore, with more than 13 million Internet users, Saudi Arabia represents the largest Internet user population in the Arab world (Simsim, 2011). Recently, Almousa (2011) found that the majority of total 281 participants have more than four years experience using the Internet, where 79.8 percent of male users and 67.4 percent of female users have more than four years experience in surfing the web. In addition, it was found that the majority of participants from different age groups, different level of education, different level of incomes, different occupations, and different marital status have been using the Internet for more than four years (Almousa, 2011).

Simsim (2010) discusses Internet service penetration in Saudi Arabia among different social categories. In his paper he studies users' preference on Internet access time, communication system used for the connection, and the technical attributes of the Internet connection of a total of 706 participants in the study. Simsim (2010) found that more than 80 percent of the participants are Internet users, while 15 percent does not use the Internet as a result of computer or Internet illiteracy. The high percentage of Internet users gives an indication of high level of technological knowledge and practices among individuals of the society in Saudi Arabia in general (Simsim, 2010). Furthermore, it is found that the high number of Internet users can be attributed to the relatively high level of education of the participants, where more than 85 percent of the participants have secondary school certificate or higher. With regard to the relationship between Internet usage and demographic and socio-economic factors, this study reveals that 86 percent of males

are using the Internet, while the corresponding percentage of Internet users among females is 79 percent. In addition, 92 percent of participants between 19 and 25 years are using the Internet, whereas only 69 percent of participants older than 45 years are using the Internet. Taking occupation into consideration, it was found that housewives represent the highest percentage of non-Internet users compared with other occupations, where more than 42 percent of housewives are not using the Internet.

With regard to the reasons of using the Internet, Simsim (2010) mentioned different purposes for using the Internet in Saudi Arabia, including scientific, cultural, commercial, email, chatting, and entertainment purposes. It was found that the predominant reason for using the Internet was to access the email, followed by scientific and cultural purposes. The purpose of using the Internet, however, differs from one age group to another, where younger participants use the Internet mostly for chatting and communicating with friends, whereas older participants use the Internet for cultural purposes. In addition to the role of age in influencing the purpose of using the Internet, Simsim (2010) mentioned the occupation of users as another factor in influencing the purpose of using the Internet. This study indicates high reliance among businessmen to use the Internet for commercial purposes more than other occupations such as students, government employees, private sector employees, policemen, retired, housewives, and non-employees. Also, e-commerce and similar activities are becoming an attractive alternative for business workers due to its simplicity and high efficiency regarding time and cost (Simsim, 2010). Moreover, it was found that more that 70 percent of Internet users in Saudi Arabia spend at least 4 hours daily surfing the Internet. On the other hand, more than 70 percent of those who use the Internet on a weekly basis spend at least 5 hours surfing the Internet.

2.12.3. E-Commerce in Saudi Arabia

In Saudi Arabia, the adoption of e-commerce is still at an early stage in the country's information technology revolution. Even though Saudi Arabia has the largest and fastest growth of ICT in the Middle East (Saudi Ministry of Commerce, 2001; Alfuraih, 2008), e-commerce growth is not developing at the same speed (Albadr, 2003; Aladwani, 2003; CITC, 2007; Agamdi, 2008 cited in AlGamdi, et al., 2011). Several studies have attempted to find the reasons behind the slow e-commerce growth in Saudi Arabia. It has been found that poor IT infrastructure, trust and privacy issues, cultural issues, and lack of clear regulations, legislation, rules and procedures, are the reasons for the weakness of e-commerce development (AlGamdi, et al., 2011).

The government of Saudi Arabia has been trying to follow the development of e-commerce in order to gain its advantages. In 1999 a standing committee of e-commerce was established to facilitate the adoption and deployment of e-commerce in Saudi Arabia (MCIT, 2003). This committee was established to achieve certain goals which include, 1) following up recent developments in the field of e-commerce, and taking necessary steps for keeping abreast with these developments, as well as benefiting from world expertise in this field; 2) identifying the requirements and needs for controlling e-commerce technology and applications for the benefits of the national economy, and create coordination among concerned agencies in taking practical steps for improving e-commerce; and 3) following up on the steps to be taken and preparing periodical progress reports (MCIT, 2003). Furthermore, the e-commerce committee identified the requirements for promoting e-commerce in Saudi Arabia. This committee came up with a plan of action that covers the following fields:

- Establishing the necessary Public Key Infrastructure (PKI), in order to provide safe and secure transactions, identity verification of dealers as well as the safety of interchanged messages; establishing a mechanism for issuing digital

certificates; and securing the requirements of the certifying agencies as to the safety of document and the technical specifications of the electronic signatures;

- Developing payment systems in order to undertake all banking transactions, and to execute electronic transactions swiftly and safely through electronic means;
- Developing communications infrastructure for supporting e-Commerce technologies, and securing data transfer services with the required rates and bandwidths, effectively and reliably all over Saudi Arabia;
- Establishing the legal and legislative framework necessary for applying electronic transactions and related contracts; securing honoring commitments; safeguarding dealers rights; and certifying electronic signatures;
- Identifying data safety requirements as well as the privacy of personal data;
- Proving public services electronically through the so-called “e-Government”;
- Establishing an electronic system for government procurement, including calling for bids and related procedures;
- Establishing a marketing website for national companies and factories, to enable them market and sell their products in and outside Saudi Arabia through the Internet;
- Promoting the proliferation of e-Commerce concepts and applications, and encouraging related investments;
- Providing related support services for e-Commerce applications, such as: improving the delivery of postal parcels, and identifying the addresses of government agencies, trading companies and individuals;
- Promoting awareness of e-Commerce, with all its benefits and possible positive results, and promoting confidence in the efficiency and safety of electronic transactions;
- Training national human resources for meeting the demand which is expected to increase with the spread of e-Commerce in Saudi Arabia; and

- Undertaking studies and research on ways and means of benefiting from e-Commerce technologies in Saudi Arabia.

Despite the relatively late adoption of e-commerce in Saudi Arabia, figures demonstrate a significant improvement in online shopping compared with other developing countries. E-commerce users (online shoppers) in Saudi Arabia are increasingly supported by the high percentage Internet and ICT adoption as mentioned earlier. In 2006, the Arab Advisory Group conducted an extensive survey focusing on Internet users in four Arab countries (Saudi Arabia, UAE, Kuwait, and Lebanon). This survey aimed to discover Internet usage and e-commerce activities in these countries. It was found that Saudi Arabia ranked first in the overall money spent on e-commerce activities, while UAE ranked first in the rate of annual spending on e-commerce per capita (AAG, 2008 in 50). Also, the study reveals that more than 14 percent of the population in Saudi Arabia use e-commerce activities, which positioned Saudi Arabia second among other three countries examined (AAG, 2008). Also, it was found that the e-commerce value in Saudi Arabia, Kuwait, UAE, and Lebanon exceeded US$ 4.87 billion in 2007, where the total number of E-commerce users in these four countries exceeded 5.1 million (AAG, 2007). Additionally, a recent study found that around 39 percent of the adult Internet users in Saudi Arabia purchase products and pay for services online through E-commerce services (AAG, 2011). The study reveals an estimation of the number of E-commerce users in Saudi Arabia to be around 3.1 million which is around 12 percent of the total population. Furthermore, it is estimated that e-commerce users in Saudi Arabia spent around US$3 billion on buying products and paying for services through E-commerce transaction in 2010 (AAG, 2011).

2.12.4. Profiling of E-commerce adopters in Saudi Arabia

The Saudi population is a predominantly young and computer savvy generation, and internet penetration is on the rise which creates higher demand for internet usage and maybe more online purchases. Due to the young age of e-commerce in Saudi

Arabia, hardly any study examined the demographic and socio-economic factors of online shoppers. There are some exceptions, however, that concentrate on the demographic variables and Internet usage of e-commerce adopter in Saudi Arabia. Recent studies demonstrate that younger Internet users tend to utilize e-commerce activities more than older ages. Arab Advisor Group (2011) indicates that around 39 percent of the adult Internet users in Saudi Arabia purchase products and pay for services online through e-commerce services more than other age groups. In addition, the study reveals that electronics are the most popular products bought online, followed by software. Furthermore, it was found that airline tickets booking and hotel reservations were the top services paid online among e-commerce users in Saudi Arabia (AAG, 2011).

A recent study that aimed to develop profiles of adopters and non-adopters of Internet shopping in Saudi Arabia was conducted by Almousa (2011). The study endeavors to examine consumers' attitude towards online shopping based on their demographic variables and Internet usage pattern. The study reveals that the majority of respondents have previous experience in Internet shopping. About 50 percent of males and 47 percent of females from the total of 281 respondents had experienced online shopping before. It was found that younger users appeared to be the most potential Internet buyers, where 62 percent of participants between 18 and 25 years had previously used the web as a shopping channel. With regard to the level of income, interesting figures revealed in the study, that is, users with low incomes (62%) and those who are financially dependent on others (61.7%), have previous online shopping experience more than other age group. According to Almousa (2011) none of the demographic characteristics (age, gender, level of income, marital status, and occupation) behave exactly as hypothesized except for education variable regarding difference in attitude towards e-commerce between different demographic groups. Similarly, differences in attitude between different internet using patterns did not behave as hypothesized except for previous experience on online purchase. Therefore, demographic variables and internet

usage patterns are of limited use to profile Saudi Arabian consumers in terms of attitude towards internet shopping (Almousa, 2011).

2.12.5. Online retailers in Saudi Arabia

Online retailing "e-tailing" is an Internet enabled version of a traditional retail system. It includes four sub-types: Virtual Merchants "online retail store only"; Bricks-and-Clicks retailers "online distribution channel for a company that also has physical store"; Catalog Merchants "online version of direct mail catalog"; and manufacturers selling directly over the web (AlGamdi, et al., 2011). Online retailing is classified under Business to customer (B2C) e-commerce. The US and the UK represent the world's largest market for online retailing, where online retail in USA account for 3.6 percent ($140 billion) of total retail sales in 2008 (U.S. Census Bureau, 2010 in 50), and in UK account for 10.7 percent (almost $74 billion) of UK retail trade in 2010 (Centre for Retail Research, 2010 cited in AlGamdi, et al., 2011). In Saudi Arabia the efforts towards e-commerce development have not reached its originally stated goals. Also, Firms in Saudi Arabia seem not to be following the developed countries' rapid progress towards global e-commerce. Nevertheless, retail market in Saudi Arabia is considered to be the largest in the Middle East. The forecast average annual private consumption growth in Saudi Arabia is 7.9 percent between 2011 and 2014 (AlGamdi, et al., 2011).

2.12.6. Delivery system in Saudi Arabia

In the world of e-commerce, the marketplace has been expanded and therefore necessitates more frequent delivery system that can reach consumers regardless of their disparities and geographical patterns. Since e-commerce can open up the global marketplace to consumers and attract even the most remote consumers to this marketplace, the need for reliable and efficient delivery system is essential, that is, capable to support significant fluctuations in geographical delivery patterns. The requirements for any successful delivery system are: 1) dependable post service; 2)

alternative delivery; 3) absolute addressing; 4) broader reach; and 5) increased volumes (Travica, 2002).

2.12.6.1. Saudi Post service

In most developed countries, the postal service is a taken-for-granted means of delivery. In Saudi Arabia, however, the postal service is relatively weak. Mail sorting has been done manually, so mail delivery can be a difficult and time-consuming job. Also, Saudi Arabia lacks an effective system for delivering mail to homes or businesses (ArcNews, 2011). In order to avoid the lateness of receiving mail, citizens and organizations tend to rent office boxes which gather all mails in one place and pick them up from the post office. Another delivery infrastructure condition in Saudi Arabia is the lack of building and street addresses (ArcNews, 2011). Until recent years, buildings in Saudi Arabia could not be referenced to by a precisely enumerated location. In systems terminology, this is called 'absolute addressing' (Travica, 2002). Due to the lack of the absolute addressing, a 'relative addressing' is widely used. That is, the location of a sought building is described in relation to a certain landmarks. The landmarks can be almost anything, e.g. supermarkets, petrol stations, monument, and traffic lights (Travica, 2002; AlGamdi, et al., 2011).

In recent years, however, post service in Saudi Arabia has improved to overcome most of the previous limitations. Saudi Post, the government-operated postal service for the Kingdom of Saudi Arabia, has established several services in order to solve the lack of building numbering. Saudi Post decided to align the postal services with global standers to create a mailing and residential address system for the entire country. Saudi Post built the Unified National Addressing System by using Geographical Information System (GIS) to create a postal code system to cover regions and cities of the Kingdom (Alfuraih, 2008; ArcNews, 2011; Postal Codes, 2011). The overall goal of this project is to build a method of guidance and ability to

arrive at any address in Saudi Arabia in the shortest possible time with minimum costs and the highest degree of technology and accuracy (Postal Codes, 2011; Saudi Post, 2011). In addition, GIS provides an information infrastructure that benefits other government agencies and contribute to the development of Saudi's e-government and e-commerce initiatives (Alfuraih, 2008; ArcNews, 2011).

Associated with this project, Saudi Post has introduced a new service to allow citizens and organizations to receive their mail directly at their addresses instead of picking them up from office boxes at the post office (Alfuraih, 2008; Saudi Post, 2011). The new service called "Wasel" that uses GIS to deliver all postal services to homes of citizens and residents. In order to use this service, citizens and organization need to register for this service, and then Saudi Post installs boxes at customer location. Furthermore, the Saudi Post offers to all "Wasel" subscribers the e-shopping service from international markets by providing them with a personal address to each of the available countries (US, UK, China, and Australia) (Saudi Post, 2011). The new service, called "Wasel Aalami", allows citizens to purchase online from these countries and the purchases would be delivered to the address provided according to the country; the orders will then be shipped directly to "Wasel" addresses in Saudi Arabia. The purpose of this service is to facilitate shopping from stores that require postal address in the country of origin; and to benefit from offers presented by some websites that deliver products free of charge inside the countries (Saudi Post, 2011).

2.12.6.2. Alternative delivery in Saudi Arabia

Alternative delivery refers to couriers that deliver parcels, documents and freight shipments to customers from door to door. FedEx, UPS, DHL, and others international shipment companies operate in Saudi Arabia. Also, there are some regional couriers that handle shipments in Saudi Arabia and other countries in the Middle East, such as "Aramex", which is one of the first Arab-based companies to deliver shipments internationally. Within Saudi Arabia, moreover, there are some

local shipment companies that offer relatively cheap delivery to any place in Saudi Arabia. AlGhamdi et al., (2011) found that the delivery process in some retail companies in Saudi Arabia is not considered as a professional delivery service. Due to lack of a clear home address, these delivery companies deliver products or orders to their offices only, and arrange with the customer to collect his/her order. With an extra fee customers can request products to be delivered to their home, by explaining the location (AlGhamdi, et al., 2011). Thus, the typical delivery process in Saudi Arabia requires the name and mobile number of a customer to arrange either pick up or home delivery with an extra fee. Although courier services like DHL, FedEx, UPS and other international carriers play an important role to deliver product in different geographic locations, the role of the national postal services is considered the most important in the delivery system in any country as they can be the cheapest and are also seen as a reliable method of delivering goods to consumers (Baig, et al., 2011).

Chapter Three: Research Gap and Questions

This chapter presents the gap that is found in the literature which is an important area to be examined. Firstly, the issue of delivery in e-commerce world is discussed in order to put more emphasis on its significant role in the adoption of e-commerce, especially for the developing nations. Thirdly, the reasons behind the using Saudi Arabia, as the focus of this study, are presented. Finally, the discussion is concentrating on the gap that is found in the literature and the research questions that the study endeavors to answer.

3.1. The issue of delivery in e-commerce

Usually, the issue of delivering an online order comes at the bottom of the list of the crucial issues in e-commerce adoption. Nonetheless, the necessity of possessing at least one method of delivering materials to customers is seen as one of the requirements of the success of the e-commerce sites. Poor delivery systems combined with a lack of credit card penetration are the most cited problems of the deployment of B2C e-commerce in developing countries (Anigan, 1999; Bingi et al., 2000; Cheung, 2001;; Palumbo & Herbig, 1998; and Hawk, 2004). Despite the importance of delivery aspects especially for developing countries, a high percentage of the previous studies focus on the top half of the model, ignoring the bottom half. Most of the studies about the implementation of e-commerce in developing countries discuss issues related to consumers' acceptance, consumers' behavior, e-payment, and telecommunication. For new adopters of e-commerce, such as developing countries, the need for evaluating the delivery system in these regions is crucial. However, fewer studies concentrate on the delivery system in developing countries. Table 3-5 presents some examples of the previous studies that focus on the top half of the model instead of the delivery and transportation layers.

Table 3-5, Previous studies on e-commerce in developing countries.

Title and author(s)	Focus	Layer of the model
Role of different EC quality factors on purchase decision: a developing country perspective. (Shareef, Kumar, & Kumar, 2008)	It examines the perceived quality factors required for consumer purchase decisions in EC such as security, privacy, trust, and site security.	Customer e-commerce propensity (cultural layer).
A comparison of American and Indian consumer perceptions of EC. (Slyke, Belanger, and Sridhar, 2005)	It investigates the roles of local conditions and national cultures in affecting consumers' perceptions of EC.	Customer e-commerce propensity (cultural layer).
A comparison of B2C EC in developing countries. (Hawk, 2004)	It examines the challenges of conducting B2C EC in developing countries (payment and delivery systems) in three developing countries: Russia, India, and Latin American countries.	E-payment layer Telecommunication layer Delivery layer
The emergence of EC in a developing nation: Case of Egypt. (Kamel, & Hussein, 2002)	It describes the emergence of EC in Egypt, mainly focusing on the challenges that relate to social, technological, financial, and legal issues.	Cultural layer E-payment layer Software industry layer Telecommunication layer
The Internet in developing countries. (Petrazzini, & Kibati, 1999)	A comparison between developed and developing countries in terms of Internet hosts, users, and disparity.	Telecommunication layer

Global benchmarking for internet and EC applications. (Ahmed, Zairi, & Alwabel, 2006)	It examines issues related to the development of the Internet and EC in Saudi Arabia.	Cultural layer Software industry layer Telecommunication layer

Following the discussion above, the focus of this study is intended to be on the delivery aspect of e-commerce. The choice of the delivery layer is due to several reasons: 1) developing countries are seen as new entrants into the world of e-commerce; 2) a delivery system associated with a payment system are seen as major challenges for most developing countries; 3) having a solid delivery service is crucial for successful e-commerce adoption; and 4) there are a lack of studies that focus on delivery systems in the developing world. Therefore, the delivery service of e-commerce sites will be examined in order to find out how consumers react to the delivery process.

3.2. Choosing Saudi Arabia as the focus of this study

In Saudi Arabia, the adoption of e-commerce is still at in the early stages of the country's information technology revolution. Even though Saudi Arabia has the largest and fastest growth of ICT in the Middle East (Saudi Ministry of Commerce, 2001; Alfuraih, 2008), e-commerce growth is not developing at the same speed (AAlbadr, 2003; Aladwani, 2003; CITC, 2007; Agamdi, 2008). Several studies have attempted to find out the reasons behind the slow of e-commerce growth in Saudi Arabia. It has been found that poor IT infrastructure, trust and privacy issues, cultural issuers, and the lack of clear regulations, legislation, rules and procedures are the reasons for the weak e-commerce development in Saudi Arabia (Albadr, 2003; Aladwani, 2003; Alfuraih, 2008; Alrawi & Sabry, 2009; Alghaith et al., 2010). As a result of being slightly different from other developing countries, these facts give Saudi Arabia the chance to be studied in order to find the distinctions of this region.

