American Journal of Engineering Research (AJER)
e-ISSN: 2320-0847 p-ISSN : 2320-0936
Volume-5, Issue-10, pp-205-214
www.ajer.org
Research Paper Open Access

Analysing The Relationship Of Perceived Ease Of Use, Perceived Usefulness And Intention To Use E-Government Services In State Of Punjab

Manjot Kaur
Assistant Professor, G.S.S.D.G.S. Khalsa College, Patiala

ABSTRACT: *The main objective of this study is to scrutinize and examine empirically the relationship between perceived usefulness, perceived ease of use and intention to use e-government services by the citizens of state of Punjab. Although, a large portion of the academic literature focus on intention of use of e-government, comparatively little is known about why and under what circumstances, citizens adopt e-government services. (Carter L. &., 2005) (Kumar, 2007) (Reddick, 2005) Hence, the central point of this research study is to analyse the relationship between perceived usefulness, perceived ease of use and intention to use e-government. After explaining the research objectives, this research paper discussed the literature review about the e-government. Based on the literature review, five research hypotheses have been developed and a research model was proposed having three constructs. These three constructs and five hypotheses were tested by a structured questionnaire. Questionnaires were distributed to 200 participants. Of the 200 surveys collected, 22 were considered unusable because they had many missing response items. The remaining 178 surveys were used in the analysis. The findings indicate that all the constructs contribute significantly to citizen adoption of e-government services in the state of Punjab.*
Keywords*: Perceived Usefulness, Perceived Ease of Use, Intention to use, E-Government Adoption*

I. INTRODUCTION

E-governance involves ICTs, especially the internet to enhance the delivery of government services to citizens, businesses & government agencies as well. Besides the public sector, it also includes the management and administration of policies and procedures in private sectors. Except the delivery of faster services, internet also provides more transparency between the government and the citizens (Mittal & Kaur, March 2013). The literacy rank of Punjab is 21 (Indian states ranking by literacy rate, 2011). Therefore, having such low level of literacy, it is very much difficult for the government to provide its services to such citizens via the means of Internet. The E-readiness is defined as the ability to use information and communication technologies to develop one's economy and welfare. According to the Global Information Technology Report 2012, the e-readiness rank of India is 69 with the score of 3.89 out of 10 (Mittal & Kaur, E-Governance -A Challenge for India, March 2013). As per the Dataquest- IDC e-governance satisfaction study, the state of Punjab has 16th rank for citizen satisfaction and 5th rank in e-readiness (Singh & Chander, 2014). Hence, the use of ICT in India is very low, likewise in Punjab as well. (Mittal & Kaur, March 2013)

The e-government projects are implemented by government of India in a very efficient manner. As per the e-readiness reports of DIT (Department of Information Technology) of India, Andhra Pradesh, Punjab, Delhi, and Chandigarh & Tamil Nadu are positioned as the leaders in the use of ICTs. Therefore, it can be said that, Punjab is one of the dominant state of India in ICT advancement. DoIT has been established in the state of Punjab. DoIT takes initiatives for the successful implementation of e-government projects in the state. The projects initiated by the state government &DoIT are SUWIDHA, CSCs, e-Districts, VAHAN, (ii) SAARTHI (Mittal & Kaur, E-Governance initiatives in the State of Punjab, 2013). E-government is one of the best ways to solve the social and economical problems that exists in state of Punjab. According to Deepak Ghaisas, former Chairman NASSCOM product forum and CEO India operations estimate "23 percent of government spending goes on defense and 46 percent on governance. It will actually boost the domestic tech industry, if a small fragment is spent on technology to streamline the process. (Dwivedi & Bharti)

- E-Government will able to provide the government services to the common man in a worthwhile manner. Following are the some successful stories of e-government in Punjab-

(i) **PAWAN (Punjab State Wide Area Network)-** PAWAN is the basic component for supporting E-government initiatives in Punjab. PAWAN is responsible as the backbone network for data, voice and video communication throughout the state. PAWAN lessens the communication cost and utilizes the services in a cost effective manner. It ensures that every citizen of the state has access to government services and information from anywhere and everywhere whenever they need it. (Mittal & Kaur, E-Governance initiatives in the State of Punjab, 2013)(Singla & Aggarwal, April 2012)

