ADOPTION OF WIRELESS INTERNET PARKS: AN EMPIRICAL STUDY IN QATAR

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Abstract

This paper examines the adoption of free wireless internet parks (iPark) by Qatari citizens as means of accessing electronic services from public parks. The Qatar government has launched the iPark concept with a view of providing free internet access for all citizens while enjoying the outdoors. By offering free wireless Internet access, the Qatari government encourages its citizen's to actively participate in the global information society with a view of bridging the digital divide. Using a survey based study this research set out to examine the Qatari citizens' perceptions of the iPark initiative. Results of the survey showed that there is a positive level of relation between the independent variables, usefulness, ease of use, Internet safety, and Internet speed/response time and one dependent variable, intention to use the iPark in Qatar. The paper provides a discussion on the key findings, research implications, limitations, and future directions for the iPark initiative in Qatar.

Keywords: *Qatar, E-government, Technology acceptance model, Wireless Internet, iPark.*

1   INTRODUCTION

Since the development of the World Wide Web, significant attention has been focused on the adaptation of web-based technologies to the business environment, particularly in commercial sectors. During the 1990s, ICT has played an important role in incrementally changing and shifting traditional and bureaucratic government models into the current e-government model, where services are delivered according to customers' needs. Many countries have now transformed their traditional government processes into an e-enabled state where key services are delivered online using the ICT facilities offered by the Internet. Qatar is no exception; the government of Qatar has launched various initiatives under the banner of e-government to make public services more accessible to citizens and businesses. One such key initiative is the wireless-free-internet-park (iPark) concept. IPark initiative is a wireless Internet Park offered by the government of Qatar to its citizens and implemented in a number of public parks. The iPark service provides free connection to the citizens' ready devices such as, laptop and PDA's any time of day (24/7/365). The first such initiative was launched in March 2007 in the city of Doha in Qatar and it is the first of its kind in the Arabian region. This paper explores citizens' acceptance of the iPark concept as part of the e-government initiative in Qatar.

As in many countries, the national e-government focus in Qatar is to achieve the highest performance in executing governmental transactions electronically, through streamlined business processes and integrated information technology solutions (Qatar e-Government, 2007). Moreover, the Qatari government hopes that free internet access offered through the iPark concept will encourage more citizens to use e-government services and help bridge the digital divide. The socioeconomic structure in the State of Qatar is such that its population is made up largely of immigrant workers and professionals who are considered citizens of the country. Therefore, the largest proportion of recipients of e-government and early adopters of enabling technologies such as iPark are professional workers employed in numerous state, private, and multinational organizations. Consequently, the national e-government efforts are primarily focused towards these recipients (referred to as citizens).

The Internet while being the primary mode of access to e-government services has not been adapted globally at the same time or rate; some countries are considered as leaders (such as the US and Singapore) and others simply follow (i.e. the Gulf region). More recently, wireless technologies have become a useful means of internet connectivity and access to e-services. Wi-Fi for 'Wireless Fidelity' is a set of standards for wireless local area networks (WLAN) and provides wireless access to the Internet. Hotspots providing such access include Wi-Fi-cafes, where one needs to bring one's own wireless-enabled devices such as a notebook or PDA. These services may be free to customers only or to all. In fact, a hotspot need not be limited to a confined location; as illustrated in this paper, public parks can be used as open spaces to offer free wireless internet access to citizens (Al-Shafi and Weerakkody, 2007b).

In particular, Wi-Fi has opened up new opportunities for e-commerce and e-government by allowing citizens, consumers and businesses to build connectivity, any time and at any place. Moreover, it helps to increase accessibility of services and to expand social, government and business networks. The European Commission estimated Wi-Fi users to be around 125 million worldwide in the year 2006, and that there will be more than 500 million Wi-Fi users worldwide by 2009 (JiWire, 2006). However, wireless security remains the most important factor that challenges wireless internet hot spots. As wireless internet grows the security threat also increases rapidly and therefore the need to protect information becomes imperative (Peikari, 2003). The security risk remains largely from hackers, who are individuals, that access into the system without any authorization and for personal gain.