3.3. Gap in literature

From the discussion above, it can be found that Saudi Arabia, like many other developing countries, faces some challenges in the implementation of e-commerce. Because they are not an early adopter of e-commerce, developing countries are required to create a strong foundation for successful e-commerce implementation. As suggested in the Model of Diffusion of E-Commerce, the priority of establishing a sold transportation and delivery system is higher than other requirements such as ICT and e-payment systems, and culture of online shopping. Thus, the need for creating a sold delivery system is essential and crucial more than other requirements. From this point of view, therefore, we found that studying the delivery system in e-commerce in such an early adopter of e-commerce like Saudi Arabia is needed in order to assist the development of e-commerce in this country as well as filling the gap in the literature.

With regard to the requirements for successful delivery system "at the tight time, at the right cost, and to the right place", this study aims to find out the impact of these factors in the process of choosing a delivery option. This piece of research endeavors to examine the effect of these factors on consumers' decisions regarding the selection of a delivery option. Also, this study plans to find out which of these factors affect consumers' decision more than other factors.

Products and commodities offered online vary widely. These products can be cheap or expensive, small or big, digitized or physical goods, one shape or different shapes, can be specified or not. Some types of products can be sold easily through e-commerce sites, while other types of products face some difficulties to be sold online. According to Peffers (2001) not all of the seven types of products, that are examine in his study, are suitable to be sold through e-commerce channel. Due to the relatively datedness of Peffers's study, which is almost ten years old, we intend to study these types of products and find out to what extent our findings are

different from those of Peffers'. Due to the focus of this study, which is on the delivery of physical products, we excluded those types of products that do not have physical content (e.g. digitized products, reservations, services, and software etc.). As a result, five types of products are examined in this study that have physical content and require a physical delivery. In addition, this study aims to find if there any role(s) of these types of products in the process of choosing a delivery option. That is, it is proposed to find out if consumers' decisions change of the type of product changed or not. Also, the study tries to investigate the role of these types of commodities on the delivery factors "time, cost, and place". That is, the purpose is to find out if the roles of the delivery factors will be different from one type of product to another.

Saudi Arabia, like many other developing countries, suffers from the lack of sufficient number of studies that evaluate the process of e-commerce implementation. However, this region of the world has some advantages more than other developing countries which include the strength of its economy, the youth of its population, and the high level of education. From these reasons, Saudi Arabia is distinct among other developing countries, which gives it the chance to present relatively unique and significant results. There are several studies have discussed the adoption e-commerce in Saudi Arabia. However, hardly any study has focused on consumers' perspectives with regard to choosing a delivery option in e-commerce sites. The selecting of a delivery method for online shopping might be determined based on different factors as mentioned earlier. Therefore, the study aims examine to what extend these factors affect consumers' decisions in choosing a delivery method. Moreover, the focus is on finding any correlations between the social characteristics (age, gender, level of education, and level of income) and the factors of good delivery system (time, place or reach, and cost). With regard to types of products offered online, the study endeavors to find any effect of the social and demographic factors in the preferred type of products that are sold in e-commerce sites.

3.4. Research questions

The overall goal of this piece of research is to answer its ultimate questions. The core areas in the study are: 1) delivery system in e-commerce sites; 2) types of products offered online; and 3) in an early adopter of e-commerce "Saudi Arabia as a developing country. Because the focus of the study is on these three areas, the overall research questions are expected to cover these core areas.

First of all, the study aims to find out the effect of the delivery factors on consumers' decision in choosing a delivery option. As mentioned earlier, delivery in e-commerce is required to deliver products to customer at the right *cost*, at the right *place*, and at the tight *time*. Thus, the study tries to examine the role of these factors on consumers' decisions.

Q1.A. To what extent the cost of delivery affect consumers' decisions in choosing a delivery option in e-commerce sites?

Q1.B. To what extent the ability of the delivery provider to ship to consumers anywhere affect consumers' decisions in choosing a delivery option?

Q1.C. To what extent the time of delivery affect consumers' decision in choosing a delivery option?

Secondly, the study aims to examine the role of types of products on consumers' decisions and if the selecting of a delivery option will be affected based on the type of the product. Also, the study tries to find any relationships between the delivery factors "time, cost, and reach" and the type of product i.e. does the role of these factors change if the types of product change.

Q2.A. To what extent the effects of cost of delivery change when the types of product change?

Q2.B. To what extent the effects of time of delivery change when the types of product change?

Q2.C. To what extent the effects of the ability of the delivery provider to reach any place change when the types of product change?

In addition to these major two areas, the study aims to draw a profile of e-commerce users in Saudi Arabia. Demographic and social characteristics are not only employed to find their roles in choosing a delivery option, but also to produce rich information about the characteristics of online shoppers in Saudi Arabia. Due to the lack of information about e-commerce users in Saudi Arabia in the literature, we realized that it is essential to present up-to-date details about online shoppers profiling.

Chapter Four: Methodology

4.1. Introduction

This section discusses the research methodology which will be followed in this study in order to gather the required information that will assess in answering the research questions. This section details the research philosophy, research approach, data collection techniques, research design, and sampling procedures. Data analysis techniques and ethics issues are discussed at the end of this section.

4.2. Research Philosophy

In Information System (IS) field, there are three schools of thought (paradigms). These paradigms are adopted to conduct empirical research in the interest of Information Systems (IS). The paradigms are: the positivism school, the interpretivism school and the critical social school (Orlikowski & Baroudi, 1991; Oates, 2006; Deetz, 1996). Oates (2006) defines paradigm as a set of shared assumption or ways of thinking about how to conduct research and gain knowledge.

In the first school of thoughts, the positivist paradigm, researchers aims to achieve objectivity and to ascertain realities that can be simulated by other academics (Myers, 1997; Walsham, 1995). In this paradigm, the expectation is that there is an objective truth existing in the world. In order to accomplish this expectation, researchers use scientific approaches where the focus is on examining relationships between variables analytically and statistically (Deetz, 1996).

In the second school of the thoughts, the interpretivism paradigm, researchers focus on recognizing phenomena by gaining access to the meanings that participants assign to them (Orlikowski and Baroudi, 1991). Ontologically, the interpretivist researchers view the actuality as a social concept which is created by people in relation to each other (Guba & Lincoln, 1994; Oates, 2006). Epistemologically,

however, interpretivists believe that research methodologies must not depend only on gathering of data and facts, but rather giving more attention to the complication of human actions as well as explaining the meanings and manners of the observed human performers (Burrel & Morgan, 1979; Myers, 1997).

Thirdly, in contrast to the positivism and interpretivism paradigms, the critical (postmodernity) school believes that reality is founded and explained through a discourse (Orlikowski & Baroudi, 1991). Ontologically, this school argues that reality is historically established and includes different forms of social, cultural, political, ethnic, and gender control. The epistemological perspective is that the investigator and the examined object are interchangeably linked. Accordingly, knowledge of the social world is valuable (Gube & Lincoln, 1994). Thus, the role of the researchers in this school is to uncover and criticize unfairness and unbalanced settings in society from which individuals need freedom (Oates, 2006).

4.2.1. Chosen Research Philosophy

Choosing an appropriate research philosophy to follow in this research is a crucial step to be taken seriously. There are many research philosophies in the field of information systems as mentioned above. However, one philosophy can be adopted in this study. This study looks at the factors that affect the choosing of delivery options by consumers in e-commerce sites in Saudi Arabia. The aim of this study is to examine the relationships between variables in a systematic manner. Thus, the study methodology that is followed through this study can be described as being generally positivist.

4.3. Theoretical framework

Research is a practical activity which is defined by Saunders, Levis, and Thornhill, 2009) as something that researchers carry out in order to find out things in a systematic way, which will lead to increasing knowledge. According to Saunders et

al., (2009) presenting knowledge and creating new insights are the two fundamental purposes of research. From a business point of view, research is a systematic and objective process of gathering, recording, and analyzing data in order to enhance decision making as well as a management tool that companies use to reduce uncertainty (Coldwell & Herbst, 2004). This study is, therefore, aimed to find an insight related to the role of the delivery system in Saudi Arabia, and how that affects the adoption of e-commerce. This study focuses on the business value along with the academic value which will assist researchers to extend study of in this field, and also assist businesses and companies to use the outcomes in terms of improving their operation.

For the purpose of this research, it is required to have a critical review of the literature. A literature review provides a foundation that can help a researcher to build a good understanding of the topic and its related issues. Blumberg, Cooper, and Schindler, 2005) recommend the following aims and objectives to be taken into account as guidance:

- A context of the problem relating to e-commerce is highlighted by reference to previous work on the similar field.
- Literature is analyzed to understand the structure of the problem.
- Relevant variables, e.g. cost of delivery, time of delivery, trust on delivery, type of product, and level of income etc, and their relation have been identified.
- It is aimed to show the reader what has been mentioned about the problem previously.
- It is intended to gain a new perspective about the problems on e-commerce and its delivery system.

In addition, literature review provides us with the choice of an appropriate research approach, i.e. whether to use a deductive or inductive reasoning, or to apply qualitative or quantitative research methods in order to gain knowledge of the problem of delivery service in e-commerce.

4.4. Research Approach

4.4.1. Inductive versus Deductive Research

The research study is based on hypothesis generation and on testing through empirical observations. A similar approach is the deductive research method where theories will be applied in the real world for the purpose of testing and assessing their validity (Lancaster, 2005). Deductive reasoning works flow from the more general to the more specific. Consequently, conclusions follow logically from premises i.e. available facts; therefore it is sometimes informally called a top-down approach.

On the other hand, the inductive approach reverses the process that is used in the deductive approach. In this type of work, researchers develop hypothesis and theories with a view to explaining empirical observation found in the real world (Lancaster, 2005). Therefore, the inductive reasoning works the other way, i.e. flowing from specific observation to broader generalizations and theories. Moreover, conclusion is likely based on premises, and it is informally called bottom-up approach.

From bringing together the ideas of other authors in the area of e-commerce and delivery system and then testing these hypotheses through the empirical observation to validate the findings from the literature, this research study is based on inductive research approach.

4.4.2. Qualitative versus Quantitative

This research is based on both qualitative and quantitative methods. Qualitative research has been used in reviewing the literature in order to build a deep understanding of the research problem, whereas quantitative approach has been used to conduct the empirical study based on the outcomes of the qualitative research. Various factors influencing e-commerce adoption, that have been identified through the qualitative research, will be proved or disproved through the statistical analysis after conducting quantitative research. Coldwell and Herbst (2004) distinguished between quantitative and qualitative data based on the nature of the data. They consider data as qualitative if it cannot be analyzed by means of mathematical techniques. On the other hand, quantitative research generally involves the collecting of primary data from a large number of individual units with the intention of projecting results.

Coldwell and Herbst (2004) described the difference between quantitative and qualitative research by the overall objects of these two types. Quantitative research is utilized to determine *what* is happening, whereas qualitative research is utilized to determine *why* is happening. Malhotra (2004) described the difference between quantitative and qualitative research on the basis of objectives, sample, data collection and analysis, and outcome basis as mentioned in table 4-6.

Table 4-6, Qualitative vs. quantitative adopted from Malhotra (2004)

Qualitative Vs Quantitative Research		
	Qualitative	Quantitative
Objective	To gain the qualitative understanding of the underlying reasons and motivation	To quantify the data and generalize the results from the sample to the population of interest
Sample	Small number of non representative cases	Large number of representative cases
Data collection	unstructured	Structured
Data analysis	Non statistical	Statistical
Outcome	Developed and initial understanding	Recommended a final course of action.

4.5. Survey and data collection techniques

4.5.1. Secondary data

Secondary data is defined as data and information which is collected by other researcher(s) and is available in published sources. In order to understand and formulate the research problem, the secondary data collection is mainly from the electronic sources in the form of online journals and articles that are available on university library website and other online sources. In addition, the secondary data collection facilitated the choosing of suitable method to handle particular problems. However, secondary data collection faced some difficulties such as the issues of accuracy and datedness as well as the difficulty of classification of data based on consistency in relation to particular research problems.

4.5.2. Primary data

The data relevant to the research problems which is collected by the researcher is called primary data. There are several ways of collecting primary data which includes observation, survey (questionnaire) and interviews. Survey and questionnaire are the most popular data collection method in business studies. In terms of the purpose of the study, survey research is classified into three types: exploration, description, and explanation purposes (Pinsonneault & Kraemer, 1993). Exploratory survey aims to become more familiar with a topic and to examine preliminary concepts. This type of surveys is used to discover the range of responses likely to occur in some population of interest. Second type, descriptive survey, aims to find out what situations, events, attitudes, or opinions are occurring in a population. The concern of the researcher in a descriptive survey is to describe a distribution or to make comparisons between distributions. The overall purpose of the descriptive survey is to ascertain facts (not to test theory). The purpose of the third type of survey, explanatory survey, is to test theory and causal relations. Explanatory survey asks about relationships between variables. In explanatory research, questions may

extend not only to establishing the existence of a causal relationship but also to asking why a relationship exists (Pinsonneault & Kraemer, 1993).

With regard to the data collection technique or method, an electronic questionnaire is developed through Fluidsurveys.com to be sent to e-commerce users via emails. Due to the difficulty of approaching e-commerce users in a country such as Saudi Arabia, that adopted e-commerce relatively recently, sending emails to those potential participants is the most appropriate technique for collecting data. Shopping online is still unpopular in Saudi Arabia, thus, distributing the questionnaire to normal people on the street seems worthless. Adopting an electronic questionnaire, that is sent to e-commerce users via emails, offers obvious benefits in terms of approaching the potential sample.

4.6. Research design

A research design is the strategy for answering the questions or testing the hypotheses that motivated the research at the first stage (Pinsonneault & Kraemer, 1993). Survey designs can be classified as cross-sectional or longitudinal. Cross-sectional design is used when the researcher aims to describe a population (or a document) and examine differences in a subset of the population at one point in time. In contrast, the longitudinal design is used when the research aims to examine a dynamic process that involves change over time and attempts to understand the sources and consequences of a phenomenon. The typical longitudinal design collects data for at least two points in time (Pinsonneault & Kraemer, 1993). Another critical issue in research design is choosing the unit(s) of analysis. Unit(s) of analysis can be an individual, group, department, or organization. Also, it may be an application, a system, or an application portfolio; or it may be a development project, or it could be any aspect of a development project (Pinsonneault & Kraemer, 1993).

In accordance with the focus of this study which is to describe a population at one point in time, the cross-sectional design is the most appropriate for this study. In addition, cross-sectional design is more appropriate than longitudinal design for descriptive studies whose aim is not to examine causal relationships. With regard to the unit(s) of analysis, in this study the unit of analysis is individual or end user of e-commerce who has experienced shopping online and who has dealt with the delivery system. Further discussion about the research sample is in the following paragraphs.

4.7. Sampling procedures

Sampling is concerned with selecting individuals or entities from a population in a manner to guarantee generalization about the phenomenon of interest from the sample of the population (Pinsonneault & Kraemer, 1993). The most important element of the sampling procedure is the choice of the sample frame that makes up a representative subset of the population from which the sample is drawing. The sample frame, therefore, must adequately represent the unit of analysis. Moreover, the sampling is concerned with representativeness in selection of individual respondents from the sample frame. This requires random selection or representatives which will lead to giving each potential respondent an equal chance of being included in the sample.

In this study, the unit of analysis is the e-commerce users who have experienced shopping online. Also, the sample frame is the list of people who have dealt with e-commerce sites and have tried one of their delivery services. Due to the youth age of e-commerce in Saudi Arabia, mailing lists of e-commerce sites are the potential method of approaching the selected sample. Therefore, e-commerce sites were approached in order to use their mailing lists to reach those proposed respondents. Two of these sites have responded to participate in this study “Souq.com and e-mall.com.sa”. Additionally, using mailing lists of e-commerce sites will reduce the

risk of involving participants from outside the sample frame who are unfamiliar with e-commerce process or services. Thus, approaching participants via e-commerce sites may ensure reaching the suitable participants who are familiar with e-commerce and have shopped online at least once.

4.8. Data Analysis Techniques

In order to analyze the collected data, SPSS was used. The survey questions were coded into the data sheet by assigning an answer a numeric value. After defining the variables and options, the answers were entered into the data sheet to be tested. After coding the questionnaire, a reliability test was conducted on all the answers in order to check the reliability of the data. The independent samples t-test was apply to examine the difference between variables. The independent samples t-test examines the difference between the means' of two variables within the same sample. When the result below the significant level of a=0.05, the two variables are considered as different. Thus, a relationship between those two variables can be inferred.

4.9. Ethical issues in research

Research ethics is defined by Blumberg, et al., (2005) as the research of the right behavior and addresses the concern of how to conduct research in a moral and responsible manner. This study has been conducted in an ethically responsible manner taking into consideration all of the ethics principles. Some of the ethics principles are mentioned by Bryman and Bell (2007) as guidance for researchers to be followed:

- There should be no harm to the participants.
- There should be no lack of informed consent.
- There is no invasion of privacy.

- There is no deception involved.

4.10. Summary

The methodology section discussed how this research work is conducted. The various schools of thoughts are discussed and the most appropriate methodology and paradigm for this study are identified. Also, the most appropriate research design, sampling procedures, and data collection techniques are detailed in this chapter.

Chapter Five: Findings

5.1. Introduction

Previous chapter has provided with the basic tools to be used in the empirical research. This chapter aims at presenting the data in the form of tables describing frequencies, correlations, and significant differences. Firstly, the demographical and social statistics are presented. Secondly, participants' experiences in online shopping with different types of products are revealed afterwards. Thirdly, the hypotheses developed in the literature review have been tested in this chapter in order to answer the broader research questions.

5.2. Participant profile

A total of 600 questionnaires were distributed and 140 responses were received. However, 101 usable surveys were used in this study. Seventy seven of the participants are males, and 24 female. The age of participants ranges from under 21 years to 40 years. The dominant age group is 26-30 years which represents more than 42% of the participants. Also, participants with age 25 or under represent approximately 36% from the sample. The last age group, those aged 31 years or above, represents only 20.8% of the total participants. With regard to the marital status of the participants, it is noted that almost two-thirds of the respondents are single, while less than 34% are married. Being single can be attributed to the youth of the participants where the majority is under the age of 30 (Table 5-7). The participants in the study are highly educated, that is, almost all of the respondents have completed either high school or higher degrees. In addition, a large number of participants hold bachelor or master degrees, which represent 62.4% and 20.8% respectively (Table 5-8).