(ii) **SUWIDHA (Single User-friendly Window Disposal Helpline for Applicants)-**This project was subsidized by GoP (Government of Punjab) and DOIT (Department of Information Technology), invented in August 2002 at Fatehgarh Sahib. This project is being implemented in all Deputy Commissioner's offices. SUWIDHA provides a user friendly, faster, cost-effective and adequate interface between the government and public. SUWIDHA has also provided the facility of native language i.e. Punjabi. By this project, citizen can capture the input at a single point, define a specified delivery date depending upon the type of services, accept the cash at the counter itself and delivers the required service at the same counter. SUWIDHA provides the following services-

i. Issuance of Birth Certificate.
ii. Issuance of Death Certificate.
iii. Issuance of Affidavits.
iv. Issuance of Permissions.
v. Issuance of Indemnity Bonds.
vi. Issuance of Surety Bonds.
vii. Issuance of Bus Passes.
viii. Issuance of Dependent Certificate.
ix. Issuance of Licenses.
x. Issuance of Nationality Certificates.
xi. Issuance of Copy of a Document/ Inspection of record and misc services.
xii. Issuance of ID card.
xiii. Issuance of Marriage certificate.
xiv. Issuance of Un-married Certificate.
xv. Issuance of No objection Certificate.
xvi. Arm Licenses related services.
xvii. Services to Pensioners.
xviii. Character Verification.
xix. Endorsement of SPA/GPA.
xx. Appointment of Namberdar.
xxi. Driving License related services.
xxii. Registration of Vehicle related services.
xxiii. Submission of Passport Applications.
xxiv. Counter Signing of documents. (Mittal & Kaur, E-Governance initiatives in the State of Punjab, 2013)

(iii) CSC (Common Service Centre) – It is a community service centre for rural citizens at panchayat level covering six villages. CSC offer services as per the requirements of all the communities in its surroundings five-six villages. As these centers are trying to offer every government department's service at one place. Therefore, each CSC is provided with computer, multifunctional printer, digital camera, internet connection and other related facilities. Through this CSCs have reduced the technical differences between rural and urban areas. (Mittal & Kaur, E-Governance initiatives in the State of Punjab, 2013)

(iv) VAHAN and SARATHI- To offer citizen centric services, Punjab State Transport Department is the initiator in using Information Technology. Ten years ago, computerization of department started the implementation of VAHAN and SARATHI software. All the services related to transport are being computerized and data is made available through internet or SMS for access by the public.

i. VAHAN- This software is developed by NIC Headquarters Delhi. It is used for register Vehicle, tax collection, issuing various certificates and permits and recording the fitness of vehicles.
ii. SARATHI- This software is also developed by NIC Headquarters Delhi. It is used by RLA (Registering and Licensing Authority). Services provided by SARATHI include learner license, permanent driving license, conductor's license and driving school license. (Mittal & Kaur, E-Governance initiatives in the State of Punjab, 2013)

(v)e-Districts- Districts are the actual front-end of government where most government-to-citizen interactions take place. To improve this interaction and to enhance the efficiency of various departments at District level, the

e-Districts project is initiated by Punjab Govt. This project ensures to provide the smooth delivery of services. This project is executed under NeGP (National e-Governance Plan). As per the guidelines, this project offers the following services:

i. Certificates.
ii. Social Security.
iii. Police.
iv. Education.
v. Health.
vi. Transport.
vii. Agriculture.
viii. Urban Development.
ix. RTI services.
x. Public Distribution System.
xi. Government dues and recovery.
xii. Revenue Court. (Mittal & Kaur, E-Governance initiatives in the State of Punjab, 2013)

(vi). PRISM (Property Registration Information System Module) - To facilitate the land owners of the state, Revenue Department initiated the computerization of land records. This project simplifies the land registration process with high speed and efficiency at sub registrar offices across the state. The services offered by this project includes on the spot valuation of property, on the spot stamp & registration fees calculations, online photo capturing of parties and witness along with Sub-Registrar and saving in data base, printing of photographs of parties in concern in the backside of stamp paper. Besides, user interface is available in native language i.e. Punjabi and English. (Singla & Aggarwal, April 2012)

(vii). ITISP (Integrated Treasuries Information System Of Punjab) – In 2001, Government of Punjab developed ITISP for the computerization of Treasuries. Under this project, 18 district treasuries and 53 sub treasuries have been computerized. It is an online system for automation of treasuries and is accountable for verification of messenger by photo and signature. This project has lessened the time involved in calculation and enhances the accuracy and reliability of financial reports. (Singla & Aggarwal, April 2012)

(viii). PSEGS (Punjab State E-Governance Society)-The prime aim of this project is to regulate the implementation of e-governance projects for the overall welfare of the citizens. PSEGS is responsible for setting up the necessary administrative, financial, legal and technical framework, implementation mechanism and resources in the state of Punjab. Sukhmani Societies are established under this project to provide the information and services to the citizens. (Singla & Aggarwal, April 2012)

