Designing Government Strategies to Facilitate Diffusion of Online Commerce: A focus on KSA

Rayed AlGhamdi[1], Steve Drew[2], Ahyed AbuGabah[3]
[1]Education Faculty
King Abdulaziz University
Jeddah, Saudi Arabia
[2] ICT School
Griffith University
Brisbane, Australia
[3]Business School
Griffith University
Brisbane, Australia
raalghamdi8@kau.edu.sa, {s.drew, a. abugabah}@griffith.edu.au

ABSTRACT: *This paper presents proposed government strategies to facilitate diffusion of online commerce in the Kingdom of Saudi Arabia (KSA). The development of e-commerce in KSA is progressing very slowly compared to the developed and leading developing nations. Accordingly, this research was conducted to find the key factors involved in this phenomenon. A major finding presented here, is that both buyers and sellers emphasize the need for government involvement to support and promote development of online commerce. Particularly, it indicates the need for strategic government initiatives to provide regulation, legislation, education, and trusted infrastructure for secure payment and delivery. Saudi Arabia presents a unique cultural, technological and political context for the development of e-commerce. We highlight the particular motivators and potential benefits of Saudi government involvement in e-commerce development. Also we review the experience of other countries in this regard. A new model for formulating roles and strategic government initiatives to support the successful diffusion of online retailing in KSA is presented and discussed. This will be of interest to any following the development of e-commerce and the information economy in the Arab nations.*

Keywords: Online Retail, Saudi Arabia, E-commerce Development, Government Strategies

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1. Introduction

The number of commercial organizations in the world that tend to apply electronic commerce systems is on the rise. In the near future, this trend will become not only a tool to simply increase income, but without doubt will be considered an essential means for competition [1]. While developed nations have become familiar with e-commerce, it is still considered an innovation in the Saudi context. Rogers [2] defined an innovation as an idea, practice or object that is perceived as new by an individual or other unit of adoption. Despite the fact that Saudi Arabia has the largest and fastest growth of ICT marketplaces in the Arab region [3-5], e-commerce activities are not progressing at the same speed [6-9]. Currently only a tiny number of Saudi commercial organizations, mostly medium and large companies from the manufacturing sector and mainly Business to Business (B2B), are involved in e-commerce implementation [9].

Separate studies have been conducted to determine the key issues influencing online retailing sales and purchases for both retailers and customers in Saudi Arabia. These studies were conducted using mixed qualitative and quantitative approaches through which several key issues have been indicated. Among these issues, which both retailers and customers emphasized,is the current lack of clear regulations and legislation, and the need of government supervision and support [10-14].AlGhamdi et al [15] indicated that government initiatives to support e-commerce growth in Saudi Arabia are currently a missing key factor.

In the following sections we provide a summary review of literature regarding the nature of retail business in Saudi Arabia; the current state of the nation's online retail sector development; and online retailing in other country. A synthesis of findings from different strands of our research is presented followed by a description of the research methodology used. Insights into the Saudi context highlight the potential that government interventions to facilitate the diffusion of e-commerce may have. A model, based on this research, is presented that indicates the strategic initiatives that the Saudi government might implement for best effect.

2. Literature review

In this section, we look at traditional and online retailing businesses in Saudi Arabia. Government support for e-commerce development and online retailing in other countries is also reviewed

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2.1 Retail Business in Saudi Arabia

The average of annual population growth rate in the Kingdom of Saudi Arabia has reached 3% over the past 10 years. This seems to be playing a role in making Saudi Arabia one of the most dynamic retail markets and most notable in the Middle East region [16]. "With an estimated population of 24.9 million and a per capita GDP of US$24,581 in 2008, Saudi Arabia is the largest and one of the richest retail markets in the Middle East" [17].

Over the last decade, the retail business in Saudi Arabia has seen significant growth. International retailers have entered the local market and the number of local retailers has expanded [18]. In 2010, Saudi Arabia ranked number 4 in the global retail development index [18]. Currently there are 1.4 million employee in retailing sector in Saudi Arabia and expected to reach 2 million within 10 years [19]. The current percentage of Saudi employees in the retail sector is almost 17% (or 270 thousand) with the remaining 83% made up of foreign workers [19]. This represents a significant market place with some unique characteristics.

There are no available official records indicating the size of the retail business in Saudi Arabia. However some sources estimated the size of the retail market in Saudi Arabia is greater than KSR160 billion (US$1= KSR3.75) dominated by small and medium size companies accounting for more than 85% of market share [20, 21]. According to The Saudi Ministry for Municipal and Rural Affairs, the number of retailers in Saudi Arabia reached 242 thousand; 54 thousand of them are licensed for groceries sales [20] with the balance in other consumer goods. The retail sector in the Saudi market is fragmented and dominated by sales in individual stores, despite the emergence of a number of large retail chains in recent years [16].

