

DIGITAL BUSINESS ADOPTION AND CUSTOMER SEGMENTATION: AN EXPLORATORY STUDY OF EXPATRIATE COMMUNITY IN SAUDI ARABIA

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ABSTRACT. *Digital business has generated a new marketplace where customer segments, intermediaries and destination sites have a complex interplay. To optimally benefit from these opportunities, organizations need to devise a focused digital business strategy considering these stakeholders. Digital business adoption involves many cultural and social implications, which makes appropriation of business portals more challenging. These challenges compound in societies having heterogeneous population resulting in social and cultural diversity. In this exploratory study, we investigate the challenges and issues faced by expatriates in Saudi Arabia in adopting digital business applications. These findings will help business organizations, technology designers and policy makers to better design these portals and improve their acceptance in expatriate community.*

Keywords: Digital adoption, E-business, E-commerce, Digital technology, Website design, Customer segmentation

1. Introduction. Modern day technologies have revolutionized every aspect of life. Digital business has become an important pillar of modern-day economy [1]. Kasasbeh et al. highlight that there is a deep relationship among human resource management, digital business strategies and competitive advantage and it is required to have an effective synchronization among these factors to adopt a successful digital business strategy [2]. There are many studies on exploring the adoption of digital business by different business organizations [3-7]; however, technology adoption by business organizations is not uniform. Digital business adoption not only is a technical issue but also has many social and cultural implications [8-11]. As the world is transforming into a global village, the end users of digital business applications also come from diverse cultural backgrounds, posing challenges for technology designers to appropriate these systems according to their needs, so customer segmentation becomes vital. Expatriate migrant community is a segment of such users which differs from locals.

Expatriates have been a popular research theme for different scientific discourses but there has been less focus on the usage of technology by immigrant workers. Komito and Bates have investigated the usage of social media by immigrants in Ireland and found that new technologies enable migrants to connect with their social circle in their home countries [12]. Lingel et al. have analyzed the use of Facebook by transnational migrants in New York city and found that respondents highlighted the benefits of social media in maintaining connections with family [13]. Láštiová has explained that Facebook is mainly used for sharing emotions and its usage is limited in practical information sharing and community building by Slovak migrants living in United Kingdom [14]. Liu et al. have

carried out a study of Chinese migrants working in the manufacturing sector. They found that social media has become an important component of their leisure time and helps them temporarily avoid daily life pressure [15]. Allard has investigated the information usage and sharing practices of Filipino immigrants settling in Winnipeg, Canada. This study explains how these immigrants deal with different and contradictory information resources in their daily lives [16].

In the context of e-business adoption, Wu et al. conclude that better communication improves business performance, but e-procurement and online order tracking does not contribute much in it [17]. Fillis et al. describe that there are variations in e-business adoption across the globe and it is more challenging for small businesses to establish a successful e-business strategy [18]. Al-Somali et al. have investigated the adoption of e-banking in Saudi Arabia. They conclude that awareness of online banking and computing skills are important factors in fostering successful usage of e-banking [19]. Al-Ghaith et al. find perceived complexity as a major hindrance to the adoption of e-commerce in Saudi Arabia [20]. Eid has outlined that e-business loyalty is coupled with customer satisfaction in Saudi Arabia [21]. Al-Hudhaif and Alkubeyyer point out that the environmental factors play a significant role in the adoption of e-commerce [22].

Despite these studies in both scientific discourses, there is no comprehensive study discussing the e-business adoption by the migrant community. As a result, it is not explored that how the difference of language, culture, and social environment poses an additional challenge on the life of expatriates. So, in this paper, we are exploring the e-business adoption by expatriate community residing in the Kingdom of Saudi Arabia (KSA). The findings from this study will provide guidelines for stakeholders to better design e-business applications for natives and expatriates alike in KSA context.

The rest of the paper is structured as follows: Section 2 discusses the problem statement and research methodology followed by empirical results and a conclusion in Sections 3 and 4 respectively.