II. MOTIVATIONS FOR THIS STUDY

The motivations for this study arise from the exhortations that occurred in the literature of e-government adoption and intention to use (Kumar, Mukerji, Butt, & Persaud, 2007). Investigating citizen's responsiveness or reactions to e-government services offered to public is needed. (Gil Garcia & Martinez Moyano, 2007). Undoubtedly, offering up to date, effective and secure information on an e-government website will inspire more organizations and individuals to collect information, download forms, fill in and return files which cause a significant cost saving and efficiency gains for all participating parties. (Tung, 2005) (Huang, E-government Practices at Local Levels: An Analysis of U.S. Countries Websites, 2006) launch a strong call for more empirical research on user's acceptance of e-government services to improve its effectiveness and quality. (Kumar, Mukerji, Butt, & Persaud, 2007) argue that understanding why and how citizens use and interact with e-government websites is an important research exploration. Presently, the up-take and widespread use of e-government public services is still problematic in most countries (Verdegem & Verleye, 2009). Finally, (Al-Adawi, Yousafza, & Pallister, September,2005) hypothesizes that empirical evidence that shows how perceived usefulness and perceived ease of use is linked with intention to gather information or conduct transactions is needed. Therefore, it is obviously worthwhile to investigate this issue in more detail.

III. RESEARCH OBJECTIVES

The major objectives of this research are concerned with answering the following questions-

1. To what extent do the citizens of Punjab perceive that e-government system is useful and easy to use?
2. What is the relationship between perceived usefulness, perceived ease of use and intention to use e-government services?
3. Do the demographic variable such as age, gender, level of education etc make a difference in the relationship between perceived ease of usefulness, perceived ease of use and intentio to use e-government services.

IV. LITERATURE OF E-GOVERNMENT INTETION TO USE

There is no comprehensive accepted definition of e-government. E-government is also known as electronic government, electronic governance, digital government, online government, e-gov etc(Gronlund, 2004). There are many definitions of e-Government. (Fang, 2002) defines e-government as a way for governments to use the most innovative information and communication technologies, specifically web based internet applications, to offer the citizens and businesses with more suitable access to government information and services, to enhance the nature and status of services and to provide great chances to participate in democratic institutions and processes. World Bank defines E-government- "E-Government refers to the use by government agencies of information technologies such as Wide Area Network, the Internet and Mobile Computing that have the ability to transform relations with citizens, businesses and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth and /or cost reduction." (Palvia & Sharma, 2007). The United Nations and American Society for Public Administration (ASPA) (2002, p.1) define e-government as "using the internet and world wide web for providing government information and services to the citizens. Likewise, Heeks (2003, p.2) defines e-government as "the use of (ICT) information and communication technologies to upgrade the activities of public sector organizations". Similarly Hernon et al. in (Jaeger, 2003) thinks that e-government "employs technology, especially the Internet, to enhance the access to and delivery of government information and services to citizens, businesses, government employees, and other agencies". On the contrary there are e-government definitions that not only highlight the use of technology, but also shed light on the purpose of such technology. For example, DGSNA (Digital Government Society of North America) defines e-government as "the use of information and technology to support and improve public policies and government operations, engage citizens and offer comprehensive and timely government services". In the same way, (Riley, 2007) defines e-government as "a central theme in information society at all levels such as local, national, regional and global as well. E-government has, or can transform public sector internal and external relationships through the use of ICT to promote greater accountability of the government, increase efficiency and cost effectiveness, and create greater constituency participation".

However, in spite of diversity of e-government definitions in literature, there is a common fundamental concept that underlies all these definitions- the consumption of web based tools and applications for public service delivery.

As there is no clear definition of Government to Citizen e-government adoption (Kumar, Mukerji, Butt, & Persaud, 2007)So, analysts refer to it as the 'intention' (Carter & Belanger, 2005) (Warkentin, Gefen, Pavlou, & Rose, 2002) or 'eagerness' (Gilbert, 2004) to use e-government applications. Warkentin et al. (2002, p.159) define e-government adoption as "the intention to 'engage in e-government', which encompasses the intentions to receive information, to provide information and to request e-government services". Likewise, Kumar et al. (2007, p.69) define it as "a simple decision of using, or not using, online services". For the motivation of this research study, e-government adoption refers to the desire or determination of citizens to use e-government information and services.