2.2 Online retail in Saudi Arabia

In Saudi Arabia, so far, the effort towards e-commerce development has not reached the originally stated aspirations of the Ministry of Commerce. Neither does it meet what it sees as the world's expectations of a country of the level of importance and weight in the global economy as Saudi Arabia. Saudi Ministry of Commerce has appointed a committee for e-commerce to prepare a general framework for a plan to apply e-commerce systems in Saudi Arabia. This framework includes the improvement of various factors involved with e-commerce transactions (e.g. IT infrastructure, payment systems, security needs, legislations and regulations, delivery systems etc). The plan also includes the development of e-commerce education and training [3]. However, this information was gained from the first publication booklet of Saudi Ministry of Commerce in regards to e-commerce written in 2001. No further information has been published to either the Saudi Ministry of Commerce website or its documents that provide further details about this committee and its current role in e-commerce development in the country. Official government information on e-commerce in Saudi Arabia is lamentably poor. Since 2006, the responsibility of e-commerce has transferred from the Ministry of Commerce to the Ministry of Communications and Information Technology. This information was gained from an exploratory phone call made in December 2010 to the Saudi Ministry of Commerce. It was explained that the Ministry of ICT in Saudi Arabia is still in its early stages of studying ecommerce. At the time of writing, a survey was conducted by the Ministry of ICT into e-commerce in Saudi Arabia and a report was published in May/June 2011. The report briefly restated that e-commerce in Saudi Arabia is still in its early stages. "While 30% of businesses and 13% of government organizations buy online, only 8% of the businesses sell online. In particular, "clicks and mortar" business is still in its infancy, as most Saudi retail chains have yet to establish an online channel. On the consumer side, there is as yet little adoption of e-commerce, although surveys show that more individuals plan to try it in the future" [9].

Firms in Saudi Arabia seem not to be following the developed countries' rapid progress towards global e-commerce. In contrast, online shoppers in Saudi Arabia are increasing with improved access to technology and communications infrastructure. The Arab Advisory Group carried out an extensive survey in mid-2006, targeting Internet users in four Arab countries (Saudi Arabia, UAE, Kuwait and Lebanon). The survey covered Internet usage and, e-commerce activities in these countries. While UAE ranked first in the rate of annual spending on e-commerce per capita, Saudi Arabia ranked first in the overall money spent on e-commerce activities such as buying from global retailers, e.g. Amazon, eBay, Dell etc, and including airlines tickets and hotels online booking. As for the prevalence of e-commerce activities among the population, UAE ranked first at 25.1%, Saudi Arabia second at 14.3%, Kuwait third at 10.7% and Lebanon last at 1.6% [22]. A recent survey of Saudi Arabia's 11.4 million Internet users (representing 41% of population) found that around 3.1 million Saudis have purchased online. Airline tickets and hotels bookings take the largest percentage of these purchases [17] and [22].

Some studies have been conducted to investigate the challenges of e-commerce in Saudi Arabia. These challenges involve the absence of clear e-commerce regulations, legislation, and rules [23, 26]. Although Saudi Arabia contributes to the efforts of UNCITRAL (United Nations Commission into International Trade Laws) [3], there is a need to have major development in terms of domestic e-commerce regulations, legislations and rules to protect the rights of all parties involved in ecommerce transactions [6, 23, 26]. Other challenges involve the domestic mailing system [5]. Before Saudi Post was established in 2005, individuals had no home addresses [24]; therefore, to receive mail, individuals had to subscribe to have a mailbox in the post office [5]. While there is progress being made towards creating a reliable and trustworthy system of mail to the home, it still has a significant way to go to provide uniform coverage across the country.

This study draws together findings from research stages that have been recently conducted and published in four earlier papers. In these stages we determine key issues, and their interrelationships, that influence online retailing growth for both retailers and customers in Saudi Arabia. Several key issues have been indicated as illustrated in Table1 and Table2 below [10-14].

Rank	**Inhibitors**	**Enablers**
1	Lack of physical inspection	Bricks to support clicks
2	Lack of regulations	Government supervision
3	Privacy concerns	Competitive prices
4	Lack of experience	Trustworthy and secure online payment options
5	Trust concerns	Owning house mailbox
6	Lack of leading retailers offer online sales	Well-designed retailer websites (photos of products)
7	Do not own a home mailbox/ home address	Easy access and fast Internet speed
8	Uncomfortable paying online using credit cards	Provision educational programs
9	Lack of English language understanding	Local banks make owning credit cards easier
10	No/slow access to Internet	Others
11	Others	

Table 1. Overview of the inhibitors and enablers for customers to purchase online from retailers in Saudi Arabia

The most interesting finding is that both retailers and customers emphasized the lack of clear regulations and legislation and the need for government supervision and support. Convincingly, this issue is ranked uniformly at number two in this study. It indicates that any current government efforts to support e-commerce in the country are having insufficient impact to positively influence retailers and customers. This confirms what has been found in the literature stating that the government efforts supporting e-commerce in Saudi Arabia are insufficient [23, 26].