2. Problem Statement and Research Methodology. To enrich the body of knowledge, we focused on understanding the e-business adoption issues by expatriate communities. To get empirical evidence, we focused on migrant community in KSA which includes migrants from countries like Pakistan, India, Bangladesh, and Philippines. According to a survey in 2014, the number of expatriates in the country is more than 10 million which is 33% of the whole population [23]. The local culture in Saudi Arabia is different from their home countries and this may have an impact on e-business adoption, as they may encounter different social and cultural problems in the technology adoption.

Our exploratory research used the qualitative approach to get empirical data. A paper-based questionnaire was prepared which contained 16 close-ended questions along with demographic information of respondents. The questions were mainly related to usage of e-business, challenges and user experience in using e-business services in KSA. Data collection was carried out using snowball sampling technique by floating questionnaire among selected contacts in researcher's social network of the expatriate community in Dammam, KSA. The participation was on a voluntary basis and anonymous. The data was gathered during February 2018. We received a total of 35 responses and two responses were discarded being non-complaint to the completeness criteria. The data was analyzed, and the findings were driven by this analysis.

3. Main Results. This section is categorized into two subsections. The first subsection shows the demographic characteristics of respondents whereas the second subsection highlights the empirical results.

3.1. Demographic characteristics. If we look at the profile of our respondents, two of our respondents were less than 20 years, 16 belonged to the 20-30 age group, 10 were within 31-40 age group whereas 5 were more than 40 years old. In terms of gender, 7 respondents were male whereas 26 were female. If we look at the education level of respondents, 8 had a high school qualification, 2 had a higher diploma, 14 had a bachelor’s degree and 9 respondents had higher qualification than a bachelor. In terms of language proficiency, 14 were fluent in English, 10 having good command and 9 having average skills whereas, in Arabic, 20 had fluency in Arabic, 3 having good command, 5 having average skills and 5 having no knowledge of it. In terms of computer knowledge, 2 reported moderate knowledge, 12 had good knowledge and 19 had excellent computer skills. Out of 33 respondents, 8 were from Pakistan, 2 from Indian and 23 belonged to other countries.

3.2. E-business related questions. In our first question, we wanted to understand whether the respondents trust online shopping. 5 respondents described that they do not trust online shopping, whereas 20 respondents described that they have little trust and they remain watchful, 5 respondents were confident enough whereas only 3 were fully confident about online shopping. The results are shown in Figure 1. In our second question, we wanted to understand the frequency of online shopping. 14 respondents described that they use online shopping once a year and 13 described that they rarely use online shopping, 5 respondents described that they use online shopping once a month and 1 respondent mentioned that he uses online shopping once a week, as shown in Figure 2.

