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Supporting Industries as a Main Driving Force for E-commerce Adoption in Saudi Arabia

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Abstract: Using a qualitative approach, this study examines e-Commerce adoption in the Saudi tourism industry. The research concerns factors that impact of tourism firms moving their sales online. The study's findings suggest a relationship between the competency of Saudi's ICT supporting industry, and the level of e-Commerce integration in the tourism industry. Further, assumptions of global e-Commerce regarding the acceptance of universal payment systems and the intention of firms in pursuing a strategy of e-Commerce may not be valid for some developing countries. The conclusion from this study is that assumptions underpinning global e-Commerce are based on the practices of developed economies and are not yet sufficiently flexible to accommodate elements of difference, as described by this Saudi study.

1 INTRODUCTION

Communications are the lifeblood of business, and the last decade saw widespread adoption of interlinking technologies as governments and industry explored concepts in networking the previous stand-alone operations, (Laube and Zammuto, 2003). The advent of internet browsers and communication infrastructure facilitated the rise of electronic commerce transactions (Turban et al., 2008). e-Commerce is a constituent of the wider term e-business; the former referring to trading products or services via the internet, whilst the latter comprises all communications, collaboration and transactions between parties through the internet (Laudon and Traver, 2009). Thus e-commerce may be regarded as a commercial conceptualisation that exploits the internet and its supporting electronic infrastructure (Shareef et al., 2009).

Online retailing is now an attractive and cost-effective means for start-ups or smaller firms to access new customers (Malhotra and Malhotra, 2006). Internet trading allows 24-hour access of products or services, eliminating communications delays and leading to higher business transaction speed (Laudon and Traver, 2009, Schneider, 2008). Productivity with e-Commerce is enhanced for all organisations, private and public sectors, through maximising sales or public services, and minimising costs (Chaffey, 2002).

Not all businesses adopt e-Commerce; some avoid it completely whilst others use part of the infrastructure and, with time, increase their IT-based functionality (McKay and Marshall, 2004). Theorists identify behaviours that lead to adoption or refusal of new technology, (Davis, 1989; Venkatesh et al., 2003). Findings identify organisations that rely on technology as the acceptance driver, whilst others consider organisation or external technology readiness as the acceptance motivation factor or factors (Molla and Licker, 2005; Selim, 2008).

2 LITERATURE REVIEW

Researchers explore the acceptance rate for new technologies through theoretical modelling. Innovation diffusion theory is routinely used in empirical studies to provide a structure for testing technology adoption variables (Marez and Verleye, 2004; Troshani and Doolin, 2007).

In the theory of reasoned action, an individual's action is determined by the behavioural intention to act, (Ajzen and Fishbein, 1980). The theory of reasoned action posits that beliefs and evaluations determine attitude, normative beliefs and motivation to the subjective norm. It was later used in the development of the Technology Acceptance Model

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(TAM) (Legris, Ingham and Collerette, 2003). TAM posits that perceived ease of use and perceived usefulness are important factors in explaining ICT systems' usage; that is, the degree to which a person believes that using a technology will save effort. Empirical studies find that perceived usefulness, not perceived ease of use, is positively related to behavioural intentions to use an IS or ICT application (Chau, 2002; Hu et al., 1999). Venkatesh et al., (2003) formulated the unified theory of acceptance and use of technology (UTAUT).

Researchers subsequently successfully tested the unified model (Shaobo and Gang, 2008; Wills, El-Gayar and Bennett, 2008). However, scholars find that technology adoption theories and models such as TAM should focus on individuals' behaviour, not the behaviour of an entire organisation (Liao et al., 2008; Suebsin and Gerdsri, 2009).

The tourism industry comprises several interrelated sub-sectors such as travel agents, airlines, hotels, car rental agencies and tour providers. The firms of these sub-sectors are bound to accept change through market pressures such as competition, customer demand and technological change. Researchers consider industry factors and environmental conditions as the drivers for change, not necessarily the behaviours, norms, and beliefs that come from individual, organisational or national culture. There is a continuum of industry-based factors, such as strategic positioning, supply chain logistics and information-sharing, that motivate the organisations to respond to technological change (Molla and Licker, 2005; Piris, Fitzgerald and Serrano, 2004). An extended e-Commerce adoption model proposed by Molla and Licker (ibid.) considers the relevant contextual and organisational factors that can affect e-Commerce adoption in developing countries. The perceived e-readiness model (PERM) comprises two constructs, first, perceived organisational e-readiness (POER), and second, perceived external e-readiness (PEER). Each construct includes factors that impact the organisation's initial e-Commerce adoption. The study finds that the majority of these factors provide meaningful predictors of e-Commerce adoption.