Retailers with previous online sales experience also provide clear and practical indications as to the top enabling factors. These are developing online payment options, enhancing ICT infrastructure and government regulations and support [13]. From customers' perspective, trust in Saudi e-retailers (or the lack of it) is probably the most important factor affecting current and potential Saudi customers. It is apparent from the apparent Saudi confidence in buying from international ecommerce sites that it is the local systems and regulations that are deficient. From this, it is reasonable to draw the implication that the government can play, if it so wishes, a key role in regulating, supervising, and facilitating e-retail in Saudi Arabia [14]. The critical question, then, becomes whether there are valid justifications for the government to take such an interventionist role in normal commerce, as opposed to the cases of e-government and e-learning which involve public services or "social" goods. Such a question must be left to future research. It certainly appears that if e-commerce is to develop in the Saudi context then strategic government intervention will accelerate e-commerce development.

Rank	Inhibitors	Enablers
1	Current habits of people in KSA does not suit online transactions	Providing trustworthy and secure online payment options
2	Lack of clear legislations and rules of e-commerce in KSA	Government support and assistance for e-commerce
3	Lack of e-commerce experience	Develop strong ICT Infrastructure
4	Products are not suitable to be sold online	Educational programs for people and building the awareness of e-commerce in the country
5	Poor ICT infrastructure	Provision of sample e-commerce software for trialling
6	Lack of online payment options in KSA to help build the trust of customers	Others
7	Resistance to change	
8	Others	
9	Not trusting online sales activities	
10	Cannot offer delivery service	
11	Setup cost	
12	Not be profitable/ useful for us	
13	Cannot offer a competitive advantage over competitors	

Table 2. Overview of the inhibitors and enablers for Retailers in Saudi Arabia to adopt e-commerce

2.3 Online Retailing in other countries

The USA followed by the UK account for the world largest market for online retailing. Online retail in USA accounts for 3.6% ($142 billion) of total retail sales in 2008 [34] and in UK accounts for 10.7% (almost $74 billion/52 billion Eur) of UK retail trade in 2010 [35]. Between 1995 and 2000, there was a notable proliferation to start-up/ adopt online retailing systems. "Many of these firms, which were supported by exuberant venture capital and IPO funds, burned through their funding and eventually went out of business when dot.com bubble burst in 2001. Some were bought out for large sums prior to the bust, while others were picked up cheaply afterwards" [36, 37]. Competitors' pressure leaded by Amazon.com and eBay was the main driver for retailers in USA to go online [36].

In the USA there is not so much reliance on government to lead – just to provide the communication system, an education system, and because it is a litigious society, strong legislation that covers every implication of e-commerce [36]. In USA, businesses were mainly attracted to online retailing for the following reasons: (1) easiness and less cost to communicate between consumers and firms, (2) reaching a wider market, and (3) a tax-free environment" [37]. The USA culture is more individualist rather than collectivist. It means that highly the competitive business environment will drive development and continuous innovation in order to keep succeeding and grow market share. The similarity with KSA is that the infrastructure had to be there before e-commerce could flourish.

Singapore with South Korea and Hong Kong represents unique examples of countries where the government represent governments took active roles pushing for e-commerce proliferation [38]. Singaporean government has started supporting e-commerce in the country since the early 90s. Several initiatives have been taken to lead Singapore to the advanced nations in terms of ICT and e-commerce. A plan called "IT2000" was developed in 1991 to guide the country's IT development to the 21st century and transfer Singapore to an "intelligent" country. At the same year, another plan called National Information Infrastructure (NII) was introduced in line with the vision of the IT2000 plan to link computers networks and other information applications in offices, schools, homes and factories across the country. Another project called Electronic Commerce Hotbed (ECH) was introduced in the mid 90s to address pressing issues in regard to ecommerce development and pool all resources of the major involved parties of e-commerce. The emphasis of ECH were on seven major areas: addressing policy concerns, deploying show-cases applications through the efforts of partnership, resolving uncertainties, institute into infrastructure, educating and training, providing incentive schema for innovation, and establishing international linkages. In 1998, Singapore e-commerce master plan was formulated to drive the diffuse of ecommerce usages in the country and enhance its position in the global economy. Its objectives were to develop a global linked e-commerce infrastructure, make the country into an e-commerce hub in the region, encourage and educate local businesses to strategically use e-commerce, promote the public and businesses to use e-commerce through mass education efforts, and establish cross-border e-commerce laws and policies to allow Singaporean businesses to trade confidently with global partners. At the same time, a local enterprise e-commerce program with a total budget of S$9 million was setup to assist local companies using e-commerce systems (Chan & Al-hawamdeh 2002 and ECAS 2010). These initiatives are some to show Singaporean government involvement and support for e-commerce since the early age of e-commerce.