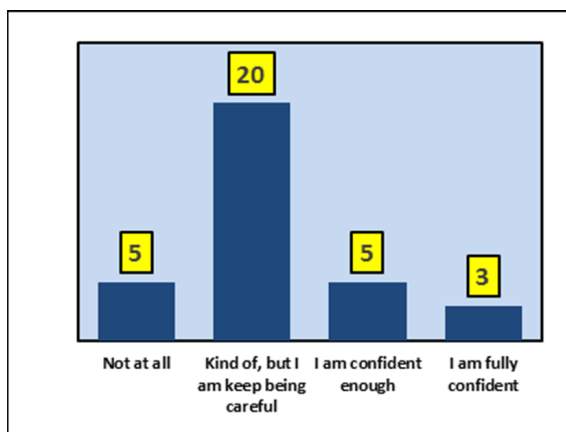


FIGURE 1. Trust on online shopping

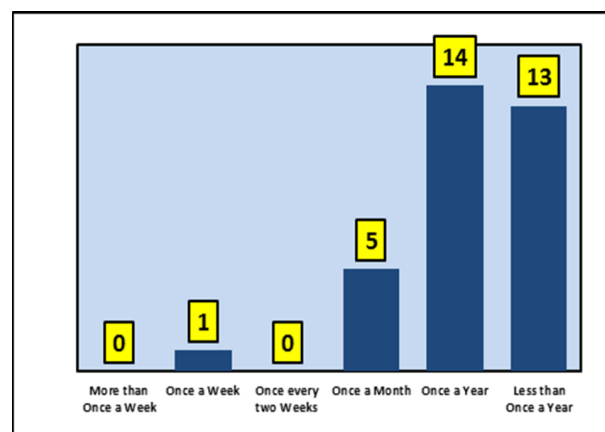


FIGURE 2. Frequency of on-line shopping

Furthermore, to understand the most critical factor among customers, for e-commerce adoption we asked customers to give a rating to delivery, payment security, price, quality, choice, and presentation. 18 respondents described the payment security as the critical factor. 15 respondents rated the quality of products as a critical factor. 8 respondents selected delivery and product variety as most critical factors whereas 5 mentioned price and 2 mentioned the presentation of the website as a critical factor, as shown in Figure 3. Furthermore, 21 respondents classified better offers as the main motivator for online buying. 11 respondents described the ease of product delivery and 1 respondent mentioned quality of the product, as shown in Figure 4.

It was found that 4 respondents strongly agreed and 11 agreed, 3 strongly disagreed and 7 disagreed to the fact that they do more online shopping in the KSA as compared to their home country. Eight respondents were undecided on this as shown in Figure 5. 21 respondents pointed lack of trust on Saudi E-Business portals as the biggest barrier for them, whereas some respondents mentioned lack of security, availability of IT tools and computer knowledge as a barrier, as shown in Figure 6.