Growingly, governments all over the world have become aware about the significance of offering information and services through the internet. Therefore, many of the national governments around the world have an online website. As per the UN Global E-Government Readiness Survey conducted in 2005, 94 percent of the United Nations member states have an online presence (Nations, 2005). At the local government level, the rate of website adoption is high as well. In fact, an e-government survey conducted in the US described that 85.3 percent of municipal governments had their own websites (Moon, 2002).

In spite of broadcasting of e-government websites and the increasing speculation in e-services at both national and local government levels, various researchers reported the issue of low level citizen adoption of e-government services (Belanger F. &., 2008) (Carter & Belanger, 2004). (Dwivedi & Bharti)

Researchers found that citizens are still more likely to use conventional methods in spite of growing rate of investments in e-services. For example phone calls or in-person visits, than the internet to interact with the government. Kumar et al. (2007, p.63) also emphasize the same issue when they discovered that the rate of adoption of e-government has worldwide fallen below suppositions.

The prospective of ICT in impacting the live of the rural poor in a number of ways is now being extensively identified. Identification of prospective comes from a few successful tele-center pilots in some developed and developing countries. (Sinha, 2006) emphasized that in last twenty years, India has been gone through dramatic increase in the development and the spread of information and communication technology along with the emergence of the user friendly computing systems and networking. (Bhatnagar & Schware, 2000) provides key insights and practical guidelines on – ways to successfully implement e-government projects, selecting application areas, project designs, strategies and their implementation, benefits and impact of e-

government on public sector reform, poverty reduction and empowerment methodology for evaluating e-government projects and overall strategy formulation.

State of Punjab is is an agricultural based state and most of the people live in villages, therefore by offering ease of use of the government services can help in enhancing their economic and social life. According to the Dataquest- IDC e-governance satisfaction study, state of Punjab has 16th rank on the basis of satisfaction level and 5th rank on the basis of e-readiness. Government of Punjab is implementing the e-services in a quickly way (Singh & Subhash, E-Governance in Punjab- A User Staisfaction Study, 2013).

(Vikram & Subhahas, June 2012) states that government of state of Punjab has done significant work in development of e-governance. People of Punjab are getting great advantages from the e-services offered by Punjab government. People are unable to learn IT because low rate of IT literacy level. Research shows the necessity of awareness about the computer and internet among the citizens for the effective implementation of e-governance

V. RESEARCH MODEL AND FORMULATING HYPOTHESIZES

The research model that guides this study is shown in following figure 1,the model examines the relationship between perceived usefulness, Perceived ease of use and Intention to use e-government services. The model is contsructed based on similar research models that appeared in the literature of e-government adoptio. The related literature of e-government intention to use has been evaluated exactly to ensure that the significant factors that frequently appeared in the literarure were not missed. This research is concerned with exploring to what extent citizens of Punjab perceive that e-government is useful and easy to use. It also intends to examine the relationship between perceived uselfullness, perceived ease of use and intention to us e-government services offered to the citizens by the government. Besides, the differences between the citizens of Punajb in intention to use e-government for conducting transcations in terms of gender, age , level of education, computer usage and internet usage were main concerns of this research study. Therefore, the cross-sectional approch seems to be the most appropriate methd for examining this occurrence. The philosophy of the cross-sectional approach is to study a particular occurrence at a particular time. Therefore, a large sample to carry out advanced data analysis is needed in order to ensure that the research results are generalizable. Questionnaires were distributed to 225 participants randomly chosen from Thapar University students, members of Patiala Bar Council and internet users in Punjab. A total of 200, (88.88%) of surveys were returned. Of the 200 surveys collected, 22 were considered unusable because they had many missing response items. The remaining 178 surveys were used in the analysis

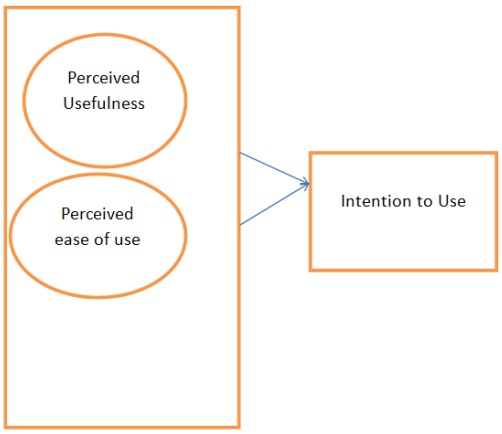

Figure 1. The Research Model

The research model has three constructs. The definition of these constructs are summarized as follows in Table 4.2

Construct	Definition	Reference
Perceived Usefulness	The degree to which a person feels that using a specific system would improve his/her job performance.	Davis(1989, p.320)
Perceived Ease of Use	The degree to which a person feels that using a specific system would be free of effort.	Davis(1989, p.320)
Behavioral Intention to Use	Strength of one's intention to perform a specified behavior	Fishbein and Ajzen (1975, p.216)

VI. LIST OF RESEARCH HYPOTHESES

Based on the literature review and assumptions of TAM, the following research hypotheses have been developed. These hypotheses will be tested in this study to empirically validate the proposed research model of e-government adoption in Punjab.