Given the above context, the rationale for this research is to gain a better understanding about the free wireless internet park "iPark" initiative in Qatar. Using a pilot survey questionnaire, this study aims to explore the intention of citizens to use iPark services in Qatar. This is achieved by examining their perceptions of 'ease of use' and 'usefulness' in relation to internet access in the iPark. To pursue this line of inquiry, this research uses the Technology Acceptance Model (TAM). TAM theorizes that an individual's behavioral intention to use a technology is determined by two factors: perceived usefulness and perceived ease of use (Gardner and Amoroso, 2004). TAM is one of the most influential research models in studies of determinants of IS/IT acceptance (Chau, 1996).

The paper is structured as follows. The next section offers a literature review of e-government followed by a theoretical background of TAM in section three. Thereafter, a brief overview is presented in section four of e-government and the iPark initiative in Qatar, followed by an outline of the research hypothesis in section five. The research method adopted for this study is then presented in section six, followed by an analysis of the survey results in section seven. Finally, the paper concludes by offering a discussion and an analysis of the key findings.

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2   E-GOVERNMENT LITERATURE

With the popularity of e-government growing, various researchers have offered different definitions to explain the concept (Seifert and Petersen, 2002; Holden et al., 2003; Jain, 2002). However, these definitions differ according to the varying e-government focus and are usually centered on technology, business, citizen, government, process, or a functional perspective. (Wassenaar, 2000; Wimmer and Traunmuller, 2000; Bonham *et al.,* 2001; Seifert and Petersen, 2002; Zhiyuan, 2002; Burn and Robins, 2003; and Irani *et al.*, 2006). The definition considered to be most suitable for the purpose of this paper is one that defines e-government that makes full use of the potential of technology to help put its citizens at the centre of the whole thing it does, and which makes its citizens its intention(Waller *et al.*, 2001)

Like e-business, e-government promises to deliver a number of benefits to citizens, businesses and governments. The most significant benefits of e-government according to the literature are: delivering electronic and integrated public services through a single point of access to public services 24 hours a day, seven days a week (Reffat, 2003); bridging the digital divide so that every citizen in society will be offered the same type of information and services from government (InfoDev, 2002); rebuilding customer relationships by providing value-added and personalised services to citizens (Davison et al., 2005); fostering economic development and helping local businesses to expand globally; and creating a more participative form of government by encouraging online debating, voting and exchange of information (Reynolds and Regio, 2001; Bonham et al., 2001; InfoDev, 2002; and Davison, et al., 2005).

 Like any other new technology or organisational concept, the introduction of e-government to a country will also result in a number of challenges for the citizens and the government alike (Margetts and Dunleavy, 2002; Seifert and Petersen, 2002; Zakareya and Irani, 2005). Overcoming these challenges would therefore be one of the biggest tests for the government and citizens of any country planning to implement the concept. Research on e-government has identified issues such as lack of awareness (Reffat, 2003), lack of citizens' interest (Porter, 2002; Sampson, 2002); and lack of government support (Karunananda and Weerakkody, 2006) as hindering the adoption of e-government in many countries.

In an e-government context, Moon (2002) proposed that IT and web-based public services can help governments to restore public trust by coping with corruption, inefficiency, ineffectiveness and policy alienation. Conversely, lack of access to e-services (Silcock, 2001; Fang, 2002; Darrell, 2002; Chircu and Lee, 2005) and digital divide (Silcock, 2001; InfoDev, 2002; Carter and Bèlanger, 2005; Ifinedo and Davidrajuh, 2005; John and Jin-Wan, 2005; Chen et al., 2006) are challenges that can impact on participation and thereby obstruct the further take-up of e-government services. To bridge the digital divide, Reffat (2003) suggests that governments could help by providing computer education especially to elderly and younger people. In this context, researchers have also found that younger citizens are accessing the internet more compared to older citizens (Kurunananda and Weerakkody, 2006).

From the aforementioned, this research will focus particularly on the influence that Wi-Fi Internet security and speed have on the intention to use a new technology, in this instance iPark. Similarly it will also examine perceived usefulness and ease of use of iPark services and the influence that a citizen's gender and professional background have on the intention to use such services.