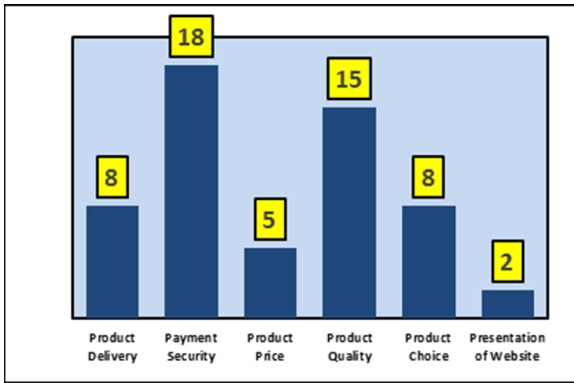


FIGURE 3. E-commerce acceptance

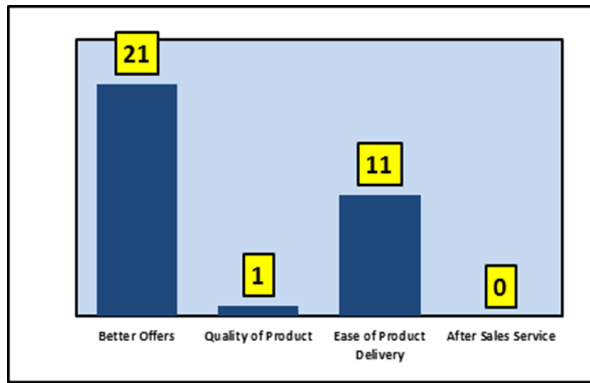


FIGURE 4. Motivation for on-line buying

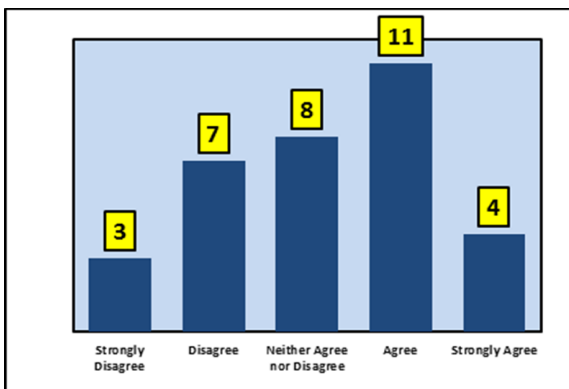


FIGURE 5. Country based comparison

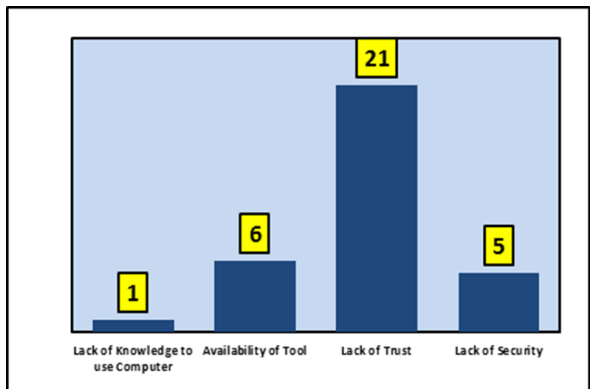


FIGURE 6. Barrier for e-business portals

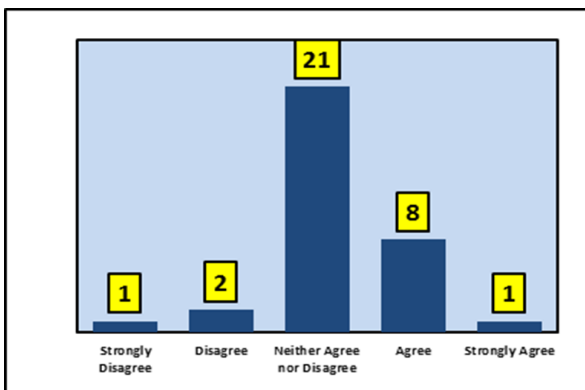


FIGURE 7. Sufficient safeguards

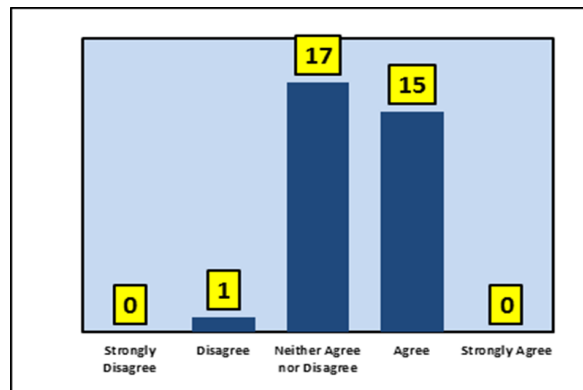


FIGURE 8. Confidentiality of information

It was interesting to find that most respondents were not confident whether the Saudi e-business portals have enough guards in place for secure transaction management, as shown in Figure 7. The same trend was observed regarding the perception of confidentiality and security of Saudi E-Business portals, as 17 respondents were undecided about the confidentiality and 16 respondents were undecided about the security, as shown in Figures 8 and 9 respectively. It was interesting to find that despite having lack of information about security and confidentiality measures of Saudi E-business portals people have some confidence in these portals. 16 respondents agreed that they have confidence that Saudi E-Business portals have adequate technological standards and tools to ensure data security from unauthorized access, as shown in Figure 10.