3 STUDY CONTEXT

This study examines a global phenomenon of trade and technology from a standpoint of a commercial environment which is steeped in its own traditions and thus very different assumptions emerge. The contextual discussion places this research in Saudi Arabia undergoing great change, and draws from this aspect of Saudi practices that may affect the outcomes of the research.

Of primary importance to Saudi Arabia is an effective ICT infrastructure and the Ministry of Communications and Information Technology (MCIT) role is to develop the country's ICT services for economic and social development (MCIT 2007). E-readiness, as the Economist Intelligence Unit defines it, is "the measure of a country's ability to leverage digital channels for communication, commerce and government in order to further economic and social development" (EIU 2009). Saudi Arabia is ranked 46th from a total of 70 countries, having an e-readiness level of 5.23 from a maximum of 10, considered a reasonable acceptance of new technologies (Aldogily, 2009; Almoteri, 2009).

Saudi Arabia accounts for some 40 per cent of ICT spending in the Gulf region (BMI, 2009). The country is therefore a maturing market for ICT; however, it has a fast-growing population and demand for new technological solutions. Liberalisation and competition in the telecom sector will increase domestic ownership of computers and smart phones.

There are several financial organisations, including Alrajhi Bank and Alahli National Bank, that offer online payment systems through debit cards and the interest-bearing Visa and Master Cards for those willing to use them for international or non-Arabic transactions (Alriyadh, 2007).

Islam provides the traditional reason for visitors to come to Saudi Arabia for pilgrimage. The pilgrimage involves bookings for travel, food and lodging. Further, there are places of antiquity and religious devotion in this vast area, and pilgrims may take the opportunity to visit traditional sites whilst they are in Saudi Arabia.

Saudi Arabia is a stable centre for religious, traditional and adventure visitors. Key tourist areas include coastal areas, areas of natural beauty and historical sites. It annually hosts some sixteen million domestic tourists and seven million expatriate tourists, besides the five million pilgrims (Seddon and Khoja, 2003). Further, domestic tourism is also a government target, as three-quarters (76%) of Saudis holiday outside the country, spending about $US6.5 billion each year (Middle East Business Intelligence 2001).

Globally, tourism continues to grow and the travel industry is swift to adopt technology to facilitate growth (Ahmed, Zairi and Alwabel, 2006). This impacts the Saudi tourism industry, which must adapt to meet the competition from a global tourism industry that is effectively online and will absorb their clientele over time.

4 RESEARCH METHODOLOGY

This study tested the principles in the UTAUT model and the related organisational and external factors from the perceived e-readiness model. These theories provide an integrated framework for identifying factors concerning tourism organisations' adoption of e-Commerce for marketing. This research used a qualitative research method to understand the beliefs and attitudes of leaders of Saudi tourism organisations regarding their adoption of e-Commerce (Neuman, 2003).

Participants to the study were selected from the tourism. The interview questions addressed adoption of e-Commerce, whether the organisation was prepared to adopt internet trading, and the opportunities and issues that the interviewee envisaged regarding e-Commerce for Saudi Arabia.

Jeddah is the tourism gateway for Saudi Arabia, and the city's travel industry. Twenty firms were selected across the range of the travel industry. Industrial sectors were reflected in participant firms trading in accommodation, air travel, events and attractions, and there were five firms offering some religious travel and four travel agents. The data were collected by semi-structured interviews to capture the practices, views and intentions of tourism industry leaders in Saudi Arabia regarding e-Commerce. Information collected from the study participants was coded for common themes for comparison with the literature. Using interpretive analysis, the data were examined for a general sense of how e-Commerce is used or accepted in Saudi tourism organisation based on the research question. Each quote was classified under two main categories: emergent or preset category.