Table 5- 7, Age groups of participants

Variables	Characteristics	Frequency	Percent
Age	21 or under	17	16.8
	21 – 25	20	19.8
	26 – 30	43	42.6
	31 – 35	19	18.8
	36 – 40	2	2
	Total	101	100
Gender	Male	77	76.2
	Female	24	23.8
	Total	101	100
Marital Status	Single	66	65.3
	Married	35	34.7
	total	101	100

Table 5-8, Level of education of participants

Variables	Characteristics	Frequency	Percent
Level of education	Intermediate	1	1
	High school	16	15.8
	Bachelor	63	62.4
	Master	21	20.8
	Total	101	100

In terms of participants' occupations, around 40% of participants are employed either in government or private sectors. On the other hand, almost half of the respondents are students. The rest of participants are self-employed or unemployed, which represent 3% and 7.9% respectively (Table 5-9). With regard to the level of income, only 18 participants do not have monthly income, while other respondents have income. Participants who earn 1000 Saudi Riyals or less per month (SR1000 = US$375) represent almost 11%. Those who earn between 1000 and 3000 SR represent only 8.9%, and those who earn between 3001 to 6000 SR represent almost 14% of total participants. However, respondents who earn between 6001- 9000 and those who earn more than 9000 SR represent the highest two groups, with 20.7% and 27.7% respectively (Table 5-10). The high income of

almost half of participants can be attributed to their occupations, where around 40% of the participants have job either in public or private sectors.

Table 5-9, Occupation of participants

Variables	Characteristics	Frequency	Percent
Occupation	Student	50	49.5
	Employed in government sector	20	19.8
	Employed in private sector	20	19.8
	Self employed	3	3
	Unemployed	8	7.9
	Total	101	100

Table 5-10, Participants' income per month

Variables	Characteristics	Frequency	Percent
Level of income	No income	18	17.8
	Less 1000	11	10.9
	1000 – 3000	9	8.9
	3001 – 6000	14	13.9
	6001 – 9000	21	20.8
	More than 9000	28	27.7
	Total	101	100

5.3. Computer skills and Internet experience

The majority of respondents indicated that they have relatively strong computer skills. While only 11.9% of participants reported that they have moderate skills in using computer, almost 90% of participants mentioned that they have either good or very good computer skills. With regard to Internet usage, participants vary in terms of using the Internet on daily basis. More than 25% of participants use the Internet for between 1 and 2 hours a day, whereas almost 35% of participants surf the Internet for 3 to 4 hours. Moreover, almost 40% of respondents spend more

than 5 hours on the Internet each day. In terms of the location of accessing the Internet, the main place the home (80.2%) followed by the office (12%), while other places, which include school and Internet café, were mentioned only by 8% of participants (see table 5-11).

Table 5-11, Computer and Internet experience

Variables	Characteristics	Frequency	Percent
Computer skills	Very good	53	52.5
	Good	36	35.6
	Moderate	12	11.9
	Total	101	100
Average hours of using the Internet	1 – 2	26	25.7
	3 – 4	35	34.7
	5 – 6	11	10.9
	More than 6	29	28.7
	Total	101	100
Places of accessing the Internet	Home	81	80.2
	school	4	4
	Office	12	11.9
	Other	4	4
	Total	101	100

The purposes of using the Internet vary among participants ranging from reading and gathering information; purchasing and learning; socializing and communicating; and playing games and job-hunting. E-mail (78.2%) and social networking (72.3%) are the two most popular purposes of using the Internet, as mentioned by most of participants. Gathering information and reading news are ranked second among the most popular uses which represent 67.3% and 60.4%, respectively. Purchasing products and services, however, mentioned by almost half of the respondents which can be a sign of the popularity of online shopping among the participants. Other purposes of using the Internet were mentioned by most of the participants, such as academic research 47.5%, job-hunting 16.8, games 13.9%, and other reasons 6.9% (e.g. chatting, finding maps and locations, and personal business) (see table 5-12).

Table 5-12, Purposes of uses of the Internet

Variables	Characteristics	Frequency	Percent
Purposes of using the Internet	Information gathering	68	67.3
	Academic research	48	47.5
	Games	14	13.9
	Reading news	61	60.4
	E-mail	79	78.2
	Job-hunting	17	16.8
	Purchasing products or services	46	45.5
	Social networking	73	72.3
	Other	7	6.9

5.4. Online shopping experience

Participants were asked about their online shopping experiences which include the beginning of shopping online, the number of e-commerce sites used, and the number of purchases in the last 12 months (see table 5-13 below). Firstly, most of the participants have experienced shopping online, whereas only 13.9% of the respondents never purchased through the Internet. Secondly, almost 19% of the participants nominate themselves as new entrants to e-commerce world who started shopping online within the last six months. However, a large proportion of respondents (54.4%), who began purchasing online since six months ago and more, have moderate online shopping experience. In addition, almost 13% of respondents were relatively early adopters of online shopping who started using e-commerce sites more than three years ago.

With regard to the number of sites that have been used by respondents to purchase products, most participants have visited at least one e-commerce to buy products. Majority of participants (46.5%) used 1 or 2 sites in their previous online shopping, while more than 30% of them have dealt with 3 or 4 websites to purchase products.

Furthermore, 8.9% of respondents have experienced shopping from 5 or more e-commerce sites.

In order to examine how participants are active in purchasing from e-commerce site, they were asked about the number of purchases during the last 12 months. While 16.8% of participants did not shop in the last 12 months, it was found that more than 80% of respondents purchased from online in the same period. More than 50% of participants said that they made between 1 and 5 purchases during the last 12 months. Moreover, almost 14% of respondents are relatively active in purchasing from e-commerce sites; they bought between 6 and 10 times within this year. Interestingly, a noticeable number of participants mentioned that they purchased more than 10 times during last 12 months, which represents almost 17% of total participants (See table 5-13).

Table 5-13, Online shopping experience

Variables	Characteristics	Frequency	Percent
Start shopping online	Never purchased before	14	13.9
	Within last six months	19	18.8
	More than six months but less than a year	29	28.7
	More than a year, but less than three years	26	25.7
	more than three years	13	12.9
	Total	101	100
Number of e-commerce sites used to purchase products	none	14	13.9
	1 - 2	47	46.5
	3 - 4	31	30.7
	5 or more	9	8.9
	Total	101	100
Number of purchases in the last 12 months	Never	17	16.8
	1 - 5	53	52.5
	6 - 10	14	13.9
	More than 10	17	16.8
	Total	101	100

Taking into consideration the products that are offered online, the popularity of these products vary slightly among participants. As can be seen in the table below, the most popular use of e-commerce sites is “travel and reservation” which was mentioned by more than 60% of participants. Following that, there were a variety of products that can be ranked second among ‘preferred products’ which include “computer and its accessories 51.5%”, “watches and perfumes 48.5%”, “books and magazines 42.6%”, and “software 41.6%”. However, fast food and flowers that are offered online were at the bottom of the list of preferred products. Other products that were mentioned by participants are listed in table 5-14 below, including the “other” option where participants added other products such as cars, real-estate, and cosmetic products.

Table 5-14, Preferred products offered online

Variables	Characteristics	Frequency	Percent
Preferred products offered online	Computer and its accessories	52	51.5
	Software	42	41.6
	CDs/ videos	25	24.8
	Flowers	2	2.0
	Travel and reservation	63	62.4
	Books and magazines	43	42.6
	Fast food	5	5.0
	Cloths and accessories	38	37.6
	Electronic equipment	38	37.6
	Watches and perfumes	49	48.5
	Other	5	5.0

With regard to the delivery service in e-commerce sites, participants were asked about the number of delivery option they usually find in e-commerce sites as well as the preferred deliver option. Firstly, more than 60% of participants mentioned that they usually find 2 or 3 delivery options in e-commerce sites, whereas 23.8% said that they find only one delivery option. In contrast, almost 10% of respondents commonly find 4 or 5 delivery options offered in e-commerce sites. In addition, only 2% of participants mentioned that they find more than 5 delivery options in their

experience with e-commerce sites. Secondly, the preferred delivery methods vary among participants, either by post, couriers, pick up, or express. While more than two third of respondents mentioned "couriers" as their preferred delivery method, post service was mentioned by only 23.8% of the respondents. Also, "pick up" and "express" are somewhat common, mentioned by 36.6% and 22.8% respectively (see table 5-15).

Table 5-15, Number of delivery options offered online, and the preferred method.

Variables	Characteristics	Frequency	Percent
Number of delivery options found in e-commerce sites	1	24	23.8
	2-3	65	64.4
	4-5	10	9.9
	more than 5	2	2.0
	Total	101	100
Preferred delivery option	By post	26	25.7
	Couriers	74	73.3
	Pick up	37	36.6
	Express	23	22.8

5.4.1. Online shopping experience with different type of products

Participants were asked about different types of products that are offered online. These products have been divided into five groups based on their natures. The first category "Group A" includes mobiles, computers and laptops, computer hardware, TVs and LCDs, Cameras, and DVD players. The second category "Group B" includes gold and jewelry, watches and glasses, beauty and health products, perfumes, and clothes and shoes. The third category "Group C" includes packaged software, music CDs, games CDs, and movies. The fourth category "Group D" includes books, journals, and magazines. The last category "Group E" includes fruits, vegetables, fresh meat, beverages, chocolates and candy, and flowers. Participants were asked about the numbers of times they purchased these types of products. In addition,

they were asked about their preferences for purchasing these products from online store, as well as if they were willing to purchase them from online in the future.

5.4.1.1. Products Group A

Mobiles, computers, laptops, and other products in Group A are relatively common to be purchased from online stores by participants. Even though more than 30% of the participants have not purchased from this category of products, more than 40% of respondents have bought between 1 to 4 times. Moreover, there are a noticeable number of responses who mentioned more than 5 times of purchasing from this group of products. Interestingly, almost 10% of the participants stated that they have purchased more than 10 times from this group of products (See figure 5-3).

In terms of the preference and willingness to purchase from this group of products, participants appear somewhat interested in purchasing these products from online stores more than from physical stores. More than 40% of participants stated that they either agree or strongly agree in preferring to buy these products from e-commerce sites. In contrast, around 30% of respondents do not prefer purchasing any of these goods from online stores. In addition, around a quarter of the participants neither agree nor disagree about the preference of buying any of these commodities from online stores. In terms of purchasing these products in the future, however, participants are more likely to buy these goods from online stores. A large number of participants declared that they are willing to purchase from this group of products in the future, which represents more than 85% of respondents. On the other hand, there were only 14% of the participants who are either unsure or disagree in purchasing from e-commerce sites in the future (see table 5-16).

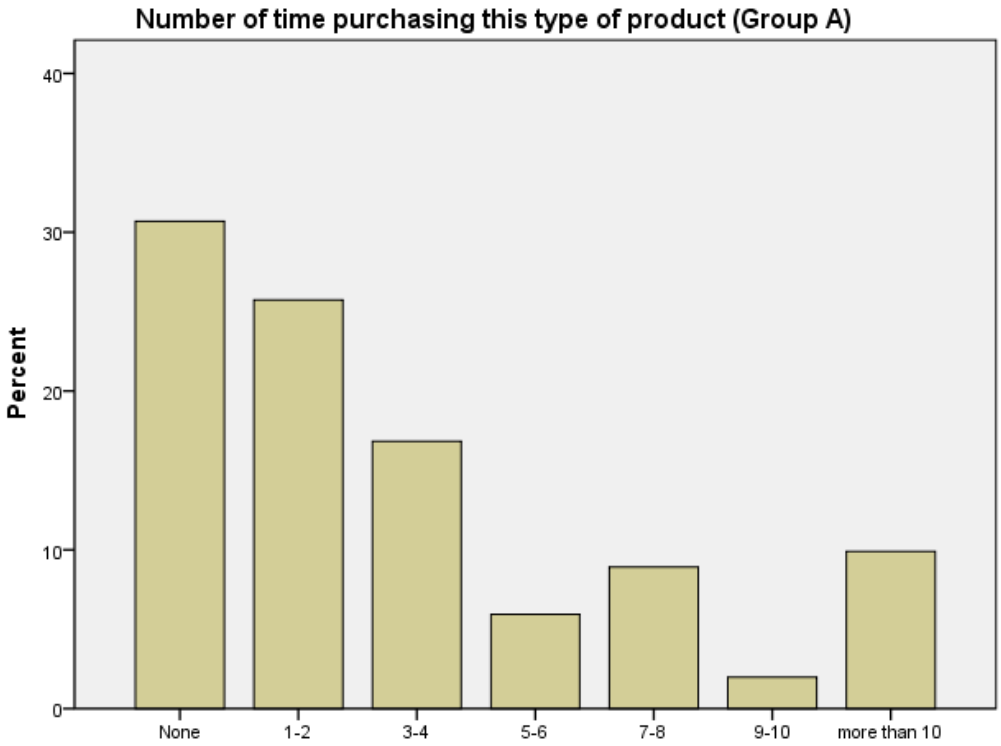

Figure 5-3, Number of purchases from products group A

Table 5-16, Preference and willingness to purchase from products group A

Variables	Characteristics	Frequency	Percent
Purchasing products from group A is preferred from online stores	Strongly agree	14	13.9
	Agree	30	29.7
	Neutral	26	25.7
	Disagree	26	25.7
	Strongly disagree	5	5.0
	Total	101	100.0
Willing to purchase "or will continue purchasing" products from group A in the future	Strongly agree	29	28.7
	Agree	58	57.4
	Neutral	12	11.9
	Disagree	2	2.0
	Total	101	100.0

5.4.1.2. Products Group B

Participants were asked about their experiences in purchasing products from Group B, which consists of gold and jewelry, watches and glasses, beauty and health

products, perfumes, and clothes and shoes. Apart from not having any experience in purchasing from this category which represents more than 36%, participants' responses vary slightly from at least 1 time to more than 10 times. Overall, participants who have purchased from this group of products represent around 65% of the total responses. The highest two choices are 3-4 and more than 10 times of purchasing these products that represent almost 14% for each of the two answers (see figure 5-4 for more details).

In answering the question about preference of purchasing a product from this group from online stores, responses fluctuated slightly. While more than 46% of participants prefer buying these commodities from e-commerce sites, approximately 30% of participants were against the idea of shopping for these products from online stores. Furthermore, a relatively large percentage of respondents were neutral and unsure regarding preference for purchasing these products from online. With regard to the willingness to shop online in the future, participants were more optimistic and positive in their responses. Those who are willing to buy from this group of products from online were far greater than those who are against this idea. In other words, more than 60% of participants were keen to purchase these products from e-commerce sites, whereas only 13% of respondents were unwilling to engage in online shopping in the future. Moreover, around a quarter of respondents were at the middle who neither agree nor disagree about purchasing these goods from online stores in the future (See table 5-17).

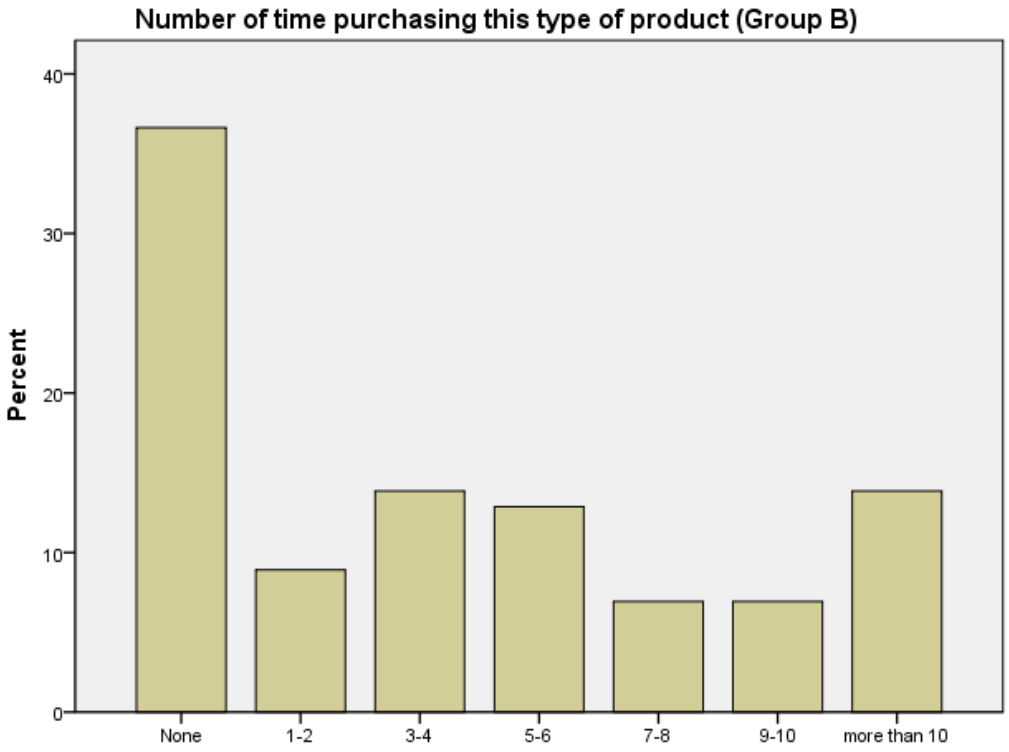

Figure 5-4, Number of purchases from products group B

Table 5-17, Preference and willingness to purchase from products group B

Variables	Characteristics	Frequency	Percent
Purchasing products from group B is preferred from online stores	Strongly agree	12	11.9
	Agree	35	34.7
	Neutral	24	23.8
	Disagree	17	16.8
	Strongly disagree	13	12.9
	Total	101	100.0
Willing to purchase "or will continue purchasing" products from group B in the future	Strongly agree	24	23.8
	Agree	41	40.6
	Neutral	23	22.8
	Disagree	5	5.0
	Strongly disagree	8	7.9
	Total	101	100.0

5.4.1.3. Products Group C

Participants demonstrated minimal experience in purchasing products from Group C which includes packaged software, music CDs, Games CDs, and movies. Unlike the previous two groups of products, purchasing commodities from Group C seemed unpopular among participants. It was found that more than 50% of respondents have never bought any of the products listed in Group C. Furthermore, those who have purchased from this group of products, were relatively few compared with the non-shoppers. Those shoppers who purchased 1 or 2 times form online represent almost 14% of respondents. Interestingly, those who have bought more than 10 times from these goods represent almost 11% of participants (See figure 5-5).

Despite of the limited experience in purchasing commodities from group C, participants have shown relative optimism in the preference and willingness to buy these products from e-commerce sites. A large percentage of participants (50.5%) are in favor of purchasing these products from online stores. On the other hand, around 15% of respondents do not prefer buying this type of products from e-commerce sites. In the middle, more than 33% of participants were unsure about shopping from online stores. In terms of the willingness to purchase products from group C in the future, responses were generally positive. Almost 70% of participants stated that they are willing to purchase from this group of product in the future. In contrast, only 5% of respondents were against the idea of purchasing these products even in the future. Also, approximately 26% of respondents were hesitant to either agree or disagree with shopping for this group of products from online stores (See table 5-18).