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Davis et al., (1989, p. 985) defined perceived usefulness as *''the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context*,'' and defined perceived ease of use as *''the degree to which the prospective user expects the target system to be free of effort''*. These definitions underpin the major contribution of the Technology Acceptance Model (TAM); TAM   primarily focuses on the development and identification of the aforementioned two key constructs examined in this study , 'perceived usefulness' and 'perceived ease of use'. However, the original TAM did not include any moderating effects, and much research suggested incorporating these moderators to include gender and age into the original TAM in order to make better predictions and explanations associated with user behaviour for a particular technology (Venkatesh and Davis, 2000). According to Morris and Venkatesh (2000) gender differences has been shown to exist in technology adoption contexts. Furthermore, gender significantly moderates the influence of the determinants on behaviour intention. For example, Venkatesh et al. (2003) found that the effect of Perceived usefulness on behaviour intention was moderated by gender. In terms of Internet security, it is an important factor in wireless internet and electronic services; high level of confidence and trust among all users will be the foundation of a successful iPark initiation. Likewise, the other construct examined in this research, educational background, is identified in previous research as an antecedent to perceived usefulness and perceived ease of use (Agarwal & Prasad 1999).

3   TECHNOLOGY ADOPTION: THE THEORETICAL BACKGROUND

Researchers in the field of Information Systems and Information Technology have for long been interested in investigating the theories and models that have the power in predicting and explaining behaviour (Venkatesh et al, 2003). For example these theories and models include, Theory Of Reasoned Action (TRA), Theory Of Planned Behaviour (TPB), Innovation Diffusion Theory (IDT) (Rogers, 1995), Unified Theory Of Acceptance and Use of Technology (UTAUT), and Technology Acceptance Model (TAM) (Venkatesh et al,2003).

The Technology Accepted Model is adapted from the Theory of Reasoned Action (TRA) to the field of information systems. Davis developed TAM in 1989 (Davis, 1989) and uses TRA as a theoretical basis for specifying the linkages between two key beliefs: perceived usefulness and perceived ease of use and users' attitudes, intentions and actual usage behaviour. According to Davis et al., (1989) the main goal of the model is to give an explanation of the determinants of computer acceptance which resulted to an explanation of user behaviour across a broad range of end-user computing technologies and user populations (Davis et al., 1989). In addition, another key focus of TAM is to provide a base for determining or exposing the impact of external variables on internal beliefs, attitudes, and intentions. During previous years, TAM has received an extensive support through validation, applications, and replications for its power to predict use of information systems (Cheng et al, 2006).

Additionally, TAM is considered as a well-established, well-tested, powerful, robust and parsimonious model for predicting user acceptance of technology (Venkatesh and Davis, 2000). Some examples of these technologies are electronic mail, text editors, and word processing systems and graphics software. Given this context, in this study, TAM will be used as the theoretical basis for examining user intention to use the iPark concept in Qatar. We have extended the TAM model to include four other relevant constructs, Wireless Internet safety, Wireless Internet response time, gender, and qualifications. Therefore, we hypothesize that intention to use iPark is influenced by gender, qualifications, perceived usefulness, perceived ease of use, wireless Internet safety, and wireless Internet speed/response time (figure 1). This paper will test the strength of the hypothesized relationships mentioned in the theoretical model outlined in figure 1 and the appropriateness of the model in predicting users' intention to use iPark in the State of Qatar.
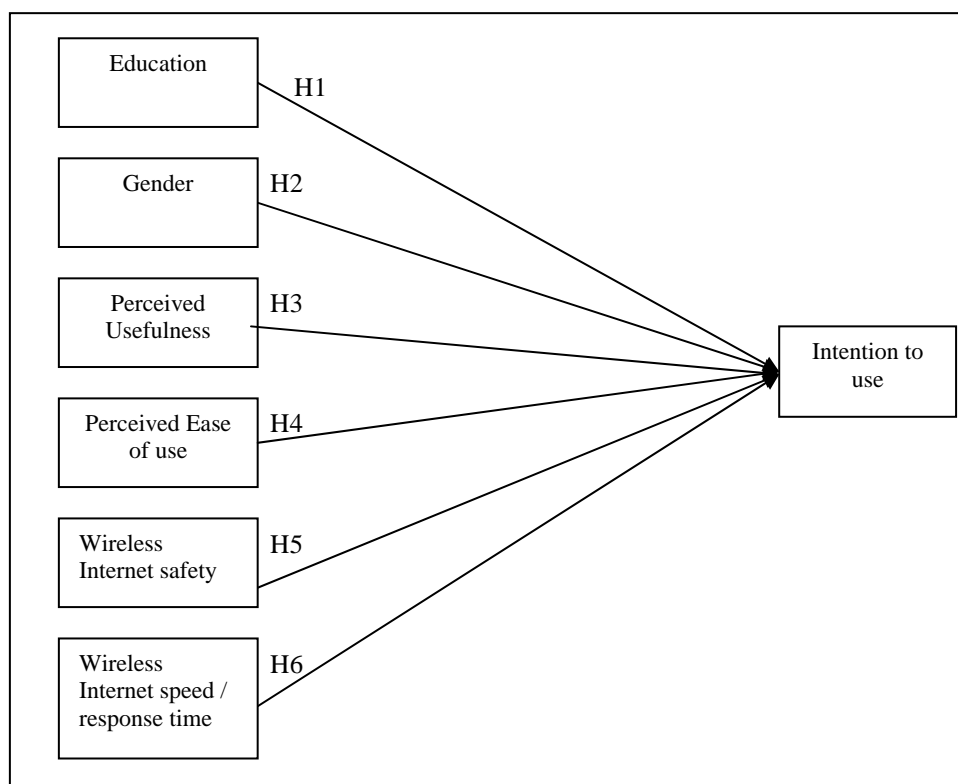
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Figure 1. iPark Adaption Factors