	Hypothesis	Construct
H1	Citizens of Punjab perceive that e-government system is useful and ease of use	Extent to Perceive
H2	Citizens of Punjab intend to use e-government services	Intention to Use
H3	There is straight and definite relationship between perceived usefulness and the behavioral intentions to use e-government services.	Perceived Usefulness
H4	There is straight and definite relationship between perceived ease of use and the perceived usefulness of e-government services	Perceived Ease of Use
H5	There is significant difference between citizens of Punjab in using e-government services in terms of gender, age, level of education, computer usage and internet usage.	Demographic Variables

VII. DATA ANALYSIS

Questionnaires were distributed to 225 participants randomly chosen from Thapar University students, members of Patiala Bar Council and internet users in Punjab. A total of 200, (88.88%) of surveys were returned. Of the 200 surveys collected, 22 were considered unusable because they had many missing response items. The remaining 178 surveys were used in the analysis. 106 (59.6%) of the respondents from the e-government adopters were male and 72 (40.4%) were female. This indicates that the percentage of female who adopt e-government services in Punjab is higher than the percentage of male.

The highest age range was 26-45 with 55%. Followed by both (21-25) and (46-55) group with 25.8% and 14.0%. The percentage of the age group from above 55 years was 5.1%. The highest percentage i.e. 80.3% of the respondents was from PG degree level. 19.1% of the respondents were from Bachelor degree level, while .6% of the respondents were from College degree level. 52.2% of the respondents belong to Hindu religion and 47.8% of the respondents were from Sikh religion. The majority of the respondents were Private Employee with 52.8%. The percentage of Govt. Employee and students are 27.0% and 18.5% respectively, whereas the percentage of Not Employed was 1.7%. Out of 178 respondents 69.7% of the respondents use Internet several times a day and 10.1% respondents used the Internet about once a week and few times a week as well. On the other hand 6.7% of the respondents used the Internet a few times a month, whereas 3.4% of the respondents used the Internet once in a month. The highest percentage i.e. 30.3% of the respondents used the e-government services once a month. 24.7% of the respondents used the e-government services a few times a week. 23.6% of the respondents used e-government services a few times a month. 9.0% of the respondents used the e-government services about once a day and only 7.3% of the respondents used e-government services several times a day, whereas 5.1% of the respondents are revealed as non-users

Table 2 Respondent Background.

		Frequency	Percent
Gender	Female	106	59.6
	Male	72	40.4
Age	21-25 years	46	25.8
	26-45 years	98	55.1
	46-55 years	25	14.0
	Above 55 years	9	5.1
Education	College degree	1	.6
	Bachelor degree	34	19.1
	PG degree	143	80.3
Religion	Hindu	93	52.2
	Sikh	85	47.8
Profession	Student	33	18.5

	Government employee	48	27.0
	Private employee	94	52.8
	Not employed	3	1.7
Internet Usage	Once a month	6	3.4
	A few times a month	12	6.7
	A few times a week	18	10.1
	About once a day	18	10.1
	Several times a day	124	69.7
How often access E-Government Services	Once a month	54	30.3
	A few times a month	42	23.6
	A few times a week	44	24.7
	About once a day	16	9.0
	Several times a day	13	7.3
	None	9	5.1

A reliability test was carried out using Cronbach's Alpha, which measures the internal consistency of research constructs. The recommended minimum acceptable limit of reliability "alpha" for exploratory study is .60. The result of alpha values for all research constructs are above recommended value exceptIOU as shown in table 3. Therefore, it can be concluded that the scale has internal consistency and reliability.

Table 3: Cronbach's Alpha for Research Constructs

Scale	No. of Items	Cronbach's Alpha
Ease of Use	4	.788
Intention to Use	2	.517
Usefulness	4	.685
Total	10	

2 T-TEST AND ONE-WAY ANOVA- First, the Independent T-test to examine if there are any differences between male and female citizens in terms of adopting and accepting e-government regarding all the variables such as Usefulness, Ease of Use, and Intention of Use. Table 7.3 shows that for Usefulness variable (t-value=-.515, p value=.607), Ease of Use (t-value= 1.413, p value=.159), and Intention of Use (t-value=-.585, p value=.559). The P-value to all the variables are >.05 i.e. non-significant. Thus, there are no-differences between male and female Punjabi Citizens in terms of accepting and adopting the e-services in relation to above said variables, also mentioned in Chapter 4, section 4.3.