Table 5-18, Preference and willingness to purchase from products group C

Variables	Characteristics	Frequency	Percent
Purchasing products from group C is preferred from online stores	Strongly agree	12	11.9
	Agree	39	38.6
	Neutral	34	33.7
	Disagree	12	11.9
	Strongly disagree	4	4.0
	Total	101	100.0
Willing to purchase "or will continue purchasing" products from group C in the future	Strongly agree	20	19.8
	Agree	49	48.5
	Neutral	27	26.7
	Disagree	2	2.0
	Strongly disagree	3	3.0
	Total	101	100.0

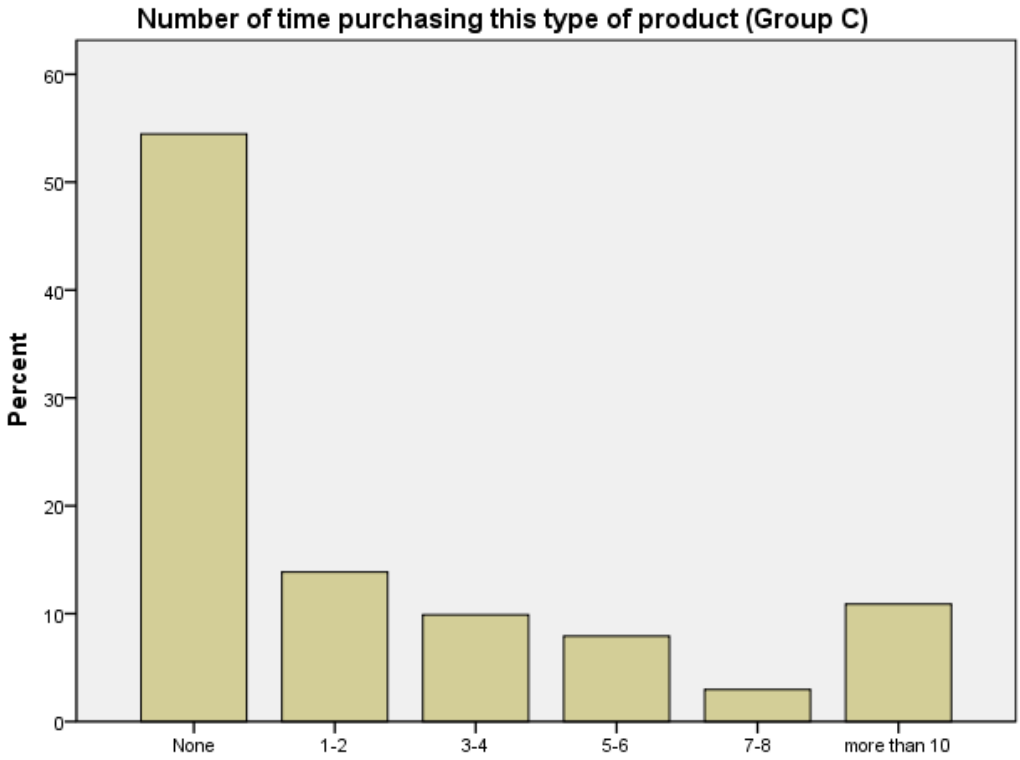

Figure 5-5, Number of purchases from products group C

5.4.1.4. Products Group D

This group of products consists of books, journals and magazines which represents mild popularity among participants. Similar to the previous type of products, more than half of participants have not had any experience purchasing any products from group D. However, around 17% of respondents mentioned that they have bought from these products once or twice. Also, approximately a quarter of participants declared that they have purchased from this group of products from 3 to 10 times, while those who have shopped more than 10 times represent less than 10% (See figure 5-6).

Taking into consideration the preference and willingness to purchase from this group in the future, respondents were advocates of buying this type of products from online stores. Those who either agree or strongly agree on purchasing these commodities represent almost 60% of participants. In contrast, only 17% of respondents were against the idea of buying these products from online stores. With regard to the willingness to shop online in the future, participants also were in favor of purchasing goods in this group from e-commerce sites. Approximately three quarters of participants were willing to use online stores in the future in order to purchase one of the products in group D. However, only 6% of respondents were opposed to buy these goods from online stores (See table 5-19).

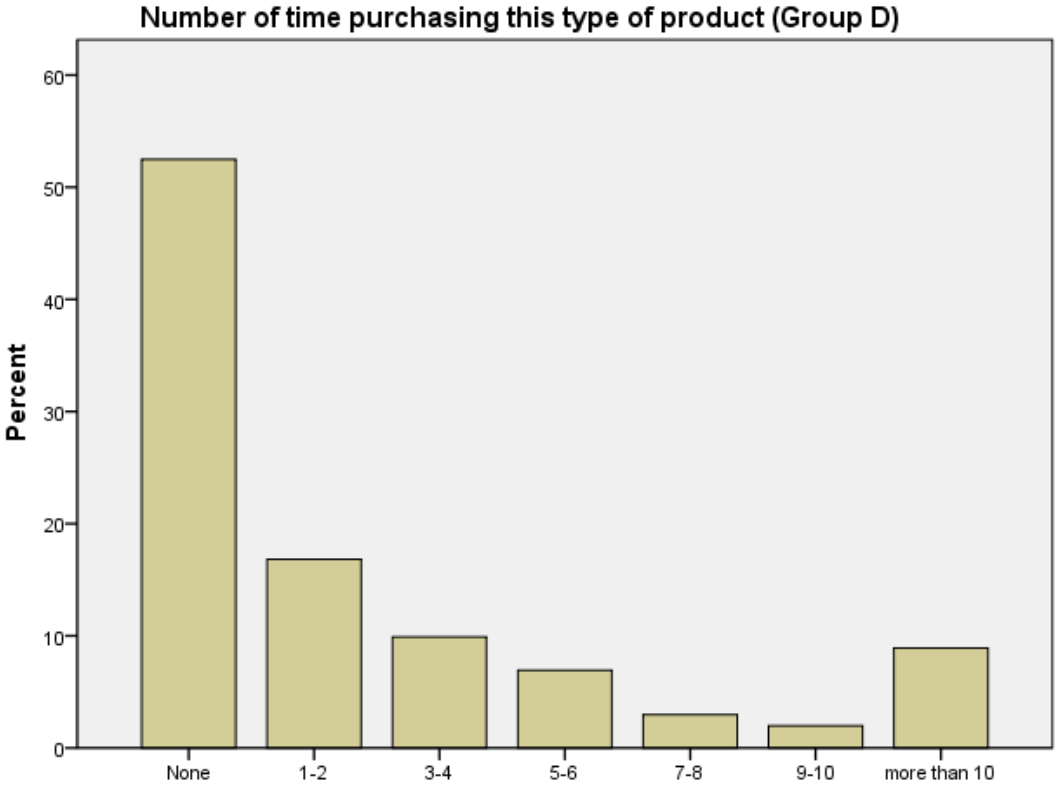

Figure 5-6, Number of purchases from products group D

Table 5-19, preference and willingness to purchase from products group D

Variables	Characteristics	Frequency	Percent
Purchasing products from group D is preferred from online stores	Strongly agree	22	21.8
	Agree	37	36.6
	Neutral	25	24.8
	Disagree	15	14.9
	Strongly disagree	2	2.0
	Total	101	100.0
Willing to purchase "or will continue purchasing" products from group D in the future	Strongly agree	32	31.7
	Agree	42	41.6
	Neutral	21	20.8
	Disagree	4	4.0
	Strongly disagree	2	2.0
	Total	101	100.0

5.4.1.5. Products Group E

Products in Group E consist of foods such as fruits, vegetables, fresh meat, beverages, and chocolates and candy, and also flowers. Almost all participants mentioned that they have limited experience in purchasing these goods from online stores. It is obvious that around 90% of respondents never bought any of group E products from e-commerce sites. Nevertheless, there were some respondents who experienced purchasing these commodities before (1-2 times 7.9%), (3-4 times 1%), and (more than 10 times 4%) (See figure 5-7).

In contrast to their previous online shopping of this group of products, participants were somewhat tolerant regarding the preference and willingness to buy these products from e-commerce sites. Despite the limited experience of online shopping among participants, almost 30% of respondents prefer shopping for these goods from online stores more than from physical stores. On the other hand, more than 50% of participants mentioned that they disagree on purchasing via the Internet. Unlike other group of products, participants showed unwillingness to purchasing this type of products in the future. While less than 30% of respondents were keen to buy these goods from online in the future, more than 70% of respondents either disagreed or were unsure in shopping for these commodities from e-commerce sites (See table 5-20).

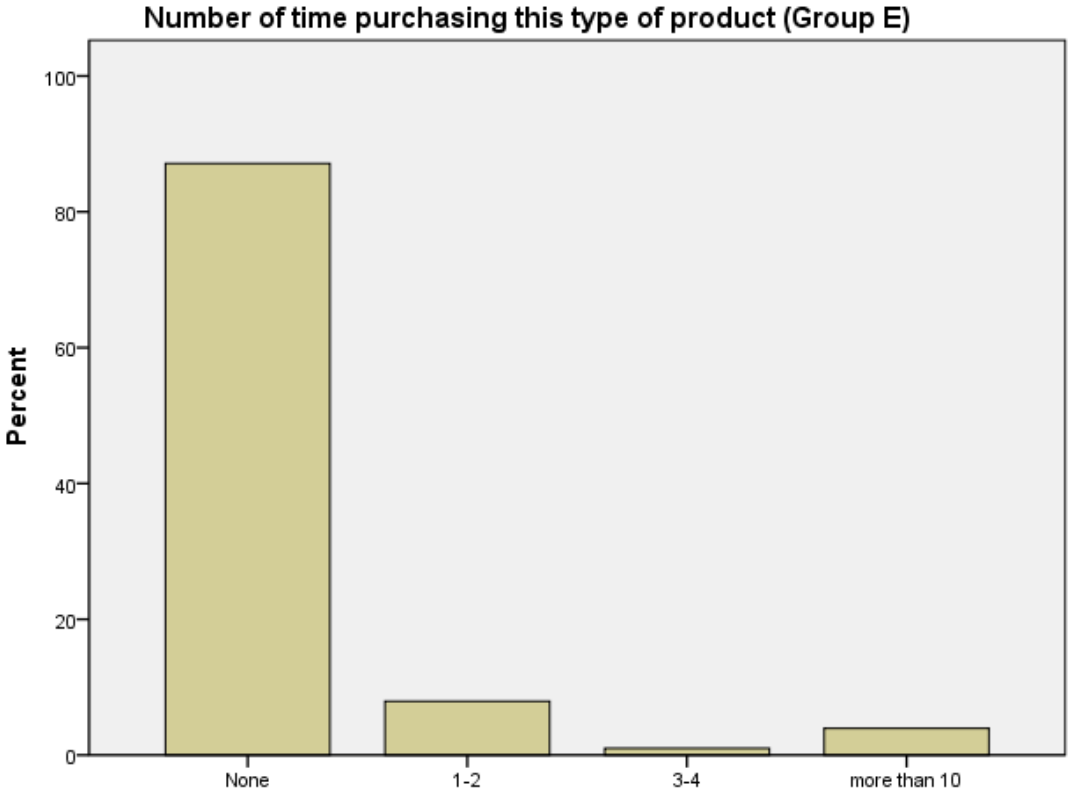

Figure 5-7, Number of purchases from products group E

Table 5-20, Preference and willingness to purchase from products group E

Variables	Characteristics	Frequency	Percent
Purchasing products from group E is preferred from online stores	Strongly agree	14	13.9
	Agree	14	13.9
	Neutral	21	20.8
	Disagree	23	22.8
	Strongly disagree	29	28.7
	Total	101	100.0
Willing to purchase "or will continue purchasing" products from group E in the future	Strongly agree	12	11.9
	Agree	16	15.8
	Neutral	28	27.7
	Disagree	21	20.8
	Strongly disagree	24	23.8
	Total	101	100.0

5.5. Hypotheses testing

Research hypotheses have been divided into five groups, as mentioned earlier in the chapter on Gap, based on the categories of products that have been examined in the study. From each group of products, the delivery factors (cost, duration, and destination) were investigated in order to find the importance of these delivery factors among the four groups: 1) prefer shopping online currently, 2) do not prefer shopping online currently, 3) willing to shop online in the future, and 4) unwilling to shop online in the future. Therefore, the hypotheses are organized as below:

- Group of product (#):
    - Importance of cost of delivery:
        - Among those who prefer shopping online
            - Importance of cost of delivery between those who are willing and those who are unwilling to shop online
        - Among those who do not prefer shopping online
            - Importance of cost of delivery between those who are willing and those who are unwilling to shop online
        - Among those who are willing to shop online in the future
            - Importance of cost of delivery between those who prefer and those who do not prefer shopping online
        - Among those who are unwilling to shop online in the future
            - Importance of cost of delivery between those who prefer and those who do not prefer shopping online
    - importance of duration of delivery:
        - Among those who prefer shopping online
            - Importance of time of delivery between those who are willing and those who are unwilling to shop online
        - Among those who do not prefer shopping online

- Importance of time of delivery between those who are willing and those who are unwilling to shop online

▪ Among those who are willing to shop online in the future

- Importance of time of delivery between those who prefer and those who do not prefer shopping online

▪ Among those who are unwilling to shop online in the future

- Importance of time of delivery between those who prefer and those who do not prefer shopping online

o Importance of the ability to deliver goods to any place “destination”:

▪ Among those who prefer shopping online

- Importance of the ability to reach any destination between those who are willing and those who are unwilling to shop online

▪ Among those who do not prefer shopping online

- Importance of ability to reach any destination between those who are willing and those who are unwilling to shop online

▪ Among those who are willing to shop online in the future

- Importance of ability to reach any destination between those who prefer and those who do not prefer shopping online

▪ Among those who are unwilling to shop online in the future

- Importance of ability to reach any destination between those who prefer and those who do not prefer shopping online

5.6. Procedure for testing hypotheses

Assume that μ is the difference between the two variables that are examined.

Step 1: null and alternate hypothesis

Null hypothesis: Ho: $\mu = 0$

Alternative hypothesis: H1: $\mu \neq 0$

Step 2: a two-tailed test has to be performed due to the inequality of the alternative hypothesis

Step 3: level of significance $\alpha = 0.05$

Step 4: test statistic

Step 5: result

5.7. Products group A (includes mobiles, computers and laptops, computer hardware, TVs and LCDs, Cameras, & DVD players)

In order to examine the importance of each of the delivery factors (cost, duration, and destination), respondents were divided into four groups. First group are those who currently prefer purchasing online, which include 68 respondents out of 101. Second group are those who do not prefer buying online, which include 31 respondents. Third group are those who are willing to purchase this type of products in the future, which comprise 98 respondents. Fourth group are those who are unwilling to buy this type of products in the future, which include only two respondents. The first two hypotheses (1s and 2s) focus on the current online shopping experience (prefer or do not prefer shopping online), while the second two hypotheses (3s and 4s) focus on future online shopping plan (are willing or unwilling to purchase this type of product from e-commerce sites in the future).

The importance of cost of delivery:

Shopping online is preferred more than physical stores.

H1.A.1. we hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase from this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.2836	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examining the importance of cost of delivery among those who prefer shopping online cannot be preceded because there are no responses for those who are unwilling to shop from online stores in the future. However, this can give an indication about the willingness to shop online in the future, where those who prefer shopping online are also willing to continue dealing with e-commerce sites in the future.

The remaining hypotheses are examined in the same method as the first hypothesis. Summaries of the hypotheses are presented below (from hypothesis H1.A.2. to H5.C.4). For full details result see appendix A.

Results of Group A hypotheses:
The importance of cost of delivery

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Do not prefer shopping online	***H1.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	4.7917	2.940	.007	We conclude that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future. However, it is more important for those who are unwilling to shop online.
		Unwilling to shop in the future	2.0000			
Willing to shop online	***H1.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.2836	-5.214	.000	We conclude that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products. However, it is more important for those who prefer shopping online.
		Do not prefer shopping online	4.7917			
Unwilling to shop online	***H1.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	0	0[a]		
		Do not prefer shopping online	2.0000			

a. t cannot be computed because at least one of the groups is empty.

The importance of time of delivery (Group A)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H1.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.2121	0[a]		
		Unwilling to shop in the future	0			
Do not prefer shopping online	***H1.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	4.3846	2.252	.033	We conclude that the importance of time of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future. However, it is more important for those who are unwilling to shop online.
		Unwilling to shop in the future	2.0000			
Willing to shop online	***H1.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.2121	-3.530	.001	We conclude that the importance of time of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future. However, it is more important for those who prefer shopping online.
		Do not prefer shopping online	4.3846			
Unwilling to shop online	***H1.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.2836	0[a]		
		Do not prefer shopping online	0			

a. t cannot be computed because at least one of the groups is empty.

The importance of the ability to deliver products to any place (Group A)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H1.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	2.4928	0[a]		
		Unwilling to shop in the future	0			
Do not prefer shopping online	***H1.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.4828	.454	.653	Null hypothesis not rejected. We conclude that the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	3.0000			
Willing to shop online	***H1.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	2.4928	-3.597	.001	We conclude that the importance of the ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	3.4828			
Unwilling to shop online	***H1.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.2836	0[a]		
		Do not prefer shopping online	0			

a. t cannot be computed because at least one of the groups is empty.

5.7.1. Group A summary

After testing the research hypotheses regarding products Group A we found that the importance of delivery factors were seen differently in most groups that were examined. Participants were divided into two major groups: 1) regarding their current online experience (prefers or do not prefer shopping online), and 2) regarding their future online shopping plan (willing or unwilling to shop online in the future). In addition, within these groups participants were classified into two different groups (see table 5-15 below). However, there were two groups that were excluded from this test because there was no response for examination. Firstly, those who prefer shopping online cannot be examined regarding their future online shopping because all of them mentioned are willing to shop online in the future. Secondly, those who are unwilling to shop online in the future cannot be examined regarding their current online shopping experience because there were no respondents who do not prefer now and are unwilling to shop online in the future.

The importance of the delivery factors appears commonly different among those who do not prefer and those who are willing to shop from e-commerce sites. Firstly, those who are currently not in favor of shopping online view the delivery factors differently in their future online shopping. Those who do not prefer now but are willing to shop online in the future see the importance of cost and time of delivery differently from those who do not prefer and are unwilling to shop online in the future. However, the importance of the ability to deliver products to any destination was viewed equally between those who do not prefer but are willing, and those who do not prefer and unwilling to shop online in the future. Secondly, the importance of delivery factors (cost, duration of delivery, and the ability to deliver products to any destination) were seen differently among those who are willing to shop from e-commerce sites in the future. Those who prefer now and are willing in the future to shop online view the delivery factors as more important than those who do not prefer now but are willing to shop online in the future.

Table 5-21, Group A summary

Delivery factor	Prefer shopping online		Do not prefer shopping online		Willing to shop online in the future		Unwilling to shop online in the future	
	Willing in the future	Unwilling in the future	Willing in the future	Unwilling in the future	Prefer shopping	Don't prefer shopping	Prefer shopping	Don't prefer shopping
Cost of delivery	No result		**Different**		**Different**		No result	
Duration of delivery	No result		**Different**		**Different**		No result	
Reach any destination	No result		Not different		**Different**		No result	

5.8. Products Group B (includes gold and jewelry, watches and glasses, beauty and health products, perfumes, and clothes and shoes)

In order to examine the importance of each of the delivery factors (cost, duration, and destination), respondents were divided into four groups. First group are those who currently prefer purchasing online, which include 71 respondents out of 101. Second group are those who do not prefer buying online, which include 29 respondents. Third group are those who are willing to purchase this type of products in the future, which comprise 87 respondents. Fourth group are those who are unwilling to buy this type of products in the future, which include 13 respondents. The first two hypotheses (1s and 2s) focus on the current online shopping experience (prefer or do not prefer shopping online), while the second two hypotheses (3s and 4s) focus on future online shopping plan (willing or unwilling to purchase this type of product from e-commerce sites in the future).