Online shopping shows rapid growth in the developed world. According to Nielsen 2008 survey report, the world's most avid online shoppers come from South Korea (99%), and also South Korea is globally number one in online purchases frequency which is 79% of Internet users purchase online frequently (Nielsen 2008). it is interesting to contemplate how South Korea has reached this position. Significantly, South Korean government has played a key role promoting ecommerce. Their role was not only in relation to developing strong ICT infrastructure and promoting ICT awareness, but also championing e-commerce to drive toward economic success [38]. The active role of the government is one of the defining characteristics of e-commerce success in South Korea [39].

Despite that e-commerce in Malaysia is weaker than that of more advanced countries; it is a leading developing country in this regard [38] which we can learn from. The stages of e-commerce development are different from one city to another. E.g. the development of e-commerce in a developed city, such as the former capital city of Malaysia Kuala Lumpur (KL), is close to that of more advanced countries such as South Korea, Singapore and Finland [38]. As result, the gap of ecommerce and ICT technologies and uses between KL and other rural area is huge.

A master plans, agendas and promoting researches have been developed by several government and private sectors agencies in Malaysia to contribute to e-Commerce development in the country. Malaysian government has allocated approximately US $45 billion for the 9th Malaysian plan (2006-2010). The main emphasis agenda of e-commerce master plan were to promote "confidence in e-commerce, prepare a regulatory framework, build a critical mass of Internet users and introduce an electronic payment system" [40].

Malaysian government has started encouraging small and medium enterprises (SMEs) to adopt e-commerce solutions in their businesses. In December 2009, the government offered the first 100 SMEs free entry-level websites. This followed in Jan 2010 with further offer taking steps to enable SMEs through signing a contract with eBay and PayPal to empower their online businesses using eBay and PayPal. This initiative aimed to provide training value and help Malaysian SMEs to market internationally. Malaysian government offered "a waiver of insertion fees for the first 100 eBay listings and selected features, as well as up to 25% discount on fees for the first 100 payments received via PayPal" [40].

The story of online retailing is unique. Australian online shoppers are increasing whereas Australian leading retailers are still lagging in terms of online sales. Nielsen [41] survey showed that "Australia has one of the world's highest incidences of consumer purchases online, and was ranked in the top 15 countries around the world". In 2006-07, 61% of 11.3 million Internet users have purchase online. This figure increased to 64% (8 million) of 12.6 million Internet users in 2008-09 [42] and in 2009 reached 69% [43]. Nielsen [44] showed that "four in five (80%) Australian Internet users are now shopping online". In 2008, Australians spent around $23b in domestic online retail sales for all sectors and expected to reach $32b by 2012. This figure, in 2008, represented around 3% of retail spending in Australia [43, 45-47]. However, significant amount of online spending from Australians went overseas. 40-60% of online spending goes via international retailers [43, 45, 46, 48]. Local retailers may encounter a threat of international retailers successfully wining their customers. "The trend of Australian spending going to international retailers (either directly or via fees for the platform) is not only a worry for Australian companies; it's a worry for Australia" [46].

It seems that Australian government just recently recognized its role to promote online retailing growth in the country. The recent report about e-commerce in the country was brought by Access Economics Pty Limited in 17 Nov 2010 to Australian Department of Broadband, Communication and the Digital Economy. The report discussed the recent movement of e-commerce in the country and specifically the significant role of online retailing in the digital economy and the future trends. It also discussed negative and positive issues which influence both Australian shoppers and domestic retailers to go online. “The report acknowledges that local retailers could benefit by increasing their online presence. It also finds that, to date, some retailers have not gone online because they do not understand the benefits and are concerned about the cost of set-up and maintenance of an online sales presence” [49]. The government followed these efforts by hosting an online retail forum which was held in Feb 2011 in Sydney aimed to encourage and support domestic retailers explore and develop their online businesses. The forum “brought together Australian retailers and other parts of the supply chain to discuss the opportunities and challenges that exist for Australian retailers in the digital economy”[50]. Furthermore, the government has placed “a comprehensive package to advise and assist with almost every facet of running a small business, including the Small Business Online program, which is helping owners go online, expand their e-business capabilities and engage in the digital economy” [51]. Small Business Online (SBO) was announced in the 2009-10 budget granting $14 million to help small businesses go online by offering training programs, advices and development of e-business resources [52]. AusIndustry is “a specialist program delivery division within the [Australian] Department of Innovation, Industry, Science and Research. It delivers many business programs worth about $2 billion each year... It provides a range of incentives that actually assist businesses to grow. Its focus is really about understanding business, understanding business needs and understanding how the range of incentives across Government can actually support those businesses.” [52]

While it is generally agreed that the commercial industry has to take the main responsibilities in developing e-commerce within a country, the government plays a significant role in promoting e-commerce particularly in “(1) creating a favorable policy environment for e-commerce; and (2) becoming a leading-edge user of e-commerce and its applications in its operations, and a provider to citizens of e-government services, to encourage its mass use.” Government support takes various forms from country to country; however, government regulation can be critical to supporting e-commerce [53]. Comparing developing countries to developed countries, it is apparent that government incentive is most important in the developing world [53]. The aggressive driver for governments in some countries to take active role supporting e-commerce development is achieving economic success (e.g. Singapore, Taiwan, and Germany). In a rich developing nation like KSA this is not such an aggressive motivator so Government support is already taking its own unique form (and pace) but can still be guided effectively by the study of these successful cases.