4   E-GOVERNMENT AND IPARK IN QATAR

The State of Qatar is a peninsula with a strategic position at the centre of the west coast of the Arabian Gulf. The total land area is approximately 11,437 sq km. The population estimated to be around 1,500,000 (The Peninsula, 2008); however, only a minority of the population is citizens by birth, while the rest are residents who live or work in Qatar and are not Qatari's by birth (Al-Shafi and Weerakkody, 2007b). E-government was launched in Qatar in July 2000. The vision of the Qatari e-government project was "*Qatar online services, anytime, anywhere, providing government transactions, information and knowledge*" (Al-Shafi and Weerakkody, 2007a). In the vision of the Qatar e-government project, the definitions of some key terms were as follows:

• *Anytime* means e-government services available 24/7.

• *Anywhere* means e-government transactions will be available through multiple internet channels such as kiosks, wireless mobile and digital TV.

• *E-government transactions* mean fully integrated transactions that are offered by the government agencies to be provided through internet channels.

The Qatari e-government site offers many services, ranging from student registration and paying traffic violations to applying online for visas and permits (Al-Shafi and Weerakkody, 2007a). In global terms the UN Global E-government readiness report (2008) ranked Qatar's e-government project as number 53 worldwide, where as in 2005 it was ranked as number 62 worldwide (Al-Shafi and Weerakkody, 2007a). In addition to this, the UN (2005) report considered the Qatari e-government project to be regional (West Asia) best practice. This implies that major improvements and developments have been made during recent times.

As part of Qatar government's ongoing efforts to increase accessibility to e-government services and bridge the digital divide, free wireless internet access in public parks – (iPark) initiative was launched in March 2007; this concept provides "Broadband for all" and aims to foster a knowledge based society. The primary goal of the initiative is to increase internet usage by establishing "hot spots" in public parks (IctQATAR, 2007). There are currently three designated wireless internet hotspots throughout selected public parks in the city; these parks are targeting visitors who have internet access available on their laptops, PDAs, and other internet-ready devices (The Peninsula, 2007).

5   RESEARCH HYPOTHESIS

Based on the aforementioned and the theoretical context offered in section 2 and 3, we propose the following research hypotheses in table-1 to examine the adoption of the iPark initiative by Qatari citizens. These hypotheses indicate that the constructs that have an impact on the intention to use the iPark initiative in Qatar are: Gender; qualifications; perceived usefulness; perceived ease of use; Wireless Internet safety; and Wireless Internet speed/response time.

NO.	Hypothesis
H1:	Higher levels of education will be positively related to higher levels of intention to use iPark services.
H2:	Gender, mainly Males will be positively related to higher levels of intention to use iPark services.
H3:	Higher levels of perceived usefulness will be positively related to higher levels of intention to use iPark services.
H4:	Higher levels of perceived ease of use will be positively related to higher levels of intention to use iPark services.
H5	Higher levels of Internet safety will be positively related to higher levels of intention to use iPark services.
H6	Higher levels of Internet speed/response time will be positively related to higher levels of intention to use iPark services.