Result of Group B hypotheses:

The importance of the cost of delivery

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H2.A.1. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.1324	-.856	.395	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	4.0000			
Do not prefer shopping online	***H2.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	4.0000	-1.858	.075	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	5.2000			
Willing to shop online	***H2.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.1324	-2.121	.037	We conclude that the importance of cost of delivery is different between those who currently prefer and those who do not prefer purchasing this type of products. However, it is more important from those who prefer shopping online.
		Do not prefer shopping online	4.0000			
Unwilling to shop online	***H2.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	4.0000	-1.107	.294	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who currently prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	5.2000			

The importance of time of delivery (Group B)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H2.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.0149	-2.400	.019	We conclude that the importance of time of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future. However, it is more important for those who are willing to shop online in the future.
		Unwilling to shop in the future	5.0000			
Do not prefer shopping online	***H2.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.6111	-1.948	.063	Null hypothesis not rejected. We conclude that the importance of time of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	5.0000			
Willing to shop online	***H2.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.0149	-1.873	.065	Null hypothesis not rejected. We conclude that the importance of time of delivery is not different between those who currently prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	3.6111			
Unwilling to shop online	***H2.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	5.0000	.000	1.000	Null hypothesis not rejected. We conclude that the importance of time of delivery is not different between those who currently prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	5.0000			

The importance of the ability to deliver products to any place (Group B)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H2.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	2.7971	-.234	.816	Null hypothesis not rejected. We conclude that the importance of the ability to reach any place is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	3.0000			
Do not prefer shopping online	***H2.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.5556	-1.778	.087	Null hypothesis not rejected. We conclude that the importance of the ability to reach any place is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	4.5455			
Willing to shop online	***H2.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	2.7971	-2.416	.018	We conclude that the importance of the ability to reach any place is different between those who currently prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	3.5556			
Unwilling to shop online	***H2.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.0000	-1.071	.307	Null hypothesis not rejected. We conclude that the importance of the ability to reach any place is not different between those who currently prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	4.5455			

5.8.1. Group B summary

After testing the research hypotheses regarding products Group B we found that a few cases viewed the importance of delivery factors differently while the majority showed no differences. Participants were divided into two major groups: 1) regarding their current online experience (prefers or do not prefer shopping online), and 2) regarding their future online shopping plan (willing or unwilling to shop online in the future. In addition, within these groups participants were classified into two different groups (see table 5-16 below).

The importance of the delivery factors does not appear significantly different between the groups that were examined. In accordance to current online shopping, the importance of time of delivery is seen differently between those who prefer now and are willing to shop in the future and those who prefer now but are unwilling to shop online in the future. In contrast, there were no differences in the importance of the other delivery factors, “cost and ability to reach”. That is, those who prefer now and willing in the future to buy online view the importance of cost of delivery and the ability to deliver products to any place similarly to those who prefer now but are unwilling to shop online in the future. On the other hand, those who are not in favor of shopping online at present, view the importance of delivery factors equally in their future online shopping plan. That is, those who do not prefer now but are willing to shop online in the future perceive the importance of the delivery factor similar to those who do not prefer now and unwilling to purchase this type of products from online stores in the future.

With regard to future online shopping plan, the importance of the delivery factors varies slightly among those who are willing to purchase this type of products from online stores in the future. The importance of cost of delivery and the ability to deliver products to any destination were seen differently between those who are willing in the future and prefer at present and those who are willing in the future but do not prefer shopping online at present where they are important for the former

group more than the later. However, those two groups did not perceive a difference in the importance of time of delivery. On the other hand, those who are unwilling to purchase online in the future viewed the importance of the delivery factors similarly. In other words, there were no differences in the importance of the delivery factors "cost, time, and reach" between those who are unwilling in the future but prefer at present and those who are unwilling in the future and do not prefer shopping online at present.

Table 5-22, Group B summary

Delivery factor	**Prefer shopping online**		**Do not prefer shopping online**		**Willing to shop online in the future**		**Unwilling to shop online in the future**	
	Willing in the future	Unwilling in the future	Willing in the future	Unwilling in the future	Prefer shopping	Don't prefer shopping	Prefer shopping	Don't prefer shopping
Cost of delivery	Not different		Not different		**Different**		Not different	
Duration of delivery	**Different**		Not different		Not different		Not different	
Reach any destination	Not different		Not different		**different**		Not different	

5.9. Products Group C (includes packaged software, music CDs, games CDs, and movies)

In order to examine the importance of each of the delivery factors (cost, duration, and destination), respondents were divided into four groups. First group are those who currently prefer purchasing online, which include 85 respondents out of 101. Second group are those who do not prefer buying online, which include 16 respondents. Third group are those who are willing to purchase this type of products in the future, which comprise 95 respondents. Fourth group are those who are unwilling to buy this type of products in the future, which include only 4 respondents. The first two hypotheses (1s and 2s) focus on the current online shopping experience (prefer or do not prefer shopping online), while the second two hypotheses (3s and 4s) focus on future online shopping plan (willing or unwilling to purchase this type of product from e-commerce sites in the future).

Result of Group C hypotheses:

The importance of cost of delivery

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H3.A.1. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	2.8554	0[a]		
		Unwilling to shop in the future	0			
Do not prefer shopping online	***H3.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	4.8000	-1.117	.286	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	6.0000			
Willing to shop online	***H3.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	2.8554	-4.383	.000	We conclude that the importance of cost of delivery is different between those prefer and those who do not prefer purchasing this type of products. However, it is more important for those who currently prefer shopping online.
		Do not prefer shopping online	4.8000			
Unwilling to shop online	***H3.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	0	0[a]		
		Do not prefer shopping online	6.0000			

a. t cannot be computed because at least one of the groups is empty.

The importance of time of delivery (Group C)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H3.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.0476	0[a]		
		Unwilling to shop in the future	0			
Do not prefer shopping online	***H3.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	4.0909	1.639	.125	Null hypothesis not rejected. We conclude that the importance of time of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	2.5000			
Willing to shop online	***H3.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.0476	-2.491	.015	We conclude that the importance of time of delivery is different between those prefer and those who do not prefer purchasing this type of products. However, it is more important for those who currently prefer shopping online.
		Do not prefer shopping online	4.0909			
Unwilling to shop online	***H3.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	0	0[a]		
		Do not prefer shopping online	2.5000			

a. t cannot be computed because at least one of the groups is empty.

The importance of the ability to deliver products to any place (Group C)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H3.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	2.6941	0[a]		
		Unwilling to shop in the future	0			
Do not prefer shopping online	***H3.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	4.1818	2.037	.061	Null hypothesis not rejected. We conclude that the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	2.4000			
Willing to shop online	***H3.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	2.6941	-4.015	.000	We conclude that the importance of the ability to deliver products to any place is different between those prefer and those who do not prefer purchasing this type of products. However, it is more important for those who currently prefer shopping online.
		Do not prefer shopping online	4.1818			
Unwilling to shop online	***H3.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	0	0[a]		
		Do not prefer shopping online	2.4000			

a. t cannot be computed because at least one of the groups is empty.

5.9.1. Group C summary

After testing the research hypotheses regarding products Group C we found that the importance of delivery factors were seen differently in most groups that were examined. Participants were divided into two major groups: 1) regarding their current online experience (prefers or do not prefer shopping online), and 2) regarding their future online shopping plan (willing or unwilling to shop online in the future). In addition, within these groups participants were classified into two different groups (see table 5-17 below). However, there were two groups that were excluded from this test because of lack of response for examination. Firstly, those who prefer shopping online cannot be examined regarding their future online shopping because all of them mentioned that they are willing to shop online in the future. Secondly, those who are unwilling to shop online in the future cannot be examined regarding their current online shopping experience because there were no respondents who prefer now and are unwilling to shop online in the future.

The importance of the delivery factors appears commonly different in the group of participants while it is not different in the other group that was examined. With regard to those who are currently not in favor of shopping online perceive the importance of the delivery factors “cost, time, and reach” equally in their future online shopping. Those who do not prefer now but are willing to shop online in the future see the importance of cost of delivery, time of delivery, and the ability to deliver products to any destination similarly to those who do not prefer now and are unwilling to shop online in the future. In accordance with future online shopping, those who are willing in the future and prefer at present perceive the importance of delivery factors differently from those who are willing in the future but do not prefer at present. Furthermore, the delivery factors were relatively important for those who are willing in the future and prefer at present more than those who are willing in the future but do not prefer purchasing this type of products at the current time.

Table 5-23, Group C summary

Delivery factor	Prefer shopping online		Do not prefer shopping online		Willing to shop online in the future		Unwilling to shop online in the future	
	Willing in the future	Unwilling in the future	Willing in the future	Unwilling in the future	Prefer shopping	Don't prefer shopping	Prefer shopping	Don't prefer shopping
Cost of delivery	No result		Not different		**Different**		No result	
Duration of delivery	No result		Not different		**Different**		No result	
Reach any destination	No result		Not different		**Different**		No result	

5.10. Product Group D (includes books, journals, and magazines)

In order to examine the importance of each of the delivery factors (cost, duration, and destination), respondents were divided into four groups. First group are those who currently prefer purchasing online, which include 84 respondents out of 101. Second group are those who do not prefer buying online, which include 16 respondents. Third group are those who are willing to purchase this type of products in the future, which comprise 95 respondents. Fourth group are those who are unwilling to buy this type of products in the future, which include only 5 respondents. The first two hypotheses (1s and 2s) focus on the current online shopping experience (prefer or do not prefer shopping online), while the second two hypotheses (3s and 4s) focus on future online shopping plan (willing or unwilling to purchase this type of product from e-commerce sites in the future).

Result of Group D hypotheses:
The importance of cost of delivery

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H4.A.1. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.2561	0[a]		
		Unwilling to shop in the future	0			
Do not prefer shopping online	***H4.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.5455	-1.079	.299	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	4.6000			
Willing to shop online	***H4.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.2561	-.630	.530	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	3.5455			
Unwilling to shop online	***H4.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	0	0[a]		
		Do not prefer shopping online	4.6000			

a. t cannot be computed because at least one of the groups is empty.

The importance of time of delivery (Group D)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H4.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.1728	0[a]		
		Unwilling to shop in the future	0			
Do not prefer shopping online	***H4.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	2.7273	-.684	.505	Null hypothesis not rejected. We conclude that the importance of duration of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	3.2000			
Willing to shop online	***H4.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.1728	1.113	.269	Null hypothesis not rejected. We conclude that the importance of duration of delivery is not different between those who prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	2.7273			
Unwilling to shop online	***H4.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	0	0[a]		
		Do not prefer shopping online	3.2000			

a. t cannot be computed because at least one of the groups is empty.

The importance of the ability to deliver products to any place (Group D)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H4.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	2.6786	0[a]		
		Unwilling to shop in the future	0			
Do not prefer shopping online	***H4.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	2.9091	-.686	.503	Null hypothesis not rejected. We conclude that the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	3.3333			
Willing to shop online	***H4.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	2.6786	-.657	.513	Null hypothesis not rejected. We conclude that the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	2.9091			
Unwilling to shop online	***H4.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	0	0[a]		
		Do not prefer shopping online	3.3333			

a. t cannot be computed because at least one of the groups is empty.

5.10.1. Group D summary

After testing the research hypotheses regarding products Group D we found that the importance of delivery factors were not seen differently in most groups that were examined. Participants were divided into two major groups: 1) regarding their current online experience (prefers or do not prefer shopping online), and 2) regarding their future online shopping plan (willing or unwilling to shop online in the future. In addition, within these groups participants were classified into two different groups (see table 5-24 below). However, there were two groups that were excluded from this test because of lack of response for examination. Firstly, those who prefer shopping online cannot be examined regarding their future online shopping because all of them mentioned that they are willing to shop online in the future. Secondly, those who are unwilling to shop online in the future cannot be examined regarding their current online shopping experience because there were no respondents who prefer now and are unwilling to shop online in the future.

The importance of the delivery factors does not appear different among groups of participants that were examined. Firstly, the importance of the delivery factors “cost of delivery, time of delivery, and the ability to deliver products to any destination” were perceived equally among those who are not in favor of shopping online at the current time. That is, those who do not prefer now but are willing in the future view the importance of the delivery factors similarly to those who do not prefer now and are unwilling to shop online in the future. Secondly, the importance of the delivery factors appears equal among those who are keen to buy this type of products from e-commerce sites in the future. Those who are willing in the future and prefer shopping online at present perceive the importance of the delivery factors similar to those who are willing in the future but do not prefer now to shop online.

Table 5-24, Group D summary

Delivery factor	Prefer shopping online		Do not prefer shopping online		Willing to shop online in the future		Unwilling to shop online in the future	
	Willing in the future	Unwilling in the future	Willing in the future	Unwilling in the future	Prefer shopping	Don't prefer shopping	Prefer shopping	Don't prefer shopping
Cost of delivery	No result		Not different		Not different		No result	
Duration of delivery	No result		Not different		Not different		No result	
Reach any destination	No result		Not different		Not different		No result	

5.11. Product Group E (includes fruits, vegetables, fresh meat, beverages, chocolates and candy, and flowers)

In order to examine the importance of each of the delivery factors (cost, duration, and destination), respondents were divided into four groups. First group are those who currently prefer purchasing online, which include 47 respondents out of 101. Second group are those who do not prefer buying online, which include 47 respondents. Third group are those who are willing to purchase this type of products in the future, which comprise 56 respondents. Fourth group are those who are unwilling to buy this type of products in the future, which include 40 respondents. The first two hypotheses (1s and 2s) focus on the current online shopping experience (prefer or do not prefer shopping online), while the second two hypotheses (3s and 4s) focus on future online shopping plan (willing or unwilling to purchase this type of product from e-commerce sites in the future).

Result of Group E hypotheses:
The importance of cost of delivery

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H5.A.1. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.1395	-1.594	.118	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	4.2500			
Do not prefer shopping online	***H5.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	5.0909	.101	.920	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	5.0313			
Willing to shop online	***H5.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.1395	-4.597	.000	We conclude that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products. However, it is more important for those who prefer shopping online at present
		Do not prefer shopping online	5.0909			
Unwilling to shop online	***H5.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	4.2500	-.799	.430	Null hypothesis not rejected. We conclude that the importance of cost of delivery is not different between those who prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	5.0313			

The importance of time of delivery (Group E)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H5.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.3256	-1.210	.233	Null hypothesis not rejected. We conclude that the importance of duration of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	4.2500			
Do not prefer shopping online	***H5.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	4.8462	.692	.493	Null hypothesis not rejected. We conclude that the importance of duration of delivery is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	4.4848			
Willing to shop online	***H5.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.3256	-3.319	.002	We conclude that the importance of duration of delivery is different between those who prefer and those who do not prefer buying this type of products. However, it is more important for those who prefer buying online at present.
		Do not prefer shopping online	4.8462			
Unwilling to shop online	***H5.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	4.2500	-.269	.789	Null hypothesis not rejected. We conclude that the importance of duration of delivery is not different between those who prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	4.4848			

The importance of the ability to deliver products to any place (Group E)

	Hypothesis	Pair	Mean	t	Sig. (2-tailed	Result
Prefer shopping online	***H5.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	3.0233	-1.833	.073	Null hypothesis not rejected. We conclude that the importance of the ability to reach any place is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	4.2500			
Do not prefer shopping online	***H5.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.***	Willing to shop in the future	5.5455	.767	.447	Null hypothesis not rejected. We conclude that the importance of the ability to reach any place is not different between those who are willing and those who are unwilling to purchase this type of products in the future.
		Unwilling to shop in the future	5.0556			
Willing to shop online	***H5.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	3.0233	-5.884	.000	We conclude that the importance of the ability to reach any place is different between those who prefer and those who do not prefer buying this type of products. However, it is more important for those who prefer shopping online at present.
		Do not prefer shopping online	5.5455			
Unwilling to shop online	***H5.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.***	Prefer shopping online	4.2500	-.783	.438	Null hypothesis not rejected. We conclude that the importance of the ability to reach any place is not different between those who prefer and those who do not prefer purchasing this type of products.
		Do not prefer shopping online	5.0556			

5.11.1. Group E summary

After testing the research hypotheses regarding products Group E we found that the importance of delivery factors was seen differently in most groups that were examined. Participants were divided into two major groups: 1) regarding their current online experience (prefers or do not prefer shopping online), and 2) regarding their future online shopping plan (willing or unwilling to shop online in the future. In addition, within these groups participants were classified into two different groups (see table 5-25 below).

The importance of the delivery factors appears only different among those who are willing to shop online in the future, while it is not different among the other groups that were examined. With regard to current online shopping, those who are in favor of shopping online and willing in the future perceive the importance of the delivery factors "cost, time, and reach" equally to those who prefer now but are unwilling to shop online in the future. Likewise, those who do not prefer now but are willing to shop online in the future see the importance of delivery factors similar to those who do not prefer now and are unwilling to shop online in the future. In accordance with future online shopping, those who are willing in the future and prefer at present perceive the importance of delivery factors differently from those who are willing in the future but do not prefer at present. Furthermore, the delivery factors were relatively important for those who are willing in the future and prefer at present more than those who are willing in the future but do not prefer purchasing this type of products at the current time. Lastly, the importance of the delivery factors was perceived differently between those who are unwilling in the future but prefer now and those who are unwilling in the future and do not prefer at present to purchase this type of products form online stores.

Table 5-25, Group E summary

Delivery factor	Prefer shopping online		Do not prefer shopping online		Willing to shop online in the future		Unwilling to shop online in the future	
	Willing in the future	Unwilling in the future	Willing in the future	Unwilling in the future	Prefer shopping	Don't prefer shopping	Prefer shopping	Don't prefer shopping
Cost of delivery	Not different		Not different		**Different**		Not different	
Duration of delivery	Not different		Not different		**Different**		Not different	
Reach any destination	Not different		Not different		**Different**		Not different	

Overall Summary

Table 5-26, Overall summary – "the importance of delivery factors"

Delivery factor	Product Group	Prefer shopping online		Do not prefer shopping online		Willing to shop online in the future		Unwilling to shop online in the future	
		Willing in the future	Unwilling in the future	Willing in the future	Unwilling in the future	Prefer shopping	Don't prefer shopping	Prefer shopping	Don't prefer shopping
Cost of delivery	A			√		√			
	B	×		×		√		×	
	C			×		√			
	D			×		×			
	E	×		×		√		×	
Duration of delivery	A			√		√			
	B	√		×		×		×	
	C			×		√			
	D			×		×			
	E	×		×		√		×	
Reach any place	A			×		√			
	B	×		×		√		×	
	C			×		√			
	D			×		×			
	E	×		×		√		×	

( )= No result. (√)= Different. (×)= Not different

Chapter Six: Discussion

6.1. Introduction

This chapter discusses the findings and the literature on the importance of the delivery factors on the preference or rejection of purchasing via online stores. It further discusses different type of products and how the delivery factors are important in buying these different categories of products.

6.2. The delivery factors

In E-commerce world, one of the crucial parts in its success is the shipment of products or commodities to customers. Obtaining a solid delivery system is more essential for selling products that has physical content (i.e. which means it is not digitized products or services). Failing to offer a reliable and affordable delivery service can be the main reason for losing consumers in e-commerce sites. Thus, e-commerce sites are encouraged to obtain multiple delivery options that are relatively cheap and can reach any destination within reasonable time. In other words, the essential factors of the delivery system are: cost of delivery, duration of delivery, and the ability to deliver products to any destination.