3. Research Methodology Overview

This project studying the diffusion of online retail in Saudi Arabia is built on the combination of qualitative and quantitative approaches. Qualitative study was conducted first for exploration purposes and was followed by quantitative approach based on qualitative findings for testing purposes. This type of approach is called exploratory mixed methods design [25] which is done “to explore a phenomenon, and then [collect] quantitative data to explain relationships found in the qualitative results” [25]. The mixed methods approach helps to provide an in-depth investigation of the research problem [26].

This study involved 16 interviews with retailers in Saudi Arabia from different sizes and businesses followed by questionnaire survey, for testing purpose, collected from 148 retailers in Saudi Arabia (representing different businesses, sizes, and familiarity with using Internet and online sales). Similarly, interviews conducted with 16 customers (males and females) in Saudi Arabia followed by questionnaire survey collected form 412 customers in Saudi Arabia to test the qualitative stage’s findings in a wider sample.

4. Developing Strategic Initiatives for Saudi Government Intervention

It can be seen from the literature that Government intervention and preparation for successful implementation of e-commerce has been instrumental in its success in countries such as the US, Singapore, South Korea, and Malaysia. Limitations on development are apparent when one considers the Australian experience. Limited government preparation and support for local online business is leading to reliance on an external marketplace that affects the potential success of Australian business and adds to the country’s imports biased balance of trade figures. The Kingdom of Saudi Arabia has a unique set of circumstances and cultural practices that also suggest that a level of Government intervention and preparation is needed for successful e-commerce diffusion. In the Saudi context, as a rich developing nation, competitive commercial development has not been a priority, but on analysis of the strategic initiatives undertaken already, there is a structured plan that is unfurling.

So far, the outcomes achieved in e-commerce development in Saudi Arabia are not reaching the expectations of a country with the importance and weight in the global economy like Saudi Arabia. Governments do have an important role to play in e-commerce. Building the trust in the digital economy should be priority number one. As discussed in earlier section, consumers and retailers in Saudi Arabia seem not to trust this type of business though not because of ignorance but because of the absence of a clear regulation system. As mentioned earlier, although Saudi Arabia contributes to the efforts of UNCITRAL, e-commerce regulations, legislations and rules to protect the rights of all parties involved in e-commerce transactions remain unaddressed.

So, we propose a model in order to promote an attractive e-commerce environment in Saudi Arabia. The model has five important elements as classified with high priority from the previous research stage findings. These elements involve: introducing e-commerce law, offering trustworthy and secure online payment options, introducing e-commerce educational programs, enhancing the national delivery system, and developing strong ICT infrastructure.

As yet, the Ministry of Commerce and Chambers of Commerce in Saudi Arabia have no significant involvement with ecommerce. Since 2006 the responsibility of e-commerce has transferred to the Ministry of Communications and Information Technology (MCIT) to avoid overlapping. However, MCIT also currently has no significant involvement with e-commerce [15]. Data collected form Ministry of Commerce and MCIT showed there is no strategy to develop e-commerce activities in the country. It seems each government body does not understand clearly its role in this new type of business. E-commerce business is not only about running a website and selling via it. Clarifying the rules of the e-marketplace should be highly prioritized by the Ministry of Commerce. Legal and commercial framework, financial issues and intellectual property protection are all very important to be clarified. This step contributes to the building trust as well.

The Internet users increased from one million (5% of the population) in 2001 to 11.2 million (41%) in 2010 [30]. “Broadband subscriptions have grown from 64 thousand in 2005 to over 3.2 million at the end of Q3 2010.” [30] However, broadband subscriptions remain very low compared to the developed nations. Until 2011, the number of Internet Service Providers (ISPs) has reached only 56 [30]. However, most of the services provided by these companies are mainly from the main cities. Small cities and villages are still not well served by Internet connections or have no Internet connections at all. Prices also need to be reviewed to make it attractive for most of the households to connect to the Internet. The role of building strong Internet infrastructure is very important for the digital economy. MCIT is well placed to play active role in this regard.