Table 1. Research Hypothesis

6   RESEARCH METHODOLOGY

6.1 Data Collection

The only sources of published information on iPark in Qatar are official government reports and publications. Despite their significance, these publications do not provide an overall picture of the current iPark concept and its use by Qatari citizens in adequate depth. The purpose of this research is to investigate the current state of the Qatari iPark initiative and to examine its acceptance from a citizens' perspective. To explore the argument set out above and understand the context of the iPark initiative in Qatar, brief informal and open-ended interviews (Yin, 1994) were conducted with three citizens (employees of commercial and government organisations) and one Academic (in higher education). The interviews lasted around 30 minutes and provided the context to formulate a detailed survey questionnaire that was to be used to investigate the citizens' perceptions of iPark in Qatar.

After the questionnaire was designed, a limited testing was done using one researcher and four practitioners. This was important to improve the questions and to test respondents' comprehension and clarity before the actual survey was administered (Saunders et al., 2002).

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The pilot testing led to the removal of one question and modification to another. Thereafter, the author emailed and delivered by hand the questionnaire to around 30 friends and colleagues in Qatar from different nationality, age, qualification, gender and professional backgrounds. Results of these questionnaires (23 out of the 30 responded) revealed that most respondents did not have any idea about the iPark initiative, or their location. Therefore, the results of the survey were unusable. Given this context, one of the authors decided to visit the iParks physically and meet the visitors to these parks. The protocol followed was as follows. First, one of the researchers approached the iPark users, identified himself and provided a brief description of the research and the main purpose of the questionnaire. Then, the process of completing the questionnaire began by distributing the questionnaire to users and briefly explaining the contents of the questionnaire. Thereafter the questionnaires were collected after a period of around 20 to 30 minutes.

The survey questionnaire was distributed to a total of 55 iPark users between the period of November and December 2007. Overall, a survey questionnaire approach was selected as it is inexpensive, less time consuming and has the ability to provide both quantitative scale and qualitative data from a large research sample (Cornford and Smithson, 1997). The questionnaire used had 26 closed-ended questions and used likert scale type (5-point scale) questions, which were both quicker and easier to answer for the respondents (Saunders et al., 2002).

6.2 Data analysis

The proposed research model consists of six independent variables, gender, qualifications, usefulness, ease of use, wireless Internet safety, and wireless Internet speed/response time and one dependent variable, intention to use.

To check the responses of these questions, the first stage consisted of checking the responses and tagging them with a unique number. The author generated the descriptive statistics (percentage and tables) and used Linear Regression analysis by utilising SPSS (Version 15.0). Descriptive data analysis provides the reader with an appreciation of the actual numbers and values, and hence the scale that researchers are dealing with (Dwivedi and Weerakkody, 2007).

7 RESEARCH FINDINGS

7.1 Respondent's profile

Of the 55 completed questionnaires that were returned, one questionnaire was discarded (because the respondent gave more than one answer to a question that expected only one answer) and many questions were unanswered. This meant that the final sample of 54 questionnaires was used for all subsequent analysis. Of these 54 usable respondents (15%) were females while 85% were males. Also, of the 54 respondents, 13 (24%) had an internet connection and accessibility in their homes only, 4 (7.4%) had at work only, and 23 (42.6%) had a connection at both places (work and home), while 2 (3.7%) did not have either connection. This meant that about (74%) of the free wireless internet park users in Qatar had internet connections in their home/work or both.

When examining the 'ease of use' of iPark services, 85% of the respondents mentioned that they found the service was easy for them, while 15% thought otherwise. Additionally, 78% of the

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respondents found that their interactions with the use of the free internet park service were clear and understandable and only (5.5 %) disagreed with this view.

In terms of age, the results revealed that the majority of respondents (38%) were found in the age group of 31-45, followed by the age group of 19-30 constituting around (32%) of the total respondents. In contrast, the younger groups (less than 18) and older age groups (46-60) consisted together of (30%) of the total respondents (see figure 2).