5 DISCUSSION

The overall indicators for e-Commerce usage in the Saudi tourism industry were that, in common with national retailers, the majority of participants (10) were not fully engaged in e-Commerce. There was some use of websites for bookings, and ICT was used for business-to-business transactions. An airline representative was the sole adopter of e-Commerce to consumers. For tourism organisations contemplating moving business online, issues regarding ICT infrastructure and the standard of local providers were a priority. Respondents to the study said that secure online financial support from the local banks was not sufficiently robust to encourage full online funds processing; other comments were that regional web developers did not understand the travel industry and that they were indifferent to sales promotion opportunities; the industry representatives were not convinced of the capacity and commitment of these firms. For web design, interviewees preferred freelance or global providers.

Substandard regional ICT infrastructure impacted the tourism industry and its ability to compete in the online commercial environment. Organisations could not prosper without support, and this was the main argument of the participants. Participants said that they did not see progressive ICT organisations within the country that could guide them to e-Commerce innovation and infrastructure; nor could they envisage support for even lesser technologies.

Whilst tourism firms could access global e-Commerce support, the largest travel contingent, the pilgrims of *Hajj* and *Umrah*, is complex in its logistics and process. Although parts of the Hajj package were conducive to online sales, such as air transport and to a certain extent accommodation, pilgrims required a full religious and travel service and this involved both the public and private sector working in concert to deliver to millions of religious travellers from many countries.

The absence of dependable local e-Commerce providers does not prevent Saudi tourism firms seeking innovation. Thus, travel agencies and tourism organisations use international providers. One participant, P4, had experience with several Saudi travel agencies, and was knowledgeable about the technology limitations in the country He formed a partnership with an Indian provider:

Furthermore, the web developers, programmers and designers who work for the local firms are expatriates. As the majority are not fluent in Arabic, the resultant websites are not sufficiently attractive to induce customers to buy. To surmount this issue, P5 said that his corporation had developed its online booking website in Canada; however, those who produced the website had an Arabic background.

Whilst the larger firms of some participants were knowledgeable in global outsourcing for their ICT needs, smaller organisations may not be able to do so. There is thus an opportunity for Saudi entrepreneurs to access tailored ICT capability from global providers and distribute it to the local market. P11 supported this initiative, questioning the lack of interest in international firms to access the large available Saudi market.

Other interviewees mentioned the high cost of local ICT providers in implementing full e-Commerce successfully. However, P6 suggested that Saudi organisations may bypass local ICT issues by using common facilities, mentioning an international online booking service as an example. An Arab website could be available to local tourism organisations to upload their packages and prices. The main barrier against a common online Saudi booking provider such as P6 suggests is the lack of information produced by the industry. The participants noted that any booking portal cannot operate without reliable information and performance guarantees. P4 commented on the success of international online booking providers, noting that the depth of information from their global networks is the driver of their success. P2 said that his organisation's adoption of virtual marketing had to be superior to that available in the local and even the global market. Participants frequently stated that it is not enough to engage an e-Commerce provider, if such were available, but that the provider had to understand the tourism industry to the extent that it could be marketed well online.

One other issue was the selection of the outsourcing ICT sector. Some participants preferred the generic, off-the-shelf solution, as their management considered that this form of e-Commerce solution minimised risk of failure and was cost-efficient. Other participants preferred customised systems, or purpose-built solutions. The third group preferred proven freelancers, as they were disinclined to approach the industry leaders. Further, as noted, the last group used global web developers quite successfully. For all groups, participants were not confident that their providers could take their online presence to the next step for e-Commerce.

From the hotel management's point of view, successful online booking websites are now well-developed and stable, so that they do not need further booking enhancements. P3's organisation, a chain of Saudi hotels, had tested two customised booking systems offered by local providers. Neither was satisfactory and a global provider was later appointed to implement the service. The interviewee said that the disappointing experience of the local providers and the greater complexity of the e-Commerce applications would lead preferences to global providers for their proven e-Commerce systems.

e-Commerce presents challenges for tourism industry members who prefer not to depend on intermediaries, or wholesalers, to sell their services. However, to sell directly to consumers some companies prefer to work with freelancers who can develop a specialised system to meet client needs. Frequently, the decision to use freelancers is based on competency and value for money. The general opinion of the participants, and thus the Saudi tourism industry, was not complimentary towards their local ITC providers.

Participant P3 was the hotel chain representative and, as noted, accepted a booking system by a local ICT provider for testing. The provider installed the demonstration system for staff to load and trial; however, the test was disappointing due to the transactions speed.