These delivery factors were examined on different type of products in order to find the importance of these factors on either preference or rejection of purchasing from online stores at the current time. In addition, the importance of the delivery factors was examined on consumers' decisions among those who are either willing or unwilling to buy products from online stores in the future.

6.2.1. Cost of delivery

In all five categories of products, the importance of cost of delivery appears relatively different in future online shopping more than current online shopping.

With regard to current online shopping, the importance of cost of delivery is different among those who do not prefer purchasing products from group A (includes mobiles, computers and laptops, computer hardware, TVs and LCDs, Cameras, & DVD players), whereas the importance cost of delivery is not different among those who do not prefer purchasing products from group B (includes gold and jewelry, watches and glasses, beauty and health products, perfumes, and clothes and shoes), group C (includes packaged software, music CDs, games CDs, and movies), group D (includes books, journals, and magazines), and products group E (includes fruits, vegetables, fresh meat, beverages, chocolates and candy, and flowers). Those who do not prefer at present but are willing to buy from group A in the future perceive cost of delivery differently from those who do not prefer at present and are unwilling to shop online in the future, where it is more important for the former group more than the later group. As a result, cost of delivery can be one of the main reasons that attract consumers to purchase this type of products from online stores in the future. On the other hand, cost of delivery does not seem one of the major determinants of future online shopping from products in group B, C, D, and E, where those who are willing and those who are unwilling perceive the importance of cost of delivery similarly.

On the other hand, the importance of cost of delivery was noticeably different among those who are willing to purchase from online stores in the future. Apart from products group D, cost of delivery was significant between those who prefer and are willing and those who do not prefer but are willing in the future to purchase products from groups A, B, C, and E from e-commerce sites. Those who are willing in the future and prefer shopping online at present, view cost of delivery as highly important reason in their preference and willingness of purchasing from e-commerce sites. It can be inferred that cost of delivery is one of the crucial players in encouraging consumers to continue shopping from e-commerce sites.

In conjunction with the finding of Baig, et al., (2011) who argue about the importance of cost of delivery, this study confirms that cost of delivery is highly essential in the success of e-commerce. In addition, this study infers that the importance of cost of delivery varies in terms of consumers' preference and willingness to purchase online. That is, those who prefer view cost of delivery different from those who do not prefer shopping online, also those who are willing view cost of delivery different from those who are unwilling to purchase online in the future. Furthermore, the study infers that the importance of cost of delivery varies based on different type of products. Cost of delivery is more important in purchasing products that are relatively expensive such as computers, TVs, jewelry, cloths and packaged software in group A, B, and C, whereas cost of delivery is considered as less important in purchasing products such as books and magazines, etc. However, hardly any of the previous literature mentioned about the importance of cost of delivery with different types of products or with consumers' preference and willingness to purchase online. Thus, this study addresses new significant areas that need considerable attention in future research.

6.2.2. Duration of deliver

Duration of delivery refers to the time that is needed to ship ordered products to consumers. Because this factor relies on different aspects (e.g. transportation infrastructure, geographical features, and type of products etc.) time of delivery is not standardized in all E-commerce sites, even within the same country. Thus, time of delivery varies from one website to another and from one delivery service provider to another. As a result, the duration of delivery can direct consumers' decisions in choosing a delivery option as can be seen below.

Similar to the cost of delivery, the importance of duration of delivery appeared different among those who are willing to purchase in the future, while the importance of time of delivery was not different among those who do not prefer purchasing from online stores at the current time. In accordance with current online

shopping, duration of delivery is critically important in purchasing expensive products in groups A and B (e.g. computers, laptops, TVs, jewelry and gold, watches, and clothes), whereas the importance of time of delivery was not significantly different in purchasing products from other groups of products. In products group A, the importance of duration of delivery is different between those who do not prefer at present but are willing in the future and those who do not prefer at present and are unwilling to shop online in the future. In products group B also the importance of time of delivery is different among those who prefer at present and are willing in the future and those who prefer at present but are unwilling to purchase this type of products in the future, where time of delivery is somewhat important for the former group more than the later group.

On the other hand, the importance of the time of delivery among those who are willing to purchase from online stores varies based on the type of products. Those who are willing in the future and prefer at present perceive the importance of duration of delivery differently from those who are willing in the future but do not prefer at present in purchasing products from group A, C, or E, whereas the importance of time of delivery is not different in purchasing products from group B or D. In purchasing products from group A, C, or E, those who are willing and prefer shopping online perceive time of delivery more important from those who are willing in the future but do not prefer shopping online at present. Another indication of the importance of duration of delivery is in purchasing products from group B or D, where both groups (*those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer at present*) view duration of delivery highly important in their decision to purchase from these types of products. Therefore, duration of delivery is highly seen as one of the crucial players affecting consumers' decisions in shopping online.

In conjunction with the previous literature, this study verifies the importance of time of delivery in consumers' decisions. The importance of time delivery is supported by

previous literature that has been mentioned by Yankelovich (2000; cited in Baig, et al., 2011), shows that 89 percent of online shoppers prioritize to on-time delivery and that consumers see accurate order and delivery information as an essential part of customer service (Bowersox and Closs, 1996; cited in Baig, et al., 2011). Additionally, this study discussed the importance of duration of delivery with different type of products and with different attitudes towards shopping online (i.e. prefer or not, willing or not).

6.2.3. Ability to reach any destination

The importance of the ability to deliver products to any place was relatively similar to the previous two delivery factors (cost and time of delivery) among current and future online shoppers. Those who are not on favor of shopping online at present do not see the importance of the ability to deliver products to any destination differently in their future online shopping. That is, *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling to purchase online in the future* were similar in terms of their attitudes towards the importance of the ability to reach any destination. The ability to deliver products to any destination was not different in future online shopping from all five groups of products (A, B, C, D, and E); thus, this delivery factor has minimal influence in affecting consumers' decisions whether to purchase or not in the future.

However, those who are willing to shopping online in the future view the importance of the ability to deliver products to any destination differently in their current online shopping. Those who are willing in the future and prefer at present perceive the ability to deliver products to any place differently from those who are willing in the future but do not prefer at present purchasing products from group A, B, C, and E. This delivery factor is important for both groups; however it is more important for those who prefer shopping online at present. Interestingly, both groups (prefer or do not prefer at present) perceive the ability to deliver products to

any place highly important in purchasing products from group D which includes books, journals, and magazines.

In concurrence with pertinent literature that discusses the need for reliable delivery system to fulfill consumers' needs, this study confirms the importance of the ability to deliver products to any destination. Numberger and Rennhak (2005) mentioned different distribution service aspects, such as delivery speed, time, flexibility and reliability as important for broader long-term adoption of email orders for physical goods. Furthermore, this study raises the importance of this delivery factors in different scenarios (prefer or not, willing or not) and with different type of products.

Overall, the importance of the delivery factors (cost of delivery, time to delivery, and the ability to deliver products to any destination) varies based on two factors: 1) preference and willingness to purchase from online stores, and 2) type of products. Firstly, for those who are not in favor of shopping online at present delivery factors are less important in their decisions whether to purchase or not in the future from online stores. Therefore, delivery factors have little influence on those who do not prefer shopping online at present in order to encourage them to purchase from e-commerce sites in the future. On the other hand, delivery factors are noticeably important in current online shopping for those who are willing to shop online in the future. That is, delivery factors play significant role in affecting consumers' attitudes to continue shopping online in the future.

Secondly, the role of type of products in affecting the importance of the delivery factors was not crucially significant. The importance of the delivery factors changes slightly when the type of products changes, that is the delivery factors were seen identical across different kind of products. In purchasing products from group B and D, the delivery factors are seen differently which can be attributed to the nature of the these groups of products. In group B, products are generally expensive and required extensive details, whereas in group D, products are somewhat cheap and

popular in online shopping (e.g. books, journals, and magazines). Due to the extreme nature of these two products “B: expensive and somewhat unpopular” and “D: relatively cheap and common sales”, the importance of the delivery factors was different from other products groups.

6.3. Profiling of online shoppers

As one of the initiatives of the study is to provide rich information about E-commerce in Saudi Arabia, which will lead to either confirming pertinent literature or providing additional details regarding this phenomenon in such a developing country. The study verifies majority of the pervious findings about the characteristics of online shoppers in Saudi Arabia. Concurrent with previous results (Almousa, 2011; AAG, 2008; and AAG, 2011), the study reveals that most of online shoppers are predominantly young males and well educated with reasonable experience in online shopping. It was found that around 70% of online shoppers are male and under the age of 30 with high level of education (Bachelor or Master degree). In addition, around 60% of online shoppers are employed in private and public sectors with reasonable level of income (between 1000 to 9000 or more Saudi Riyals per month).

With regard to online shopping, the study found that Saudis are relatively active in purchasing from e-commerce sites. In conjunction with the findings of Almousa (2011) more than 80% of participants have some experience with online shopping. In addition, those e-commerce activists have made between 1 and 10 or more purchases in the last 12 months from online stores. Similar to the findings in Arab Advisor Group (2011) that reveals more than 35% of Saudis purchase products and pay for services through e-commerce services, the study indicated that more than 45% of Saudis nominate purchasing products and services one of the main reasons for using the Internet.

6.4. Delivery system

Delivery service in e-commerce sites does not appear as weak as it is in other developing countries. The delivery service that is offered to Saudis in e-commerce sites seems relatively satisfactory. Online shoppers in Saudi Arabia find acceptable number of delivery options in their previous online shopping. In contrast to Hawk's (2004) findings that mentioned fewer delivery options are offered in three developing nations (Russia, India, and Latin America), this study indicates that Saudis find to some extent more delivery options in online shopping. Hawk (2004) indicated that online shoppers usually find between 1 and 4 delivery option in Russia, between 1 and 2 in India, and between 1 and 3 in Latin American countries. However, more than 60% of online shoppers in Saudi Arabia find 2 or 3 delivery options in e-commerce sites. Additionally, almost 10% of online shoppers find 4 or more delivery options in their experience in purchasing online. However, the two studies confirm the popularity of *Courier* as the most preferred delivery method by more than 70% of online shoppers.

6.5. Preferred products offered online

In accordance with products that are offered online, the study reveals that online shoppers in Saudi Arabia were relatively active in purchasing from most of the products and services that are available in e-commerce sites. E-commerce users in Saudi Arabia prefer "and have experienced" purchasing from a wide range of products and services through online, which include - but not limited - electronics and computers, books and magazines, cloths and accessories, and travel and reservation. Concurrent with the findings in (AAG, 2011) the study reveals that electronics are the most popular products bought online, and airline tickets booking and hotel reservations were the top services paid online among e-commerce users in Saudi Arabia.

With regard to the different categories of products that Peffers (2001) discussed in terms of the possibility of offering these products via e-commerce channel, the study approves some of these recommendations and rejects others. Peffers (2001) argued that there are three type of products that may not suitable to be sold online: 1) jewelry, fashion cloths, beauty and health products “Group B” (high value, high specification requirements), 2) books, journals and magazines “Group D” (mostly information products), and 3) groceries, foot, and flowers “Group E” (low value, high specification requirements). However, the findings of this study challenge Peffers’ findings regarding the difficulty of selling these types of products though E-commerce channels. This study found that online shoppers in Saudi Arabia do prefer purchasing from these groups of products (Group B: 71% prefer and 87% willing in the future), (Group D: 84% prefer and 95% willing in the future) and (Group E: 47% prefer and 56% willing in the future). Therefore, the study rejects Peffers’ argument about the difficulty of selling these groups of products via online stores. However, the study agrees with Peffers who mentioned two groups of products that can be sold successfully over e-commerce channels, which are electronics “Group A” and packaged software, music CDs and movies “Group C”. Therefore, these five groups of products are preferred among online shoppers in Saudi Arabia with some variation of preference; also these groups of products can be sold successfully in Saudi Arabia.

6.6. Summery

This chapter discussed the findings and the literature on the importance of the delivery factors in a developing country “Saudi Arabia”. Further, it argued the effect of these delivery factors on the preference or rejection of purchasing from online stores. This chapter also mentioned the experiences of online shoppers in Saudi Arabia with different type of products and different delivery options in accordance with the previous literature.

Chapter Seven: Limitations and Implications

This chapter identifies some of the limitations that could be avoided in future research. Further, it discusses the implications of this research that can assist all players: businesses in enhancing their e-commerce, governments in deploying e-commerce, and academics in drawing a roadmap for further research.

7.1. Limitations

This section discusses the impediments that faced this research which would need to be taken into consideration in future studies. It addresses the limitations with regard to the scope of the study, sample, methodology, analysis, and findings.

The overall purpose of the study is to examine the importance of the delivery system in online retailing "e-tailling" which is one aspect of B2C E-commerce. In other words, the focus of this research neglects other types of E-commerce such as B2B and G2C. As a result, the findings of the study, which is about the importance of the delivery system, are limited to B2C E-commerce. Further studies can examine the role of the delivery factors in other type of E-commerce (e.g. B2B, G2C, or G2B etc.).

In addition, the sample of the study was chosen based on their experiences in shopping through two e-commerce sites (souq.com and e-mall.com.sa). Invitations were sent to online shoppers based on the databases from these two e-commerce sites in Saudi Arabia. In other words, other online shoppers in Saudi Arabia were neglected who may have experienced online shopping with other e-commerce sites nationally and internationally. Nevertheless, approaching samples through databases of e-commerce sites was one of the possible options in order to invite participants from the unit of analysis which is the online shopping experience. Future studies can involve larger sample from a wide range of e-commerce

websites. Moreover, further studies should engage business and government perspectives besides consumers' perspectives in order to achieve a wider view of delivery system in online retailing.

Due to the relatively limited number of participants, there were some analytical issues which need to be addressed in further research. Some hypotheses could not be tested because of lack of responses from one or both groups aimed to be examined. In addition, some hypotheses were tested with relatively few numbers of responses in one or both groups. Thus, future research is encouraged to involve larger number of participants so as to avoid these limitations.

With regard to the findings of the study, because of the relatively limited time to conduct the study, the demographic and social factors were not involved in the examinations. Initially, the roles of the demographic and social factors were aimed to be assessed with regard to the delivery system. Future research can examine the importance of the delivery from different demographical and social perspectives.

7.2. Implications

The study was conducted to analyze one of the major impediments of E-commerce deployment - the delivery system. The study discussed the importance of the delivery system to consumers in the process of purchasing different types of products. This research contributes in different areas as well as assisting the deployment of e-commerce in Saudi Arabia and in other developing countries. The main implications of this research are presented below:

- To academia: by viewing e-commerce literature, this research contributes in filling the shortages of evaluating e-commerce in a developing country such as Saudi Arabia. Also, the study participates in addressing the importance of different aspects of the delivery system "cost of delivery, duration of

delivery, and the reliability of the delivery provider" which need more attention in further studies. Moreover, this research enhances the knowledge about consumers' preferences and experiences in different types of products which gives a picture of e-commerce situation in Saudi Arabia for future studies.

- To government: the findings of the study assists governments in Saudi Arabia and other developing countries in terms of evaluating the current situation of e-commerce and the requirements for enhancing its deployment. Also, the study addresses the importance of supporting the national mail service which would lead to consumers' satisfaction and involvement in e-commerce. In addition, the study emphasizes the roles of governments in supporting private delivery providers in terms of legislations and establishment which would increase the variety of delivery options within the country.

- To businesses: due to the fact that almost all of e-commerce services are run by private companies, the major outcomes of the study applies to the private sector. The study supports the need for effective, efficient, and reliable delivery system as one of the crucial requirements for successful e-commerce. Besides addressing the importance of the delivery factors, the study facilitates understanding consumers' perspectives and preferences towards the delivery issue. In addition, this research explored consumers' preference and willingness in terms of purchasing different types of products from online stores. Thus, e-commerce sites, small or big, new or old can utilize from this study in improving their businesses as well as understanding their consumers.

This chapter outlined the limitations and implications of this research. It gave some indications of impediments that could be avoided in future research

studies. Further, it discussed the implications of this research and how different players (academics, governments, and businesses) can utilize the outcomes of the study.

Chapter Eight: Conclusion

E-commerce has grown enormously since it has started in early 1990s. According to one estimate, over 875 million consumers have shopped online. According to Forrester, e-commerce sales are projected to carry on growing robustly in the US. Online retail sales will enjoy a 14% compound annual growth rate over the next five years (43). However, majority of developing countries lag behind these figures in the developed world. Because of the late entrance to the world of E-commerce, most of the developing countries are still struggling to solve most E-commerce challenges which include financial, cultural, technical, and infrastructural issues. The poor delivery systems combined with the lack of credit card penetration are the most cited problems of the deployment of B2C e-commerce in developing countries (Anigan, 1999; Bingi et al., 2000; Cheung, 2001; Palumbo & Herbig, 1998; and Hawk, 2004).

Saudi Arabia, as one of the developing countries, faces most of the challenges and impediments of the adoption of e-commerce. Like many other developing countries, e-commerce sites in Saudi Arabia suffer from the relatively weak delivery system that is required for successful e-commerce. The difficulty of reaching urban areas, lack of absolute addressing, somewhat inactive national mail service, and a limited number of delivery providers, all these challenges weaken the deployment of e-commerce in Saudi Arabia.

This research aimed to explore the importance of the delivery service in affecting consumers' decisions towards online shopping. The study examined the importance of the delivery factors (effectiveness, efficiency, and reliability) in whether accepting or rejecting purchasing from online stores. In addition, the study focused in the role of different types of products in affecting the importance of the delivery factors. This paper also offered an overview of online shoppers in Saudi Arabia in terms of

the demographic characteristics, online shopping experiences, and preferences of delivery options.

The originality of this research is presented in the investigation of relatively new areas of the delivery system in a developing country. Hardly any previous literature examined the importance of the delivery factors (cost of delivery, duration of delivery, and the ability to deliver products to any destinations) in affecting consumers' preference and willingness to purchase from e-commerce sites.

The key finding of the study is that delivery factors play vital roles in affecting consumers' decisions to continue purchasing from online stores. Cost of delivery, duration of delivery, and the ability to deliver products to any destinations were found essential in encouraging consumers to purchase from online stores in the future. However, delivery factors were not the main reasons for rejecting online shopping. For those who are not in favor of shopping online, delivery factors appear insignificant in their decisions towards purchasing from e-commerce sites, where other reasons can be important more than the delivery factors in the reluctance of shopping online.

The study also indicated that the type of product has some influence in changing the importance of the delivery factors. The importance of the delivery factors vary from one group of products to another. The delivery factors were relatively important in purchasing expensive and sensitive products (e.g. jewelry and gold, cloths, TVs, computers and laptops, food, and flowers). Whereas, the delivery factors have less importance in purchasing other groups of products that are mainly cheap and commonly offered in e-commerce sites such as books, packaged software, movies, and music CDs. In addition, the study focused on the importance of the delivery factors was almost the same among different groups of products. To some extent, purchasing from different group of products did not change the importance of the

delivery factors. However, the importance of cost of delivery was somewhat higher compared to the importance of other two delivery factors.