Offering trustworthy and secure online payment options is a very important factor. In the West, using credit cards to pay is the most popular method to conduct online purchases. In Saudi Arabia, however, many consumers are reluctant to use credit cards, both because of a lack of trust and because some consumers are culturally averse to carrying out transactions linked with conventional interest rates. Thus, providing alternative, trustworthy and easy-to-use payment options is a critical need for the industry. Possible solutions include debit cards and payment systems such as PayPal. Another option is the electronic bill presentment and payment system which Saudi Arabia has developed for billers and payers who are resident in the country, called SADAD. In essence, the system facilitates data exchange between registered billers and the nation’s commercial banks, and relies on existing banking channels (such as Internet banking, telephone banking, ATM transactions, and even counter transactions) to allow bill payers to view and pay their bills via their banks [31]. Currently, SADAD is limited to 100 billers. This means only the biggest billers in the Saudi Arabia have access to this system. “This limits most Internet merchants to using credit cards, short code SMS, and prepaid cards as electronic payment methods. To address this limitation, SADAD is currently working on Biller Base Expansion, which will increase its biller options from around 100 to 20,000” [9]. So, cooperation between all involved government and industry is needed to provide various online payment options.

Until 2005, individuals in Saudi Arabia had no home addresses [24]; therefore, to receive mail, individuals had to subscribe to have a mailbox in the post office [5]. In 2005, the postal delivery to homes and buildings was approved by Saudi Post [5, 24]. ‘Wasel’ is a mail service enabling Saudi residents to receive mail at their residence free of charge. Another service called “Wasel Special” has charges for sending mail from a home mailbox, delivery with e-stamp, temporary safe-keeping, temporary forwarding, P.O. Box transfer and e-mail notification. However, this service does not cover all Saudi cities, only the main ones [32]. More than half a million people subscribe to the ‘Wasel’ service representing almost 2% of the population who own a mailbox. While this service is still relatively new, Saudi Arabia is very late in providing individual addresses. Problems with adopting this service might be the citizens’ lack of awareness of this service or the importance of mailboxes, their ignorance of the direct addresses for their houses with numbers and streets names, or their mistrust of receiving their mail in this way. Consequently, more efforts are needed to motivate and educate citizens about owning house mailboxes and help them solve the related problems.

As the awareness of e-commerce in Saudi Arabia is low compared to the developed nations, government bodies (i.e. Ministry of Media, Ministry of Education and Ministry of Higher Education) introduce the e-commerce educational programs. These educational programs are not only for people bust also for businesses. Chambers of commerce can play active role to introduce educational programs for businesses as Singapore do [33]. These programs may include provision of sample e-commerce software to trial.

5. Conclusion

This paper presented findings from a series of studies researching the diffusion and adoption of online retailing in Saudi Arabia. So far, the outcomes achieved in e-commerce development in Saudi Arabia are not reaching the expectations of a country with the importance and weight in the global economy like Saudi Arabia. Governments do have an important role to play in e-commerce. Saudi government leadership to promote e-commerce development seems to be sorely missing. Accordingly new research has been conducted to provide justifications for why and how the Saudi government should be involved in the diffusion of online retailing. The paper proposed a model in order to promote an attractive e-commerce environment in Saudi Arabia. The model has five important elements as classified with high priority from the previous research stage findings. These elements involve: introducing e-commerce law, offering trustworthy and secure online payment options, introducing e-commerce educational programs, enhancing the national delivery system, and developing strong ICT infrastructure.

References

[1] Laudon, KC., Traver, CG (2007). E-commerce: business, technology, society, 3 edn, Pearson Prentice Hall, New Jersey.

[2] Rogers, EM. (2003). Diffusion of Innovations, Fifth edn, Simon & Schuster, New York.

[3] Saudi Ministry of Commerce (2001). E-commerce in the kingdom: Breakthrough for the future, Riyadh.

[4] U.S. Department of Commerce. (2008). U.S. & Foreign Commercial Service and U.S. Department of State.

[5] Alfuraih, S. (2008). E-commerce and E-commerce Fraud in Saudi Arabia: A Case Study, *In*: 2nd International Conference on Information Security and Assurance Busan, Korea, p. 176-180.

[6] Albadr, BH. (2003) . E-commerce, *Science and Technology*, (65) 14-19.

[7] Aladwani, AM. (2003). Key Internet characteristics and e-commerce issues in Arab countries, *Information and Management*, 16 (1) 9-20.

[8] CITC (Communications and Information Technology Commission 2007). Internet Usage Study in the Kingdom of Saudi Arabia, Communications and Information Technology Commission: Riyadh.

[9] CITC (Communications and Information Technology Commission 2010). IT Report 2010 On the Internet Ecosystem in Saudi Arabia, Communications and Information Technology Commission: Riyadh.

[10] AlGhamdi, R & Drew, S. (2011). Seven Key Drivers to Online Retailing in KSA, *In:* P Kommers & P Isaías (eds), *Proceedings of the IADIS International* Conference on e-Society 2011, Avila, Spain, 237-244.

[11] AlGhamdi, R., Drew, S., Alfaraj, O. (2011). Issues influencing Saudi customers' decisions to purchase from online retailers in the KSA : a qualitative analysis, *European Journal of Scientific Research*, 55 (4) 22-35.

[12] AlGhamdi, R., Drew, S., Al-Ghaith, W. (2011). Factors Influencing Retailers in Saudi Arabia to Adoption of Online Sales Systems: a qualitative analysis, *Electronic Journal of Information System in Developing Countries* (EJISDC), 47 (7) 1-23.