The competency standard of the local ICT industry support is perhaps the greatest barrier to tourism development for Saudi Arabia. It is not at issue whether the industry should be online – all tourism members must use ICT to communicate throughout the industry, even if they cannot fully reach their customers through the internet. It is not sufficient for travel agencies to prefer shopfront sites; the proliferation of travel-related experiences in Saudi Arabia alone means that the most expert travel agents cannot access the information necessary to serve a client's interests without ICT, even if it is the most basic of technology, a telephone.

Participants commented upon the cost of the ICT providers. As noted, there was reluctance by the sophisticated participants to employ local ICT support firms due to a perceived lack of competence; however, cost for these services was a separate issue. Participants linked the size of their business to their ability to justify the outlay for elaborate websites and online services. Small and medium sized organisations were not able to afford high cost e-Commerce solutions.

However, an online presence could reach more potential customers through website portals, that is, a tourism organisation could join a travel provider to market their services. This reduced the cost of either purchasing ICT services or establishing a unique website. P6's organisation used an online portal, Yosr, which assists many Hajj providers to organise their client travel data from pilgrim registration to the finish of the Hajj rituals. The annual cost of the portal is reasonable because development costs are shared by the Hajj travel providers. Participants also linked quality with cost, as higher quality deserves higher value.

To adopt e-Commerce, online payment is another issue for tourism organisations in Saudi Arabia. All participants mentioned the importance of the payment channels on the internet.

There were statements to the effect that the local banking institutes do not allow payment providers to be connected with e-Commerce websites. Participant P4 argued that there can be no e-Commerce without online payment, and these services were not available within the Saudi financial industry. The interviewee noted the perceived risk of online financial transactions with global payment engines.

The participant illustrated this by referring to a colleague. That person started the business via an online booking site and contracted with a foreign online payment provider. The business prospered for the first few months, and then the payment provider was asked for the resultant funds. The provider had disappeared and the matter amounted to fraud. Similar anecdotes affect the attitude of business owners toward online commerce who return to the local financial industry for assistance.

P2 concurred in this view of global finance managers regarding online services. Regulatory and logistical restrictions on funds flow between tourism industry stakeholders: customers, banks and the tourism industry are further barriers to e-Commerce. There was a suggestion that a local bank offers a link to online payment; however, it was not well publicised.

Although some participants knew about Saudi online payment providers, there was evidence of perhaps limited availability of payment online available from local providers. This is requisite for e-Commerce. As an example, P5 could not envisage a problem linking to Saudi online payment providers, to the extent that his firm was moving entirely online, with no other transaction channel.

Finally, P10, the airline representative, praised a Saudi provider of online payment, Sadad. Sadad was a recent online payment option available to citizens to facilitate all their financial transactions, including bills, fees and online tickets, as e-Commerce from their home computers or mobile devices, or ATM machines. To date, it is difficult for all tourism firms to utilise two Saudi banks and *Sadad*; these organisations do not promote their services to all tourism organisations. This makes the adoption of e-Commerce difficult for these organisations.

6 CONCLUSIONS

From the analysis, the advantages of e-Commerce are evident to Saudi tourism industry firms. There are several factors affecting e-Commerce adoption; however the quality of ICT supporting industries were of the most concern. The tourism industry needs efficient support from ICT providers to practice e-Commerce. Whilst the tourism industry professed indifference to the global or local ownership nature of the ICT providers, the findings were that the local providers present a lesser service quality than the international firms. Further, although local ICT providers, particularly website developers, were considered substandard, their costs were significantly higher than that of the global market for a particular service. Cost of e-Commerce implementation was an issue for the tourism industry, which was resisting government encouragement to move Hajj and Umrah bookings online. None of the tourism organisations used global payment methods which concerned potential interest payments, as these were contraindicated given the nature of much of their business.

The conclusion from this study is that assumptions underpinning global e-Commerce are based on the practices of developed economies and are not yet sufficiently flexible to accommodate elements of difference, as described by this Saudi study. Global assumptions of acceptable payment systems, the relative strength of the ICT industry to support e-Commerce, and firms' intentions regarding e-Commerce are not necessarily valid for developing countries.

Whilst there are social and legal issues regarding Saudi online trading, findings show that the state of the ICT industry in Saudi Arabia significantly impacts e-Commerce for the nation. Thus the necessity of managing up to four million people for Hajj requires a reliable and competent ICT support industry. This study can initiate further research in the strength of the ICT support industry and other factors concerning e-Commerce for developing countries.

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