With regard to Saudi Arabia, the study inferred that the situation of the delivery system in this part of the world is not as bad as it is other developing countries. Firstly, e-commerce sites were trying to overcome the limitations in the delivery system by offering alternative delivery options and by arranging their own deliveries. Secondly, online shoppers in Saudi Arabia were attempting to familiarize themselves with all available delivery options. Also, the study indicated that online shoppers in Saudi Arabia find a higher number of delivery options in the previous online shopping more than those in other developing countries.

Overall, this research provides insights for future research in order to investigate the necessity of the delivery system in the success of e-commerce, especially in developing countries. Further, the study gives businesses an overview of consumers' perspectives towards the importance of delivery service as well as the preference and willingness towards purchasing different type of products. In addition, officials in Saudi Arabia are encouraged to continue the process towards solid and reliable national mailing system which might lead to further adoption of e-commerce in the country.

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Appendices

Appendix A: hypotheses (from H1.A.2. to H5.C.4.)

Products group A

Do not prefer shopping online

H1.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	4.7917	2.940	.007
	Unwilling to shop in the future	2.0000		

Result

Independent samples t-test was applied in order to find any statistically significant difference between those who do not prefer now but are willing in the future to purchase online and those who do not prefer now and are unwilling in the future to purchase from products in group A. The p value is 0.007 which is below the significant level of α=0.05. In other words, it was found that there is a significant difference between those two groups. Therefore, we reject the null hypothesis and approve the alternative hypothesis. We can conclude, thus, that the importance of

cost of delivery is different between those two groups. Moreover, those who do not prefer now and are unwilling in the future perceive the cost of delivery as more important from those who do not prefer now but are willing in the future to purchase from this group of products.

Willing to purchase in the future

H1.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.2836	-5.214	.000
	Do not prefer shopping online	4.7917		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.000 (below the significant level of α=0.05) refers to a significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we infer that those who are willing in the future and prefer at present view the importance of cost of delivery differently from those who are willing in the future but do not prefer at the current time to purchase this type of products from online stores. Furthermore, the cost of delivery appears important for those who are

willing and prefer at present more than from those who are willing in the future but do not prefer at preset to buy from online stores.

Unwilling to purchase in the future

H1.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	0	0[a]	
	Do not prefer shopping online	2.0000		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of cost of delivery among those who are unwilling to shop online in the future could not proceed because there were no responses for those who are unwilling in the future but prefer at present to shop from online stores. However, this can give an indication about the unwillingness to shop online in the future, where those who are unwilling to shop online in the future also do not prefer shopping online at the current time.

The importance of time of delivery

Prefer shopping online

H1.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.2121	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of duration of delivery among those who prefer shopping online could not proceed because there were no responses for those who are unwilling in the future but prefer at present to shop from online stores. However, this can give an indication about the preference of shopping online, where those who prefer shopping online at present also are willing to shop online in the future.

Do not prefer shopping online

H1.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	4.3846	2.252	.033
	Unwilling to shop in the future	2.0000		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.033 which is below the significant level of α=0.05. In other words, it was found that there is a statistically significant difference between those who do not prefer but are willing in the future and those who do not prefer and are unwilling in the future to shop online. Consequently, we reject the null hypothesis and approve the alternative hypothesis. Thus, we can conclude that the importance of time of delivery is different between the two groups. Furthermore, time of delivery appears relatively important for those who do not prefer and are unwilling in the future more than those who do not prefer now but are willing in the future to shop online.

Willing to shop online in the future

H1.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.2121	-3.530	.001
	Do not prefer shopping online	4.3846		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.001 (below the significant level of α=0.05) refers to a significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of duration of delivery is different between those who are willing in the future and prefer at present and those who are willing in the future but do not prefer shopping online at the current time. Moreover, the former group perceives time of delivery more important from the later group.

Unwilling to shop online in the future

H1.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	3.2836	0[a]	
	Do not prefer shopping online	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of duration of delivery among those who are unwilling to shop online in the future could not proceed because there were no responses for those who are unwilling in the future and do not prefer at present to shop from online stores. However, this can give an indication about the unwillingness of shopping online, where those who are unwilling to shop online in the future have some experience in shopping online at present, but for some reasons they change their decisions to continue purchasing from online stores in the future.

The importance of the ability to deliver to any destination

Prefer shopping online

H1.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	2.4928	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of the ability to deliver products to any destination among those who prefer shopping online could not proceed because there were no responses for those who prefer at present but are unwilling in the future to shop from online stores. However, this can give an indication about the preference of shopping online, where those who prefer shopping online at present also are willing to shop online in the future.

Do not prefer shopping online

H1.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	3.4828	.454	.653
	Unwilling to shop in the future	3.0000		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.653 which is above the significant level of α=0.05. In other words, it was found that there is no statistically significant difference between those who do not prefer and are willing in the future and those who do not prefer now but are unwilling in the future to shop online. Therefore, we cannot reject the null hypothesis and cannot accept the alternative hypothesis. As a result, we can conclude that the importance of the ability to deliver products to any destination is not different between the two groups. In other words, those two groups perceive the importance of the ability to reach any destination similar to each other.

Willing to shop in the future

H1.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	2.4928	-3.597	.001
	Do not prefer shopping online	3.4828		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.001 which is below the significant level of α=0.05 refers to a significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of the ability to deliver products to any destination is different between those who are willing in the future and prefer at present and those who are willing in the future but do not prefer shopping online at the current time. Furthermore, the ability to reach any destination seems relatively important for the former group more than the later group.

Unwilling to shop online in the future

H1.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	3.2836	0[a]	
	Do not prefer shopping online	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of the ability to deliver products to any destination among those who are unwilling to shop online in the future could not proceed because there were no responses for those who do not prefer at present and are unwilling in the future to shop from online stores. However, this can give an indication about the unwillingness of shopping online, where those who are unwilling to shop online in the future do prefer shopping online at present, but there are some reasons behind rejection of shopping online in the future.

Products Group B

The importance of cost of delivery

Prefer shopping online

H2.A.1. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.1324	-.856	.395
	Unwilling to shop in the future	4.0000		

Result

The independent samples t-test illustrates a negative result between the two variables. The p value is 0.395 which is above the significant level of α=0.05. This result does not provide evidence of a statistically significant difference between the means of the two variables. Therefore, we cannot reject the null hypothesis and cannot accept the alternative hypothesis. As a result, we conclude that the importance of cost of delivery is not different between those prefer now and are willing in the future and those who prefer now but are unwilling in the future to purchase from this type of products.

Do not prefer shopping online

H2.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	4.0000	-1.858	.075
	Unwilling to shop in the future	5.2000		

Result

Independent samples t-test was applied in order to find any statistically significant difference among those who do not prefer purchasing this type of product at the current time. The p value is 0.075 which is above the significant level of α=0.05. In other words, it was found that there is no significant difference between the means of the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the importance of cost of delivery is not different between those who do not prefer at present but are willing in the future and those who do not prefer at present and are unwilling in the future to shop online.

Willing to shop online in the future

H2.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.1324	-2.121	.037
	Do not prefer shopping online	4.0000		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.037 (slightly below the significant level of α=0.05) refers to a significant difference between the two variables. Therefore, we can reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of cost of delivery is different between those who are willing in the future and prefer at present and those who are willing in the future but do not prefer shopping online. Furthermore, those who are willing in the future and prefer at present perceive the importance of cost of delivery more important from those who are willing in the future but do not prefer shopping online at present.

Unwilling to shop online in the future

H2.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	4.0000	-1.107	.294
	Do not prefer shopping online	5.2000		

Result

Independent samples t-test was applied to find any significant different between the two variables. The p value is 0.294 which is above the significant level of α=0.05. That is, the result does not show a statistically significant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. Consequently, we infer that the importance of cost of delivery is not different between *those who are unwilling in the future but prefer at present* and *those who are unwilling in the future and do not prefer shopping online at the current time*.

The importance of time of delivery

Prefer shopping online

H2.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.0149	-2.400	.019
	Unwilling to shop in the future	5.0000		

Result

The importance of time of delivery among those who prefer purchasing products from group B was investigated using independent samples t-test. The p value is 0.019 which is below the significant level of α=0.05. This provides evidence of a statistically significant difference. Therefore, we reject the null hypothesis and accept the alternative hypothesis. As a result, we conclude that the importance of duration of delivery is different between *those who prefer at present and are willing in the future* and *those who prefer at present but are unwilling in the future* to shop this type of products from online stores. Furthermore, time of delivery appears relatively important for the former group more than the later group.

Do not prefer shopping online

H2.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	3.6111	-1.948	.063
	Unwilling to shop in the future	5.0000		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.063 which is above the significant level of α=0.05. In other words, it was found that there is no statistically significant difference between the two groups that were examined. Therefore, we cannot reject the null hypothesis and cannot accept the alternative hypothesis. Consequently, we conclude that the importance of time of delivery is not different between tho*se who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to purchase this type of products from online stores.

Willing to shop online in the future

H2.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.0149	-1.873	.065
	Do not prefer shopping online	3.6111		

Result

After conducted a t-test to examine the difference between the means of the two variables, a negative result was observed. The p value 0.065 (above the significant level of α=0.05) refers to an insignificant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. As a result, we conclude that the importance of time of delivery is not different between *those who are willing in the future and prefer at present* and those *who are willing in the future but do not prefer shopping online at present*.

Unwilling to shop online in the future

H2.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	5.0000	.000	1.000
	Do not prefer shopping online	5.0000		

Result

Examining the importance of cost of delivery among those who are unwilling to shop online in the future cannot be preceded because there were equal responses from the two groups. Those who are unwilling in the future but prefer shopping at present responded exactly as those who are unwilling in the future and do not prefer shopping online at the current time.

The importance of the ability to deliver to any destination

Prefer shopping online

H2.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	2.7971	-.234	.816
	Unwilling to shop in the future	3.0000		

Result

Independent samples t-test was applied to find the difference between the two variables. The p value is 0.816 which is above the significant level of α=0.05. This result does not provide evidence of a statistically significant difference. Therefore, we cannot reject the null hypothesis and cannot accept the alternative hypothesis. As a result, we infer that the importance of the ability to deliver commodities to any destination is not different between *those who prefer at present and are willing in the future* and *those who prefer at present but are unwilling in the future* to purchase from this group of products.

Do not prefer shopping online

H2.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	3.5556	-1.778	.087
	Unwilling to shop in the future	4.5455		

Result

Independent samples t-test was applied in order to find any statistically significant difference between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to purchase from products in group B. The p value is 0.087 which is above the significant level of α=0.05. In other words, it was found that there is no statistically significant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. Thus, we conclude that the importance of the ability to deliver goods to any place is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to shop from online stores.

Willing to shop online in the future

H2.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	2.7971	-2.416	.018
	Do not prefer shopping online	3.5556		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.018 which is below the significant level of α=0.05 refers to a significant difference between the two groups that were examined. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we infer that the importance of the ability to deliver products to any destination is different between *those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer shopping online at present*. Moreover, the ability to deliver products to any destination appears relatively important for the former group more than the later group.

Unwilling to shop online in the future

H2.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	3.0000	-1.071	.307
	Do not prefer shopping online	4.5455		

Result

Independent samples t-test illustrates a negative result after examining the means of the two groups. The p value 0.307 which is above the significant level of α=0.05 reveals an insignificant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the importance of the ability to deliver goods to any place is not different between *those who are unwilling in the future but prefer at present* and *those who are unwilling in the future and do not prefer shopping online at the current time*.

Products Group C

The importance of cost of delivery

Prefer shopping online

H3.A.1. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase from this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	2.8554	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of cost of delivery among those who prefer shopping online could not proceed because there were no responses for those who prefer at present but are unwilling in the future to shop online. However, this can give an indication about the preference of shopping online, where those who prefer shopping online at present also are willing to shop online in the future.

Do not prefer shopping online

H3.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	4.8000	-1.117	.286
	Unwilling to shop in the future	6.0000		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.286 which is above the significant level of α=0.05. In other words, it was found that there is no statistically significant difference between the two groups that were examined. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. Consequently, we infer that the importance of cost of delivery is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling* to shop online in the future.

Willing to shop online in the future

H3.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	2.8554	-4.383	.000
	Do not prefer shopping online	4.8000		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.000 which is below the significant level of α=0.05 refers to a significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of cost of delivery is different between *those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer shopping online at present*. Furthermore, cost of delivery appears more important for the former group more than the later group.

Unwilling to shop online in the future

H3.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	0	0[a]	
	Do not prefer shopping online	6.0000		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of cost of delivery among those who are unwilling to shop online in the future could not proceed because there were no responses for those who are unwilling in the future but prefer at present. However, this can give an indication about the unwillingness of shopping online, where those who are unwilling to shop online in the future also do not prefer purchasing this type of products at the current time.

The importance of time of delivery

Prefer shopping online

H3.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.0476	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of duration of delivery among those who prefer shopping online could not proceed because there were no responses for those who prefer at present but are unwilling in the future to shop online. However, this can give an indication about the preference of shopping online, where those who prefer shopping online at present also are willing to shop online in the future.

Do not prefer shopping online

H3.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	4.0909	1.639	.125
	Unwilling to shop in the future	2.5000		

Result

Independent samples t-test was applied in order to find any statistically significant difference among those who do not prefer shopping online. The p value is 0.125 which is above the significant level of α=0.05. In other words, it is found that there is no statistically significant difference between the two groups that were examined. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the importance of time of delivery is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to shop from this group of product.

Willing to shop online in the future

H3.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.0476	-2.491	.015
	Do not prefer shopping online	4.0909		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.015 (below the significant level of α=0.05) refers to a significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of time of delivery is different between *those who are willing in the future and prefer at present* and t*hose who are willing in the future but do not prefer shopping online*. Furthermore, the former group perceives the time of delivery as more important from the later group.

Unwilling to shop online in the future

H3.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	0	0[a]	
	Do not prefer shopping online	2.5000		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of time of delivery among those who are unwilling to shop online in the future could not proceed because there were no responses for those who are unwilling in the future but prefer at present. However, this can give an indication about the unwillingness of shopping online, where those who are unwilling to shop online in the future also do not prefer purchasing this type of products at the current time.

The importance of the ability to deliver products to any destination

Prefer shopping online

H3.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	2.6941	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of duration of delivery among those who prefer shopping online could not proceed because there were no responses for those who prefer at present but are unwilling in the future to shop online. However, this can give an indication about the preference of shopping online, where those who prefer shopping online at present also are willing to shop online in the future.

Do not prefer shopping online

H3.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	4.1818	2.037	.061
	Unwilling to shop in the future	2.4000		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.061 which is slightly above the significant level of α=0.05. In other words, it was found that there is no significant difference between the two groups that were examined. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can infer, thus, that the importance of the ability to deliver products to any place is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to purchase from this group of products.

Willing to shop online in the future

H3.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	2.6941	-4.015	.000
	Do not prefer shopping online	4.1818		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.000 (below the significant level of α=0.05) refers to a significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of the ability to deliver products to any destination is different between *those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer at present* to purchase from this group of products. Furthermore, the ability to reach any place appears important for the former group more than the later group.

Unwilling to shop online in the future

H3.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	0	0[a]	
	Do not prefer shopping online	2.4000		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of the ability to deliver products to any destination among those who are unwilling to shop online in the future could not proceed because there were no responses for those who are unwilling in the future but prefer at present. However, this can give an indication about the unwillingness of shopping online, where those who are unwilling to shop online in the future also do not prefer purchasing this type of products at the current time.

Product Group D

In order to examine the role of each of the delivery factors (cost, duration, and destination), respondents were divided into two groups. First group are those who prefer and are willing to purchase online, which include 70 respondents out of 101. Second group are those who do not prefer and are unwilling to purchase this type of products, which comprise 31 respondents. The first two hypotheses (1s and 2s) focus on those who prefer shopping online, while the second two hypotheses (3s and 4s) focus on those who do not prefer and are unwilling to purchase this type of product from e-commerce sites.

The importance of cost of delivery

Prefer shopping online

H4.A.1. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.2561	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of cost of delivery among those who prefer shopping online could not proceed because there were no responses for those who prefer at present but are unwilling in the future to shop online. However, this can give an indication about the preference of shopping online, where those who prefer shopping online at present also are willing to shop online in the future.

Do not prefer shopping online

H4.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	3.5455	-1.079	.299
	Unwilling to shop in the future	4.6000		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.299 which is above the significant level of α=0.05. In other words, it was found that there is no significant difference between the two groups. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the importance of cost of delivery is not different between *those do not prefer at*

present but are willing in the future and *those who do not prefer at present and are unwilling in the future* to purchase this type of products.

Willing to shop online in the future

H4.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.2561	-.630	.530
	Do not prefer shopping online	3.5455		

Result

After conducting t-test to examine the difference between the means of the two variables, a negative result was observed. The p value 0.530 (above the significant level of α=0.05) refers to an insignificant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. As a result, we conclude that the importance of cost of delivery is not different between *those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer shopping online at present*.

Unwilling to shop online in the future

H4.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	0	0[a]	
	Do not prefer shopping online	4.6000		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of the cost of delivery among those who are unwilling to shop online in the future could not proceed because there were no responses for those who are unwilling in the future but prefer at present. However, this can give an indication about the unwillingness of shopping online, where those who are unwilling to shop online in the future also do not prefer purchasing this type of products at the current time.

The importance of time of delivery

Prefer shopping online

H4.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.1728	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of duration of delivery among those who prefer shopping online could not proceed because there were no responses for those who prefer at present but are unwilling in the future to shop online. However, this can give an indication about the preference of shopping online, where those who prefer shopping online at present also are willing to shop online in the future.

Do not prefer shopping online

H4.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	2.7273	-.684	.505
	Unwilling to shop in the future	3.2000		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.505 which is above the significant level of α=0.05. In other words, it was found that there is no significant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the duration of delivery is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling to shop online in the future*.

Willing to shop online in the future

H4.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.1728	1.113	.269
	Do not prefer shopping online	2.7273		

Result

After conducting t-test to examine the difference between the means of the two variables, a negative result was observed. The p value 0.269 (above the significant level of α=0.05) refers to an insignificant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. Consequently, we state that the time of delivery is not different between *those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer shopping online at the current time*.

Unwilling to shop online in the future

H4.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	0	0[a]	
	Do not prefer shopping online	3.2000		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of the duration of delivery among those who are unwilling to shop online in the future could not proceed because there were no responses for those who are unwilling in the future but prefer at present. However, this can give an indication about the unwillingness of shopping online, where those who are unwilling to shop online in the future also do not prefer purchasing this type of products at the current time.

The importance of the ability to deliver to any destination

Prefer shopping online

H4.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	2.6786	0[a]	
	Unwilling to shop in the future	0		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of the ability to deliver products to any destination among those who prefer shopping online could not proceed because there were no responses for those who prefer at present but are unwilling in the future to shop online. However, this can give an indication about the preference of shopping online, where those who prefer shopping online at present also are willing to shop online in the future.

Do not prefer shopping online

H4.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	2.9091	-.686	.503
	Unwilling to shop in the future	3.3333		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.503 which is above the significant level of α=0.05. In other words, it was found that there is no statistically significant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the importance of the ability to deliver commodities to any place is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to purchase this type of products.