Table 4 Independent Sample T-test

Variables	Gender	N	Mean	St. Dev	Standard Error Mean	t-value	Sig. (2-tailed)
Usefulness	Male	106	3.9953	.40382	.03922	-.515	.607
	Female	72	4.0382	.62329	.07345		
Ease of Use	Male	106	3.9292	.60233	.05850	1.413	.159
	Female	72	3.7887	.71170	.08446		
Intention Of Use	Male	106	4.1085	.58961	.05727	-.585	.559
	Female	72	4.1597	.56185	.06622		

Table 5.1 One Way ANOVA test for demographic information

ANOVA for Age					
Construct	Sum of Squares	df	Mean Square	F*	Sig.
Usefulness	2.326	3	.775	3.177	.025
EOU	1.520	3	.507	1.203	.310
IOU	2.673	3	.891	2.751	.044

ANOVA for Education					
Construct	Sum of Squares	Df	Mean Square	F*	Sig.
Usefulness	1.750	2	.875	3.557	.031
EOU	.041	2	.020	.048	.953
IOU	5.188	2	2.594	8.431	.000

Table 5.2

ANOVA for Profession					
Construct	Sum of Squares	df	Mean Square	F*	Sig.
Usefulness	4.813	3	1.604	6.985	.000
EOU	2.193	3	.731	1.751	.158
IOU	10.066	3	3.355	11.924	.000

Table 5.3

ANOVA for E-Government USage					
Construct	Sum of Squares	df	Mean Square	F*	Sig.
Usefulness	5.206	5	1.041	4.525	.001
EOU	9.114	5	1.823	4.775	.000
IOU	8.211	5	1.642	5.558	.000

ANOVA for Internet Usage					
Construct	Sum of Squares	df	Mean Square	F*	Sig.
Usefulness	5.441	4	1.360	5.982	.000
EOU	2.981	4	.745	1.795	.132
IOU	3.421	4	.855	2.661	.034

Table 5.1 shows that demographic attribute age has no significant effects on user's responses on the dimensions "Ease of Use (EOU) and Intention of Use (IOU)" since the p-value>0.05. On the other hand, age factor has a significant effect on the other dimensions such as "Usefulness p=.025", , since p-values are less than .05, this indicates that age factor has a significant effect on Usefulness. Similarly, demographic attribute education has no significant effects on user's responses on the dimensions "Ease of Use (EOU) p = .953". On the other hand, education factor has a significant effect on the other dimensions such as "Usefulness p=.031" and "Intention of Use (IOU) p=.000", since all these p-values are less than .05, this indicates that education factor has a significant effect on Usefulness, PPV, Culture and IOU.

Table 5.2 shows that demographic attribute profession has no significant effects on user's responses on the dimensions "Ease of Use (EOU)" since the p-value>0.05. On the other hand, profession factor has a significant effect on the other dimensions such as "Usefulness p=.000" and "Intention of Use (IOU) p=.000", since all these p-values are less than .05, this indicates that profession factor has a significant effect on Usefulness and IOU. Similarly, demographic attribute Internet Usage has no significant effects on user's responses on the dimensions "Ease of Use (EOU)" since the p-value>0.05. On the other hand, Internet Usage factor has a significant effect on the other dimensions such as "Usefulness p=.000" and "Intention of Use (IOU) p=.034", since all these p-values are less than .05, this indicates that Internet Usage factor has a significant effect on Usefulnessand IOU.

Table 5.3 shows that E-government Usage factor has a significant effect on all the dimensions such as "Usefulness p=.001", "Ease of Use (EOU) p=.000 and "Intention of Use (IOU) p=.000", since all these p-values are less than .05, this indicates that E-government Usage factor has a significant effect on Usefulness, Ease of Use, and IOU.