[13] AlGhamdi, R., Nguyen, A., Nguyen, J., Drew, S. (2011). Factors Influencing Saudi Customers Decisions to Purchase from Online Retailers in Saudi Arabia: A Quantitative Analysis , *In*: P Kommers & P Isaías (eds), IADIS International Conference e-Commerce 2011, Roma, Italy, 153-161

[14] AlGhamdi, R., Nguyen, A, Nguyen, J & Drew, S. (in press). Factors Influencing e-commerce Adoption by Retailers in Saudi Arabia: A quantitative analysis, *International Journal of Electronic Commerce Studies* (IJECS).

[15] AlGhamdi, R., Drew, S., Alkhalaf, S. (2011). Government Initiatives: The Missing Key for E-commerce Growth in KSA', in ICCBS 2011 (International Conference on e-Commerce, e-Business and e-Service), Paris, France, 77, 772-775.

[16] AMEinfo (2008). Saudi Arabia's retail sector is undergoing a major expansion. [cited 2010 20 Oct], Available from: http://www.ameinfo.com/ar-107430.html.

[17] ACG (Alpen Capital Group 2009). GCC Retail Industry.Alpen Capital Group. 47.

[18] Kearney, AT. (2010). Expanding Opportunities for Global Retailers: The 2010 Global Retail Development Index.

[19] Habtoor, A. (2011a). Vision to Employ million Saudis in the Retail Sector by 2020, Aleqtissadiya Newspaper, viewed 21 May 2011, http://www.aleqt.com/2011/03/08/article_512287.html.

[20] Habtoor, A. (2011b), The retail sector: 600 thousand untapped jobs and 160 billion in the hands of foreign workers, Aleqtissadiya Newspaper, viewed 18 May 2011, http://www.aleqt.com/2011/01/15/article_491563.html .

[21] EuroMonitor International (2011). Retailing in Saudi Arabia. [cited 2011 22 May], Available from: http://www.euromonitor.com/retailing-in-saudi-arabia/report.

[22] AAG (Arab Advisor Group 2011). Saudi Arabia's Internet users spent around US$ 3 billion in 2010 on buying products and services through e-commerce. [cited 2011 1 April]; Available from: http://www.arabadvisors.com/Pressers/presser-170211.htm.

[23] Al-Solbi, A., Mayhew, PJ. (2005). Measuring E-Readiness Assessment in Saudi Organisations Preliminary Results From A Survey Study, *In:* I Kushchu & MH Kuscu (eds), From e-government to m-government, Mobile Government Consortium International LLC, Brighton, UK, 467-475.

[24] Saudi Post. Saudi Post (2008). Establishment and Development. [cited 2009 21 Nov]. Available from: http://www.sp.com.sa/Arabic/SaudiPost/aboutus/Pages/establishmentanddevelopment.aspx.

[25] Creswell, J. W. (2008). *M*ixed Methods Designs, *In*: Educational Research: Planning, Conducting, And Evaluating Quantitative And Qualitative Research., Pearson Education: New Jersey.551-575.

[26] Morse, J. M. (2003). Principles of Mixed Methods and Multimethod Research, *In*: Handbook of Mixed Methods in Social and Behavioral Research, A. Tashakkori and C. Teddlie, Editors, Sage Publications: Thousand Oaks, California. 189-208.

[27] Kamaruzaman, K. N., Handrich Y. M., Sullivan F. (2010). e-Commerce Adoption in Malaysia: Trends, Issues and Opportunities, in ICT Strategic Review 2010/11 E-commerce for Global Reach R. Ramasamy and S. Ng, Editors, PIKOM (The National ICT Association of Malaysia): Putrajaya, Malaysia. 89-134.

[28] CDSI (Central Department of Statistics & Information 2010). Preliminary Results of General Census of Population and Housing 2010. [cited 2011 22 May]; Available from: http://www.cdsi.gov.sa/index.php?option=com_content&view=article&id=88.

[29] Alabboc, Q. (2009). *Saudi Arabia established team work to reduce the number of foreign labor*. [cited 2011 22 May]; Available from: http://www.arabianbusiness.com/arabic/561036.

[30] MCIT (Saudi Ministry of Communication and Information Technology 2010). *ICT indicators in K.S.A (Q3-2010)*. [cited 2011 1 April]; Available from: http://www.mcit.gov.sa/english/Development/SectorIndices/.

[31] SADAD, (2004), *About SADAD Payment System*. [cited 2010 10 Oct]; Available from: http://www.sadad.com/English/SADAD+SERVICES/AboutSADAD/.

[32] Saudi Post (2010), *Production and Services*. [cited 2010 14 Dec]; Available from: http://www.sp.com.sa/English/SaudiPost/ProductsServices/Pages/Wasel1.aspx.