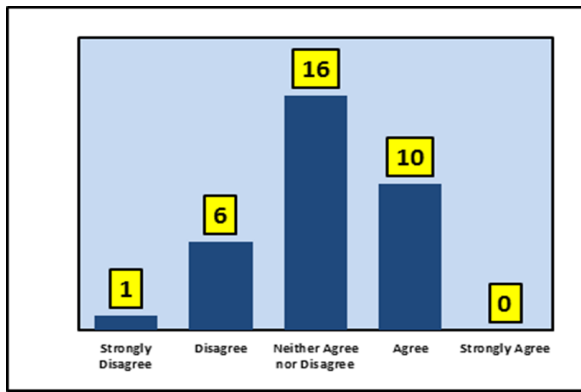


FIGURE 9. Security comparison

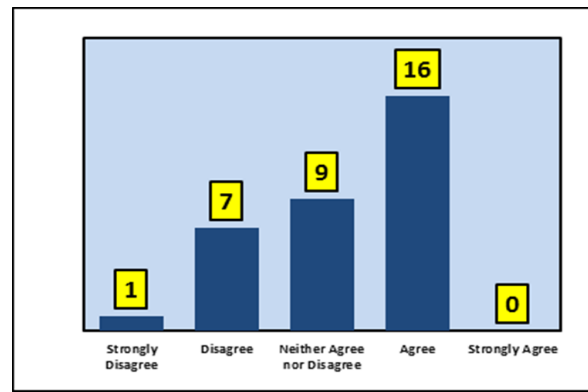


FIGURE 10. Customer confidence

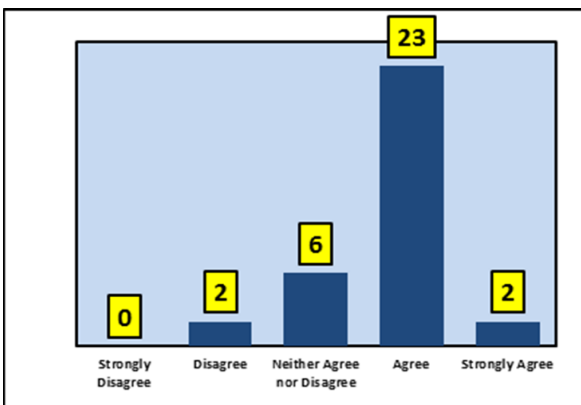


FIGURE 11. Interactivity of portals

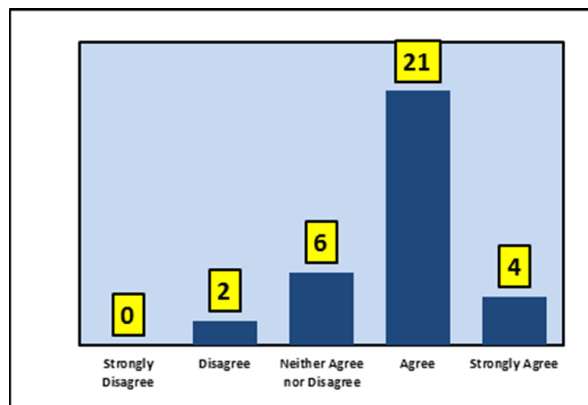


FIGURE 12. Clarity of instructions

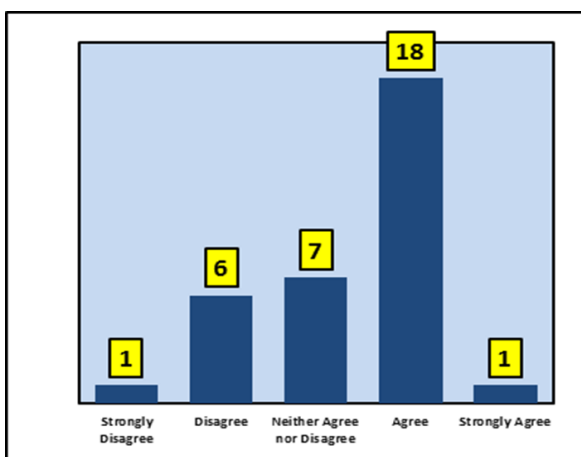


FIGURE 13. Efficient design

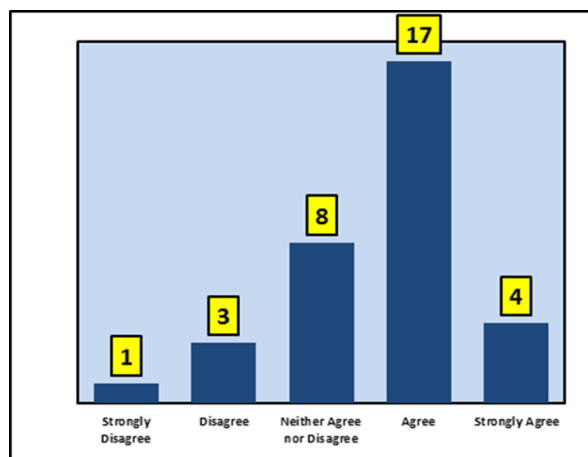


FIGURE 14. Cultural issues

Usability is another important aspect for the acceptability of any portal by users. Majority of the respondents were happy with the interactivity of these portals. 23 agreed and 2 strongly agreed that Saudi E-Business portals are interactive and attractive for their users, as shown in Figure 11. Similarly, 21 respondents agreed and 4 strongly agreed that these portals provide clear and easy to follow procedures, processes, and instructions as shown in Figure 12. Furthermore, 18 respondents agreed and 1 strongly agreed that Saudi Arabian business portals have an efficient design, as shown in Figure 13. 17 respondents agreed and 4 strongly agreed to the fact that they do not face any cultural issue in the design of these portals, as shown in Figure 14.