VIII. CONCLUSION

The results have revealed that citizens of Punjab consider that the e-government system is useful and easy to use. The findings also show that perceived usefulness and perceived ease of use have a significant positive relationship with intention to use e-government. This result is consistent with (Tung, 2005; Carter & Belanger, The Utilization of E-Government Services: Citizen, Trust, Innovation and Acceptance Factors, 2005; Huang, E-government Practices at Local Levels: An Analysis of U.S. Countries Websites, 2006). Finally, the results suggest that the Punjabi citizen's gender and level of education play a critical role in using e-government services. This result is inconsistent with (Van Dijk, Peters, & Ebbers, 2008), who claim that social-demographic and psychological factors do not influence e-government acceptance and usage. It is well understood that the citizens who are well educated will continue to use the e-government services. Surprisingly, neither computer usage nor internet usage make much differences in terms of using e-government services. These findings are unexpected but it looks normal if we take into account that most of the research respondents have a good profile in using computers and internet. Future research could look other demographic variables such as income level, profession etc. Policy and decision makers should focus future efforts to raise the awareness of different groups within the community towards the availability of e-government services.

WORKS CITED

[1]. Adawi-AI, Yousafza, Z., & Pallister, S. (September,2005). Concpetual Model of Citizen Adoption of E-government. Second International Coneference on Innovations in Information Technology (IIT'05), (pp. 1-10). Dubai, United Arab.

[2]. Agarwal, R. (2000). Individual Acceptance of Information Technologies. In R. Z. (ed.), Framing the domains of IT management projecting the future through the past (pp. 85-104). Ohio: Pinnaflex Educational Resources Inc.

[3]. Al-Adawi, Z., Yousafza, S., & Pallister, J. (September,2005). Concpetual Model of Citizen Adoption of E-government. Second International Coneference on Innovations in Information Technology (IIT'05), (pp. 1-10). Dubai, United Arab.

[4]. Belanger, F. &. (2008). Trust and Risk in E-Government Adoption. Journal of Strategic Information Systems, vol.17, no.2, 165-176.

[5]. Belanger, F., & Carter, L. (2005). Trust and Risk in E-Government Adoption. Eleventh Americas Conference on Information Systems (pp. 1955-1964). NE, USA: Omaha.

[6]. Carter, L. &. (2005). The Utilization of E-Government Services: Citizen, Trust, Innovation and Acceptance Factors. Information System Jouranl, vol 15, no.1 , 5-25.

[7]. Choudrie, J., & Dwivedi, Y. (2005). A Survey of Citizens Awareness and Adoption of E-Government Initiatives, the 'Government Gateway': A United Kingdom Perspective. eGovernment Workshop'05, (pp. 1-13). West London,UK.

[8]. Dwivedi, S. K., & Bharti, A. K. (n.d.). E-GOVERNANCE IN INDIA – PROBLEMS AND ACCEPTABILITY. Jouranl of Theoretical and Applied Information Technology, 37-43.

[9]. Economy of Punjab. (2013). Retrieved November 30, 2013, from http://www.mapsofindia.com/: http://www.mapsofindia.com/punjab/economy.html

[10]. Gefen, D. (1997). Building Users Trust in Freeware Providers and Effects of this Trust on User's Perception of Usefullness, Ease of Use and Intended Use of Freeware. Georgia State University, USA: Ph.D. Thesis.

[11]. Gefen, D. (2002). Reflections on the Dimensions of Trust and Trustworthiness among Online Consumer. Database for Advances in Information Systems, vol.33, no.3, 38-53.

[12]. Gil Garcia, J., & Martinez Moyano, I. J. (2007). "Understanding the evolution of e-government:the influence of systems of rules on public sector dynamics". Governement Information Quarterly, vol.24, 266-290.

[13]. Gilbert, D. B. (2004). Barriers and Benefits in the Adoption of E-Government. International Journal of Public Sector Management , vol.17, no.4, 286-301.

[14]. Gupta, B., Dasgupta, S., & Gupta, A. (2008). Adoption of ICT in a Government Organization in a Devloping Country: An Empirical Study. Journal of Strategic Information Systems, vol.17, no.2, 140-154.

[15]. Huang, Z., & Bwoma, P. (2003). An Overview of Critical Issues of E-government. Issues of Information Systems, vol.4, no.1, 164-170.

[16]. Jaeger, P. (2003). The Endless Wire: E-government as Global Phenomenon. Government Information Quarterly, vol.20, no.4, 323-331.

[17]. Kumar, P., & Bhanti, P. (September 2012). Prospects of E-Governance in India. International Journal of Engineering and Innovative Technology, volume 2, issue 3, 335-339.

[18]. Kumar, V. m. (2007). Factors for Successful E-government Adoption: a Conceptual Framwork. Electronic Journal of e-government, vol.5, no.1 , 63-76.

[19]. Kumar, V., Mukerji, B., Butt, I., & Persaud, A. (2007). Factors for Successful E-government Adoption: a Conceptual Framework. Electronic Journal of e-Government, vol.5, no.1, 63-76.