As far as education is concerned, the majority of respondents (38%) hold postgraduate degrees (Masters and PhD), and (36%) hold undergraduate level qualifications and 26% hold secondary school certificates (see figure 2).
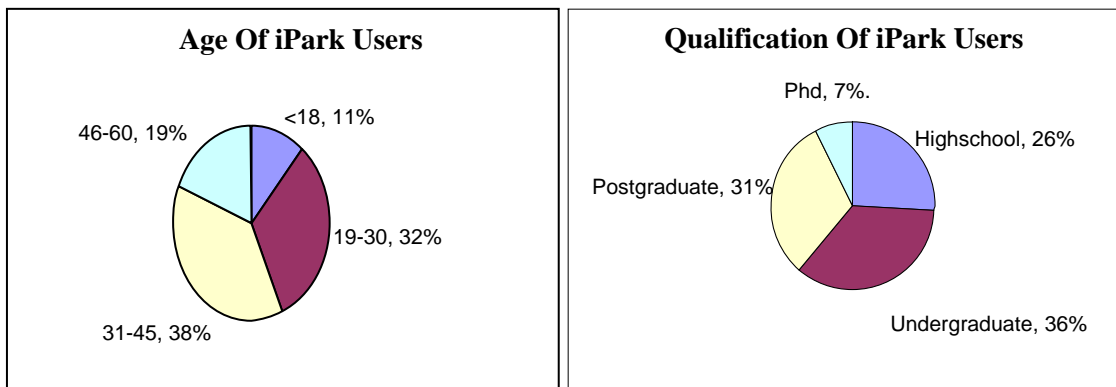

Figure 2: Age and Qualification of iPark user respondents, November & December, 2007

From a 'frequency of use' perspective, 78% of the users used iPark less than 5 times a week, while from the remaining 22%, 11% of the users used the iPark more than 20 time and the other 11% between 5-10 times a week.

Finally, Figure 3 shows that the majority of respondents used iPark for: emails (76%); chat (35%); e-government services (22%); Fun (43%); Research (22%); News (56%); Enquiry (26%); Downloading Information (54%); and other (6%).
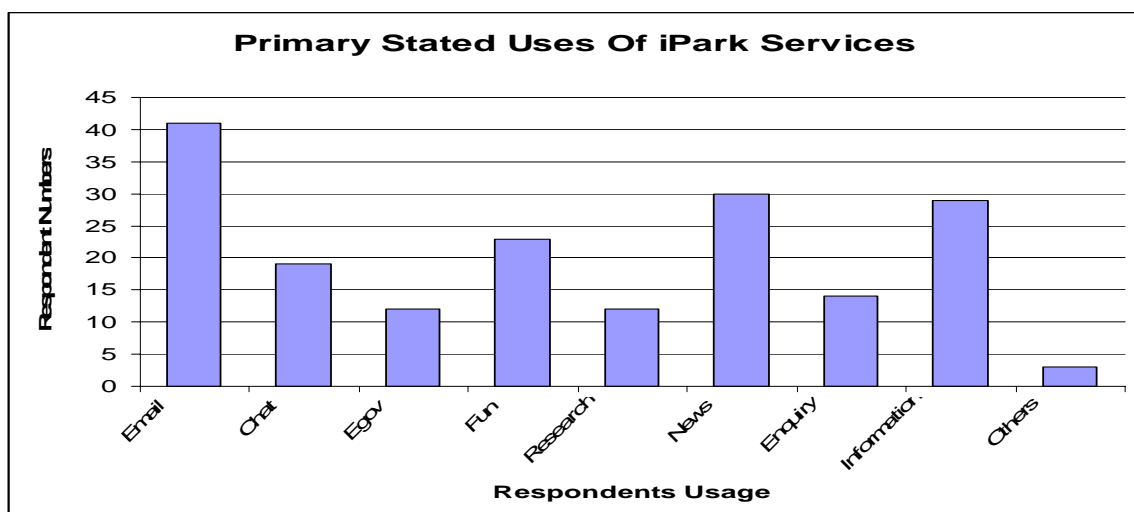

Figure 3: Primary uses of iPark user respondents, November & December, 2007

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As outlined in table-2, the average scores for respondents' perceived ease of use ranged from 4.07 to 4.37, (where 1 = minimum and 5 = maximum). Descriptive statistics show that these scores are quite high. For perceived usefulness, the score ranged from 3.85 and 4.54, which is quite high. Concerning perceived technology and web security, the score ranged from 2.87 to 3.70, indicating that the scale is average. In addition, for attitude towards iPark, the score ranged from 4.35 to 4.59, indicating that the scale is uniform. The last score ranged from 3.30 to 3.72 for intention to use.