Willing to shop online in the future

H4.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	2.6786	-.657	.513
	Do not prefer shopping online	2.9091		

Result

After conducting t-test to examine the difference between the means of the two variables, a negative result was observed. The p value 0.513 (above the significant level of α=0.05) refers to an insignificant difference between the two groups. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. Consequently, we can state that the importance the ability to deliver product to any place is not different between *those are willing in the future and prefer at present* and *those who are willing in the future but do not prefer shopping at the current type*.

Unwilling to shop online in the future

H4.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	0	0[a]	
	Do not prefer shopping online	3.3333		

a. t cannot be computed because at least one of the groups is empty.

Result

Examination of the importance of the ability to deliver products to any destination among those who are unwilling to shop online in the future could not proceed because there were no responses for those who are unwilling in the future but prefer at present. However, this can give an indication about the unwillingness of shopping online, where those who are unwilling to shop online in the future also do not prefer purchasing this type of products at the current time.

Product Group E

The importance of cost of delivery

Prefer shopping online

H5.A.1. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.1395	-1.594	.118
	Unwilling to shop in the future	4.2500		

Result

The importance of cost of delivery among those who prefer purchasing products from group E was investigated using independent samples t-test. The p value is 0.118 which is above the significant level of α=0.05. This does not provide evidence of a statistically significant difference. Therefore, we cannot reject the null hypothesis and cannot accept the alternative hypothesis. As a result, we conclude that the importance of cost of delivery is not different between *those who prefer at present and are willing in the future* and *those who prefer at present but are unwilling in the future* to purchase this type of products from online stores.

Do not prefer shopping online

H5.A.2. We hypothesize that the importance of cost of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of cost of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of cost of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	5.0909	.101	.920
	Unwilling to shop in the future	5.0313		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.920 which is below the significant level of α=0.05. In other words, it was found that there is no statistically significant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the importance of cost of delivery is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to purchase this type of products.

Willing to shop online in the future

H5.A.3. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.1395	-4.597	.000
	Do not prefer shopping online	5.0909		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.000 (below the significant level of α=0.05) refers to a statistically significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of cost of delivery is different between *those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer at present* purchasing this type of products. Furthermore, cost of delivery appears important for the former group more than the later group.

Unwilling to shop online in the future

H5.A.4. We hypothesize that the importance of cost of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of cost of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of cost of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	4.2500	-.799	.430
	Do not prefer shopping online	5.0313		

Result

After conducting t-test to examine the difference between the means of the two variables, a negative result was observed. The p value 0.430 which is above the significant level of α=0.05 refers to an insignificant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. As a result, we conclude that the importance of cost of delivery is not different between *those who are unwilling in the future but prefer at present* and *those who are unwilling in the future and do not prefer shopping online at the current time*.

The importance of time of delivery

Prefer shopping online

H5.B.1. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.3256	-1.210	.233
	Unwilling to shop in the future	4.2500		

Result

The importance of duration of delivery among those who prefer purchasing products from Group E was investigated using independent samples t-test. The p value is 0.233 which is above the significant level of α=0.05. This does not provide evidence of a statistically significant difference. Therefore, we cannot reject the null hypothesis and cannot accept the alternative hypothesis. Consequently, we conclude that the importance of time of delivery is not different between *those who prefer at present and are willing in the future* and *those who prefer at present but are unwilling in the future* to purchase this type of products from online stores.

Do not prefer shopping online

H5.B.2. We hypothesize that the importance of duration of delivery is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of time of delivery is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of time of delivery is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	4.8462	.692	.493
	Unwilling to shop in the future	4.4848		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.493 which is above the significant level of α=0.05. In other words, it was found that there is no statistically significant difference between the two groups. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the importance of time of delivery is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to purchase this type of products from online stores.

Willing to shop online in the future

H5.B.3. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.3256	-3.319	.002
	Do not prefer shopping online	4.8462		

Result

After conducting t-test to examine the difference between the means of the two variables, a positive result was observed. The p value 0.958 (above the significant level of α=0.05) refers to a significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of duration of deliver is different between *those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer shopping online at the current time*. In addition, the former group perceives time of delivery as more important from the later group.

Unwilling to shop online in the future

H5.B.4. We hypothesize that the importance of duration of delivery is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of time of delivery is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of time of delivery is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	4.2500	-.269	.789
	Do not prefer shopping online	4.4848		

Result

Independent samples t-test was applied in order to find any significant difference between the two variables. The p value 0.789 which is above the significant level of α=0.05 refers to an insignificant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. As a result, we conclude that the importance of time of delivery is not different between *those who are unwilling in the future but prefer at present* and *those who are unwilling in the future and do not prefer purchasing this type of products at present*.

The importance of the ability to deliver to any destination

Prefer shopping online

H5.C.1. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Prefer shopping online	Willing to shop in the future	3.0233	-1.833	.073
	Unwilling to shop in the future	4.2500		

Result

The importance of the ability to deliver products to any destination among those who prefer purchasing products from group E was investigated using independent samples t-test. The p value is 0.073 which is above the significant level of α=0.05. This result does not provide evidence of a statistically significant difference. Therefore, we cannot reject the null hypothesis and cannot accept the alternative hypothesis. As a result, we conclude that the importance of the ability to deliver products to any destination is not different between *those who prefer at present and are willing in the future* and *those who prefer at present but are unwilling in the future* to purchase this type of products.

Do not prefer shopping online

H5.C.2. We hypothesize that the importance of ability to reach any destination is different between those who are willing and those who are unwilling to purchase this type of products in the future.

Null hypothesis: the importance of the ability to reach any destination is not different between those who are willing and those who are unwilling to shop online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who are willing and those who are unwilling to shop online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Do not prefer shopping online	Willing to shop in the future	5.5455	.767	.447
	Unwilling to shop in the future	5.0556		

Result

Independent samples t-test was applied in order to find any statistically significant difference between the two variables. The p value is 0.447 which is above the significant level of α=0.05. In other words, it was found that there is no statistically significant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. We can conclude, thus, that the importance of the ability to deliver products to any place is not different between *those who do not prefer at present but are willing in the future* and *those who do not prefer at present and are unwilling in the future* to purchase from this group of products.

Willing to shop online in the future

H5.C.3. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Willing to shop online in the future	Prefer shopping online	3.0233	-5.884	.000
	Do not prefer shopping online	5.5455		

Result

After conducting t-test to examine the difference between the means of the two variables, a negative result was observed. The p value 0.000 (below the significant level of α=0.05) refers to a statistically significant difference between the two variables. Therefore, we reject the null hypothesis and approve the alternative hypothesis. As a result, we conclude that the importance of the ability to deliver products to any destination is different between *those who are willing in the future and prefer at present* and *those who are willing in the future but do not prefer shopping online at the current time*. Furthermore, the former group perceives the ability to deliver products to any destination as more important from the later group.

Unwilling to shop online in the future

H5.C.4. We hypothesize that the importance of ability to reach any destination is different between those who prefer and those who do not prefer purchasing this type of products.

Null hypothesis: the importance of the ability to reach any destination is not different between those who prefer and those who do not prefer shopping online.

Alternative hypothesis: the importance of ability to reach any destination is different between those who prefer and those who do not prefer shopping online.

Test statistic

Independent Samples Test

		Mean	t	Sig. (2-tailed)
Unwilling to shop online in the future	Prefer shopping online	4.2500	-.783	.438
	Do not prefer shopping online	5.0556		

Result

Independent samples t-test was applied in order to find any significant difference between the means of the two variables. The p value 0.438 which is above the significant level of α=0.05 refers to an insignificant difference between the two variables. Therefore, we cannot reject the null hypothesis and cannot approve the alternative hypothesis. As a result, we infer that the importance of the ability to deliver commodities to any destination is not different between *those who are unwilling in the future but prefer at present* and *those who are unwilling in the future and do not prefer shopping online at the current online*.

Appendix B: Survey Questions

E-Commerce Survey

This survey is about your experience in shopping online, and about your opinions on the delivery service with different type of products.

Conditions and agreement

We would like to invite you to participate in this survey which is supervised by University of Waikato in New Zealand. This survey aims to observe online shopping behaviour of electronic commerce users in Saudi Arabia, as well as their experience in purchasing different types of products from online stores. Participating in this survey might take between 10 to 15 minutes. However, the outcomes of this participation could be greater than the time spent on filling this questionnaire. The findings of this study are supposed to assist the development of e-commerce in Saudi Arabia. Also, the outcomes of this study will help e-commerce sites in understanding the preference of customers in terms of offering various products and the delivery options. All information from this survey will be secured and will not be viewed by anyone apart from the researcher. Also, there is no sensitive or personal information required. The participant has the right to withdraw from this survey at any time. After completing this survey, the participant can contact the researcher if he or she decided not to participate.

○ Yes, I agree to participate in this survey.

Section One: Types of products sold online:

You will be asked about previous online shopping with different type of products.

Group A

How many times you have bought any of the products below from online stores?

	None	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	More than 10
Mobiles	○	○	○	○	○	○	○
Computers and Laptops	○	○	○	○	○	○	○
Computer parts "Hardware"	○	○	○	○	○	○	○
TVs and LCDs	○	○	○	○	○	○	○
Cameras	○	○	○	○	○	○	○
DVD players	○	○	○	○	○	○	○

To what extent do you agree with the following statements:

You prefer buying these products "or any of them" from online stores more than physical stores:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

You may buy these products "or any of them" from online stores in the future:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

Comments: (Optional)

Reasons for shopping online

Note: this question relates to group "A" which includes, Mobiles, Computers and Laptops, Computer parts "Hardware", TVs and LCDs, Cameras, and DVD players.

You prefer (or may in the future) purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is convenient	○	○	○	○	○	○	○	○
They can be delivered to any place	○	○	○	○	○	○	○	○
The cost of delivery might be cheap	○	○	○	○	○	○	○	○
They can be delivered on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by reliable delivery provider	○	○	○	○	○	○	○	○

Comments: (Optional)

Reasons for rejecting or hesitating to purchase online.

Note: this question relates to group "A" which includes, Mobiles, Computers and Laptops, Computer parts "Hardware", TVs and LCDs, Cameras, and DVD players.

You don't prefer purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is inconvenient	○	○	○	○	○	○	○	○
It is difficult to deliver these products to any place	○	○	○	○	○	○	○	○
The cost of delivery might be expensive	○	○	○	○	○	○	○	○
It is impossible to deliver these products on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by unreliable delivery providers	○	○	○	○	○	○	○	○

Comments: (Optional)

Group B

How many times you have bought any of the products below from online stores?

	None	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	More than 10
Gold and Jewelry	○	○	○	○	○	○	○
Watches and Glasses	○	○	○	○	○	○	○
Beauty and health products	○	○	○	○	○	○	○
Perfumes	○	○	○	○	○	○	○
Clothes and shoes	○	○	○	○	○	○	○

You prefer buying these products "or any of them" from online stores more than physical stores:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

You may buy these products "or any of them" from online stores in the future:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

Comments: (Optional)

Reasons for shopping online

*Note: this question relates to products group "B" which includes, Gold and Jewelry, Watches and Glasses, Beauty and Health products, Perfumes, and Clothes and Shoes.

You prefer (or may in the future) purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is convenient	○	○	○	○	○	○	○	○
They can be delivered to any place	○	○	○	○	○	○	○	○
The cost of delivery might be cheap	○	○	○	○	○	○	○	○
They can be delivered on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by reliable delivery provider	○	○	○	○	○	○	○	○

Comments: (Optional)

Reasons for rejecting or hesitating to purchase online.

*Note: this question relates to products group "B" which includes, Gold and Jewelry, Watches and Glasses, Beauty and Health products, Perfumes, and Clothes and Shoes.

You don't prefer purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is inconvenient	○	○	○	○	○	○	○	○
It is difficult to deliver these products to any place	○	○	○	○	○	○	○	○
The cost of delivery might be expensive	○	○	○	○	○	○	○	○
It is impossible to deliver these products on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by unreliable delivery providers	○	○	○	○	○	○	○	○

Comments: (Optional)

Group C

How many times you have bought any of the products below from online stores?

	None	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	More than 10
Packaged software	○	○	○	○	○	○	○
Music CDs	○	○	○	○	○	○	○
Games CDs	○	○	○	○	○	○	○
Movies	○	○	○	○	○	○	○

You prefer buying these products "or any of them" from online stores more than physical stores:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

You may buy these products "or any of them" from online stores in the future:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

Comments: (Optional)

Reasons for shopping online

*Note: this question relates to products group "C" which includes, Packaged software, Music CDs, Games CDs, and Movies.

You prefer (or may in the future) purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is convenient	○	○	○	○	○	○	○	○
They can be delivered to any place	○	○	○	○	○	○	○	○
The cost of delivery might be cheap	○	○	○	○	○	○	○	○
They can be delivered on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by reliable delivery provider	○	○	○	○	○	○	○	○

Comments: (Optional)

Reasons for rejecting or hesitating to purchase online

*Note: this question relates to products group "C" which includes, Packaged software, Music CDs, Games CDs, and Movies.

You don't prefer purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is inconvenient	○	○	○	○	○	○	○	○
It is difficult to deliver these products to any place	○	○	○	○	○	○	○	○
The cost of delivery might be expensive	○	○	○	○	○	○	○	○
It is impossible to deliver these products on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by unreliable delivery providers	○	○	○	○	○	○	○	○

Comments: (Optional)

Group D

How many times you have bought any of the products below from online stores?

	None	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	More than 10
Books	○	○	○	○	○	○	○
Journals	○	○	○	○	○	○	○
Magazines	○	○	○	○	○	○	○

You prefer buying these products "or any of them" from online stores more than physical stores:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

You may buy these products "or any of them" from online stores in the future:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

Comments: (Optional)

Reasons for shopping online

*Note: this question relates to products group "D" which includes, Books, Journals, and Magazines.

You prefer (or may in the future) purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is convenient	○	○	○	○	○	○	○	○
They can be delivered to any place	○	○	○	○	○	○	○	○
The cost of delivery might be cheap	○	○	○	○	○	○	○	○
They can be delivered on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by reliable delivery provider	○	○	○	○	○	○	○	○

Comments: (Optional)

Reasons for rejecting or hesitating to purchase online.

*Note: this question relates to products group "D" which includes, Books, Journals, and Magazines.

You don't prefer purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is inconvenient	○	○	○	○	○	○	○	○
It is difficult to deliver these products to any place	○	○	○	○	○	○	○	○
The cost of delivery might be expensive	○	○	○	○	○	○	○	○
It is impossible to deliver these products on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by unreliable delivery providers	○	○	○	○	○	○	○	○

Comments: (Optional)

Group E

How many times you have bought any of the products below from online stores?

	None	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	More than 10
Fruits	○	○	○	○	○	○	○
Vegetables	○	○	○	○	○	○	○
Fresh meat	○	○	○	○	○	○	○
Beverages	○	○	○	○	○	○	○
Chocolates and candy	○	○	○	○	○	○	○
Flowers	○	○	○	○	○	○	○

You prefer buying these products "or any of them" from online stores more than physical stores:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

You may buy these products "or any of them" from online stores in the future:

Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
○	○	○	○	○

Comments: (Optional)

Reasons for shopping online

*Note: this question relates to products group "E" which includes, Fruits, Vegetables, Fresh meat, Beverages, Chocolates and candy, and Flowers.

You prefer (or may in the future) purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is convenient	○	○	○	○	○	○	○	○
They can be delivered to any place	○	○	○	○	○	○	○	○
The cost of delivery might be cheap	○	○	○	○	○	○	○	○
They can be delivered on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by reliable delivery provider	○	○	○	○	○	○	○	○

Comments: (Optional)

Reasons for rejecting or hesitating to purchase online

*Note: this question relates to products group "E" which includes, Fruits, Vegetables, Fresh meat, Beverages, Chocolates and candy, and Flowers.

You don't prefer purchasing these products "or any of them" from online stores because:

	Very strongly agree	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Very strongly disagree	Don't know
Buying these products online is inconvenient	○	○	○	○	○	○	○	○
It is difficult to deliver these products to any place	○	○	○	○	○	○	○	○
The cost of delivery might be expensive	○	○	○	○	○	○	○	○
It is impossible to deliver these products on time as mentioned on the website	○	○	○	○	○	○	○	○
Usually, they are delivered by unreliable delivery providers	○	○	○	○	○	○	○	○

Comments: (Optional)

Section Two: Internet and E-Commerce experience:

How many average hours you are online per day?

Less 1hour	1 - 2	3 - 4	5 - 6	More than 6 hours
○	○	○	○	○

How do you rate your computer skills?

- ○ Very good
- ○ Good
- ○ Moderate
- ○ Bad
- ○ Very bad

From where do you most often access the Internet?

- ○ From home
- ○ From School
- ○ From office
- ○ Cyber Cafe
- ○ Other, please specify: _____

What do you use the Internet for? (Please check all apply)

- ☐ Information gathering
- ☐ Academic research
- ☐ Games
- ☐ Reading news
- ☐ E-mail
- ☐ Job-hunting
- ☐ Purchase products or services
- ☐ Social networking "Facebook, tweeter, etc."
- ☐ Other, please specify: _____

When did you start shopping online?

- ○ Recently. Within last six months.

○ More than six months, but less than a year

○ More than a year, but less than three years

○ More than three years

○ Never purchased via the Internet

Generally, what kinds of goods would you be interested in to purchase via online?

Please check that all apply:

☐ Computer and its accessories

☐ Software

☐ CDs/ videos

☐ Flowers

☐ Travel and reservation

☐ Books & magazines

☐ Fast food

☐ Cloths and accessories

☐ Electronic equipment

☐ Watches and perfumes

☐ Other, please specify: _____

How many times you have purchased a product from online stores during the last 12 months?

None	1	2	3	4	5	6	7	8	9	10	More than 10
○	○	○	○	○	○	○	○	○	○	○	○

In your previous online shopping, how many e-commerce sites you have bought from a product or service?

None	1	2	3	4	5	More than 5
○	○	○	○	○	○	○

How many delivery options do you find usually in e-commerce sites?

○ 1

○ 2 - 3

- ○ 4 - 5
- ○ More than 5

What is the preferred method of delivery? (Please check all that apply)

- ☐ By post
- ☐ Couriers
- ☐ Pick up
- ☐ Express
- ☐ Other, please specify: _____

Comments: (Optional)

Section Three: general information about participants

Age

- ○ 21 or under
- ○ 21 - 25
- ○ 26 - 30
- ○ 31- 35
- ○ 36 - 40
- ○ 41 - 45
- ○ 46 - 50
- ○ 51 or Above
- ○ Prefer not to answer

Gender

- ○ Male
- ○ Female

Marital status

- ○ Single
- ○ Married
- ○ Separated or Divorced
- ○ Widow
- ○ Prefer not to answer

Qualification

- ○ Intermediate
- ○ High School
- ○ Bachelor
- ○ Master
- ○ PhD
- ○ Other, please specify: _____

Employment

- ○ Student
- ○ Employed in government sector
- ○ Employed in private sector
- ○ Self employed
- ○ Retired
- ○ Unemployed
- ○ Other, please specify: _____

Level of income:

Monthly income in Saudi Riyals:

- ○ No income
- ○ < 1000
- ○ 1000 - 3000
- ○ 3001 - 6000
- ○ 6001 - 9000
- ○ > 9000

Comments: (Optional)