[20]. Mahajan, P. (2009). E-Governance initiatives in India with Special Reference to Punjab. Asia Pacific Journal of Social Sciences, 142-155.

[21]. Malhotra, N., & Peterson, M. (2006). Basic Marketing Research: A Decision Making Approach, 2nd edition. New Jersey: Prentice Hall.

[22]. Malik, P., Priyanka, D., & Verma, P. (July 2014). Challenges and Future Prospects for E-Governace in India. International Journal of Science, Engineering and Technology Research, volume 3, issue 7, 1964-1972.

[23]. Mittal, P. D. (2013). E-Governance initiatives in the State of Punjab. International Journal of Research in Computer and Communication Technology, vol.2, issue 3, 108- 111.

[24]. Mittal, P., & Kaur, A. (2013). E-Governance initiatives in the State of Punjab. International Journal of Research in Computer and Communication Technology, vol.2, issue 3, 108- 111.

[25]. Mittal, P., & Kaur, A. (March 2013). E-Governance -A Challenge for India. International Journal of Advanced Research in Computer Engineering & Technology, 1196-1199.

[26]. Moon, M. (2002). The evolution of E-government among Municipalities: Rhetoric or Reality? Public Administration Review, vol.62, no.4, 424-433.

[27]. Palvia, S. C., & Sharma, S. S. (2007). E-Government and E-Governance: Definitions/Domain Frmaework and Status around the world. Retrieved July 10, 2011, from www.iceg.net: http://www.iceg.net/2007/books/1/1_369.pdf

[28]. Park, S., & Lemaire, J. (2011). Culture Matters: Long-Term Orientation and the Demand for Life Insurance. Philadelphia .

[29]. Patil, A. (2010, December 13). Going Local in India. Retrieved November 28, 2014, from http://booksite.elsevier.com/: http://booksite.elsevier.com/barnum/testingessentials/pdfs/06_Going_Local_in_India.pdf

[30]. Pavlou, P. (2003). Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the Technology Accepting Model. International Journal of Electronic Commerce, vol.7, no.3, 69-103.

[31]. Reddick, C. (2005). Citizen Interaction with E-government: From the streets to servers. Government Information Quarterly, vol.22, no.1, 38-57.

[32]. Riley, T. (2007). Strategies for the Effective Implementation of E-government Projects. Journal of Business and Public Policy, vol.1, no.1, 1-11.

[33]. SSingh, A. (2013). E-Governance in Punjab:Overview. International Journal of Advanced Research in Management and Social Sciences,vol.2, no.6, 172-184.

[34]. Singh, V. &. (n.d.). E-Governance in Punjab- A User Staisfaction Study. International Journal of Research in IT, Management and Engineering, vol. 2, issue 1, 47-56.

[35]. Singh, V., & Chander, S. (2014). E-GOVERNANCE IN PUNJAB- A USER SATISFACTION STUDY. International Journal of Research in IT, Management and Engineering, volume 2, issue 1, 47-56.

[36]. Singh, V., & Subhash, C. (2012). E-Governance in Punjab- A User Staisfaction Study. International Journal of Research in IT, Management and Engineering, vol. 2, issue 1, 47-56.

[37]. Singh, V., & Subhash, C. (2013). E-Governance in Punjab- A User Staisfaction Study. International Journal of Research in IT, Management and Engineering, vol. 2, issue 1, 47-56.
[38]. Singla, S. K., & Aggarwal, H. (April 2012). Impact and Scope of e-Governance Initiatives in State of Punjab (INDIA). International Journal of Computer Applications, volume 44, No-14, 5-9.
[39]. Tung, L. &. (2005). Adoption of Electronic Government Services Among Business Organizations in Singapore. Journal of Strategic Information Systems, vol.14, no.4, 417-440.
[40]. Van Dijk, J., Peters, O., & Ebbers, W. (2008). Explaining the acceptance and use of government internet services: A multivariate analysis of 2006 survey data in the Netherlands". Government Information Quarterly, vol.25, no.3, 379-399.
[41]. Vankatesh, V., Morris, M., Davis, G., & Davis, F. (2003). User Acceptance of Information Technology:Toward a Unified View. MIS Quarterly, vo.27,no.3, 425-478.
[42]. VVenkatesh, V., & Davis, F. (2000). A Theoretical Extension of the Technology Adoption Model: Four Longitudinal Field Studies. Management Science, vol.46, no.2, 186-204.
[43]. Verdegem, P., & Verleye, G. (2009). "User Centered E-government in Practice: A Comprehensive model for measuring user satisfaction". Government information Quarterly, vol.26, no.3, 487-497.