	Mean	Std. Deviation
Demographic Categories		
Gender (1 = Male , 2 = Female)	1.15	.359
Qualification	2.20	.919
Age	2.64	.922
I use iPark frequently	3.43	1.238
I encounter problem frequently in using the iPark	2.70	1.218
I use iPark service frequently as source of information	3.51	1.187
Perceived Ease Of Use		
Using the iPark service is easy for me	4.07	.949
I find my interaction with the use of the iPark services clear and understandable	4.08	.917
It is easy for me to become skilful at the use of the iPark services	4.37	.853
Overall, I find the use of the iPark services easy	4.17	1.060
Perceived Usefulness		
Using the iPark would enable me to accomplish my tasks more quickly	3.89	1.144
Using the iPark would make it easier for me to carry out my tasks	3.85	1.139
I would find the iPark useful	4.54	.803
Overall, I would find using the iPark to be advantageous	4.50	.897
Perceived Technology and Web Security		
I would feel secure sending sensitive information across the iPark	2.91	1.336
I would rate the speed of Internet/ Response time in the iPark is good	3.70	.964
Overall, the iPark is a safe place to transmit sensitive information	2.87	1.275
Attitude		
Using the iPark is a good idea	4.59	.567
I would feel that Using the iPark is pleasant	4.43	.742
In my opinion, it would be desirable to use the iPark	4.35	.828
In my view, Using free wireless Internet from public parks is a wise idea	4.42	.936
Intention To Use		
I would Use the iPark channels for my government and personal needs.	3.72	1.140
Using the Web from iPark for handling my electronic government transactions is something I would do	3.30	1.207

Notes: SD = Standard Deviation.
** Scores range from 1 to 5, where 1 = Strongly Disagree and 5 = Strongly Agree.

Table -2. Descriptive Statistics

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Table-3 also shows that the correlation is significant to three key factors: *perceived ease of use (0.258), perceived technology (response time) (0.405) and web security (0.455).* Whereas, the following factors: gender (0.115); qualification (0.72); and perceived usefulness (0.178) were found to have insignificant impact. Interestingly, it was found that qualification does not have a positive correlation (- 0.72) as per hypothesis (H1).

		I would Use the iPark channels for my government and personal needs.
1. Gender	Pearson Correlation	.115
	Sig. (1-tailed)	.205
2. Qualification	Pearson Correlation	-.072
	Sig. (1-tailed)	.301
3. I would find the iPark useful	Pearson Correlation	.123
	Sig. (1-tailed)	.188
4.Overall, I find the use of the iPark services easy	Pearson Correlation	.407(**)
	Sig. (1-tailed)	.001
5. I would rate the speed of Internet/ Response time in the iPark is good	Pearson Correlation	.271(*)
	Sig. (1-tailed)	.024
6. Overall, the iPark is a safe place to transmit sensitive information	Pearson Correlation	.540(**)
	Sig. (1-tailed)	.00
* Correlation is significant at the 0.05 level (1-tailed). ** Correlation is significant at the 0.01 level (1-tailed).		

Table 3. Correlations

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7.2 Regression analysis: factors influencing the intention to use iPark

A regression analysis was conducted with the use of iPark channels as dependant variable and gender, qualification, perceived ease of use, perceived usefulness, perceived technology, and web security as predictor variables. From a total of 54 cases that were analysed a significant model emerged {F (6, 54) = 5.166, p < .001} (Table-4). The second significant statistic that was obtained from the analysis is the R², which ranges from 0 to 1, with 1 being a perfect fit model. It was found that R²= 0.408 for this analysis. This factor explains 41% of the changes in the intention to use iPark. Other unidentified factors account for the remaining 59%. The R² of 41 (41%) is considered as a good value for a cross-sectional data involving many predictor variables. Also, table-4 shows that of all the factors, the following have no significant impact on intention to use iPark: Gender (β = 0.371, p= 0.862); Level of Education (β = 0.149, p= 0.132); perceived ease of use (β = 0.150, p= 0.421); perceived usefulness (β = 0.214, p= 0.440); response time (β = 0.149, p= 0.032); and wireless Internet security(β = 0.321, p= 0.006).