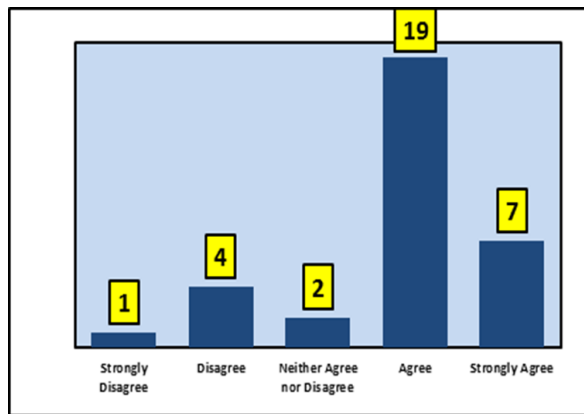


FIGURE 15. Increase in future online shopping

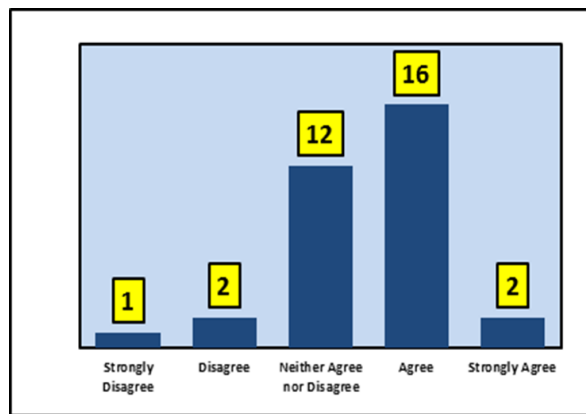


FIGURE 16. Recommending others to use online shopping

Furthermore, 7 respondents strongly agreed and 19 agreed that their online shopping activity is going to increase in the future, as shown in Figure 15. Furthermore, 2 strongly agreed and 16 agreed that they will recommend others to use online shopping in KSA.

E-Business has proved to be an enabler for different business organizations and especially with the advent of social commerce, and there are many growth opportunities for the organizations. However, to optimally benefit business, the organizations need to consider different strategies to enhance the adoption of electronic business among customers. The empirical data highlights some interesting facts. First, keeping in view the respondent's behavior there is a large scope for e-commerce growth in KSA. However, there are some interesting highlights to improve e-commerce adoption, especially in the expatriate community. A large majority of respondents do not have both Arabic and English skills, so it is mandatory for e-business portals to have bilingual support to foster more usage. The most important finding of the survey highlights that users are skeptical about the security of Saudi business portals. Information security has become the pivotal element of electronic systems and in our survey, users reported lack of trust on these portals and showed little confidence regarding confidentiality and security aspects of these portals. In this context, there is responsibility on stakeholders to bring policies to ensure users that their information is confidential. Expatriate not being native may be more sensitive regarding this because they may not be accustomed to legal and business policies in the country, so there is a need to assure expatriate users about security policies of business portals. Furthermore, usability is another key factor in the user acceptance of web portals [10,11]. In this study, it was highlighted that almost half of the respondents liked the navigation and design of business portals in KSA but there is a need to appropriate these portals as per users' needs to foster better usage. In this context, designers need to adopt human-centered design approaches to better design business portals to make a pleasant user experience on these business portals.

4. Conclusions. This exploratory study enriches the scientific discourse by providing e-business usage practices of the expatriate community in Saudi Arabia. The study highlights that most of these users have a lack of trust regarding security and confidentiality issues, so the business organizations need to chalk out strategies to better educate the end users to increase the trust level. The limited trust in e-business portals negatively affects the e-business adoption. Furthermore, it was also evident that there is a need to improve the usability aspect of e-business portals to improve the user experience. These results will help formulate guidelines to facilitate social, economic and cultural challenges faced by expat users of e-business portals in KSA. As a future work, follow up studies can be made in different geographical regions and then the results can be used to design

appropriate e-business technologies appropriated to the needs of all customer segments including the migrant community.

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