[33] Chan, B., Al-Hawamdeh, S. (2002). *The development of e-commerce in Singapore: The impact of government initiatives. Business Process Management Journal*, 8 (3) 278-288.

[34] U.S. Census Bureau (2010). The 2008 E-commerce multi-sector, E-Stats, U.S. Department of Commerce.

[35] Centre for Retail Research 2010, *Online Retailing: Britan and Europe*, viewed 16 May 2011,http://www.retailresearch.org/onlineretailing.php.

[36] Dedrick, J., Kraemer, KL, King, JL., Lyytinen, K. (2006). The United States: Adaptive Integration versus the Silicon Valley Model , *In*: KL Kraemer, J Dedrick, N Melville & K Zhu (eds), *Global e-commerce: impacts of national environment and policy*, Cambridge Univ Press, New York, 62-107.

[37] Dinlersoz, EM., Hernández-Murillo, R. (2005). The diffusion of electronic business in the United States, *Federal Reserve Bank of St. Louis Review*.

[38] Nair, M. (2010). The E-commerce Ecology: Leapfrogging Strategies for Malaysia, *In* R Ramasamy & S Ng (eds), *ICT Strategic Review 2010/11 E-commerce for Global Reach* PIKOM (The National ICT Association of Malaysia), Putrajaya, Malaysia, 193-211.

[39] Global Technology Forum, (2007). *South Korea: Overview of e-commerce*, Economist Intelligence Unit, viewed 1 Jun 2011,http://www.ebusinessforum.com/index.asp?layout=rich_story&doc_id=11157&title=South+Korea%3A+Overview ofe-commerce&categoryid=30&channelid=4.

[40] Kamaruzaman, KN., Handrich, YM., Sullivan, F. (2010). E-Commerce Adoption in Malaysia: Trends, Issues and Opportunities, in Ramasamy, R., Ng, S. (eds), *ICT Strategic Review 2010/11 E-commerce for Global Reach* PIKOM (The National ICT Association of Malaysia), Putrajaya, Malaysia, 89-134.

[41] Nielsen, (2005). *627 million people shopping online worldwide, 325 million made purchases in the last month* Nielsen Australia, viewed 13 May 2011, http://au.nielsen.com/news/20051024.shtml.

[42] ACMA (Australian Communications and Media Authority 2010), *Australia in the Digital Economy: Consumer engagement in e-commerce*, Australian Communications and Media Authority, Canberra.

[43] Access Economics Pty Limited (2010). *Household E-Commerce Activity and Trends in Australia*, Australian Department of Broadband, Communications and the Digital Economy.

[44] Nielsen, (2008). *Four in five Australian internet users now shopping online*, Nielsen Australia, Sydney.

[45] Kattera, P. (2009). *Online retail in Australia: A quick history & reasons behind its slow growth*, viewed 10 May 2011, http://blog.kattera.com/online-retail-in-australia-a-quick-history-an.

[46] Trewern, D. (2009). *Why Aussie E-Trailers Need To Pick Up The Pace*, DTDigita, viewed 11 May 2011, http://dtdigital.com.au/insight/post/why-aussie-e-trailers-need-to-pick-up-the-pace_38/.

[47] Forrester Research Inc (2010). *The Business Of Australian Online Retailers*, PayPal Australia.

[48] Sexton, J. (2010). *Japan sets style for online buying*, The Sunday Telegraph Newspaper, viewed 11 May 2011, http://www.dailytelegraph.com.au/japan-sets-style-for-online-buying/story-fn6bmfwf-1225976116046.

[49] DBCDE (Australian Department of Broadband. Communication and the Digital Economy 2011a), *Background to the online retail forum*, Department of Broadband, Communication and the Digital Economy, viewed 14 May 2011, http://www.dbcde.gov.au/digital_economy/online_retail_forum/background_to_the_online_retail_forum.

[50] DBCDE (Australian Department of Broadband. Communication and the Digital Economy 2011b), *Online retail forum*, Department of Broadband, Communication and the Digital Economy, viewed 14 May 2011, http://www.dbcde.gov.au/digital_economy/online_retail_forum.

[51] Shorten, B. (2010).*The Future of Australian Retail*, viewed 14 May 2011, http://www.treasurer.gov.au/DisplayDocs.aspx?doc=pressreleases/2010/028.htm&pageID=003&min=brs&Year=& DocType.

[52] AusIndustry, (2009). *Small Business Online (SBO)*, An Australian Govenrment Initiative AusIndustry viewed 14 May 2011, http://www.ausindustry.gov.au/SmallBusiness/SmallBusinessOnline/Pages/SmallBusinessOnline.aspx.

[53] Kraemer, KL., Dedrick, J., Melville, N. (2006). Globalization and National Diversity: E-Commerce Diffusion and Impacts across Nations, *In*: KL Kraemer, J Dedrick, N Melville & K Zhu (eds), *Global e-commerce: impacts of national environment and policy*, Cambridge Univ Press, New York, 13-61.