			ANOVA		
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	27.358	6	4.560	5.166	.000
		Regression Model			
Model	R	R Square		Adjusted R Square	Std. Error of the Estimate
1	.639	.408		.329	.939
	Factors Affecting	*Intention To Use*	*iPark*		
Intention To Use iPark Factor	B	Standardised Beta		T Statistics	Significance
(Constant)	.886	1.028		.862	.393
Gender	-.065	.371		-.175	.862
Level of Education	-.228	.149		-1.532	.132
Overall, I find the use of the iPark services easy	.122	.150		.813	.421
I would find the iPark useful	.167	.214		.779	.440
I would rate the speed of Internet/ Response time in the iPark is good	.329	.149		2.207	.032
Overall, the iPark is a safe place to transmit sensitive information	.321	.111		2.899	.006

- Predictors: (Constant), Gender, Level of Education, Overall, I find the use of the iPark services easy , I would find the iPark useful , I would rate the speed of Internet/ Response time in the iPark is good, Overall, the iPark is a safe place to transmit sensitive information.
- Dependent Variable: I would Use the iPark channels for my government and personal needs

Table 4. Regression analysis results

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8   DISCUSSION AND CONCLUSION

E-government is widely accepted and seen as a growing trend worldwide. In the Middle East, most countries have implemented e-government services. However, the growth and adoption of e-government in a country will depend on basic prerequisites such as education, trust, marketing and awareness (Bhattacherjee, 2002; Reffat, 2003; Navarra and Cornford, 2003). The Qatari e-government project serves natural citizens, foreign residents and workers, and business and government agencies. As part of Qatar's national e-government program free wireless internet access in public parks – (iPark) initiative was launched in March 2007. While the wider aim of this initiative is to bridge the digital divide by offering free Internet access to all, from an e-government perspective it hopes to entice more citizens to access public services online (ICTQatar, 2007). The Qatari government is keen to exploit the global trend for free Wireless Internet access in public places (hotspots) by becoming the first country in the Arabian region to implement the iPark concept.

This paper has presented the results of a survey that was conducted in Qatar during the last quarter of 2007 to examine the user adoption of the iPark initiative. The survey targeted towards iPark users and the results from this research sample provide a representative account of the citizens' perceptions of the iPark project. While the availability and use of Wi-Fi networks continue to increase, for users, Wi-Fi facilitates greater mobility, information access, and flexibility in connectivity, improved efficiency, low cost, ease of use, and new applications, which could change the way they access electronic services, including e-government.

The results of this research showed that the correlation is significant to three key factors: perceived ease of use, perceived technology (response time) and web security. Whereas gender, qualification, and perceived usefulness were found to have insignificant impact.

Furthermore, the research showed that there is a positive relationship between the independent variables: gender; usefulness; ease of use; Wireless Internet safety; and Wireless Internet speed/response time, and the dependent variable (intention to use). This implies that hypothesis (H2, H3, H4, H5 and H6) are consistent. In contrast, 'citizens' educational background' (H1) showed a negative relationship with intention to use iPark. This implies that contrary to expectations the citizens' intention to use new technological concepts such as iPark has no link with the educational background of the citizen in the Qatari context. Given these findings, it can be concluded that the iPark initiative in Qatar has been successful initially in promoting wider access to the Internet. This is encouraging from an e- government perspective. The authors suggest that public parks (iParks) can be used to advertise and market the Qatari e-government national website and raise e-government awareness among Qatari citizens. While the research findings are encouraging from a practical perspective for the Qatari government, from a theoretical perspective these results reconfirm that technology acceptance is influenced by key constructs such as perceived usefulness, perceived ease of use, and efficiency and security aspects of the services used.

This research describes an early attempt to study the adoption of the iPark initiative by Qatari citizens and thus represents only the views of a limited sample of users (54). To ensure more thorough testing of the hypothesis proposed in this research, the authors have planned future research in the fourth quarter of 2008 to survey a larger number of iPark users.

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