INFLUENCING FACTORS OF E-GOVERNMENT SERVICES ADOPTION IN BOSNIA AND HERZEGOVINA

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ABSTRACT

Worldwide, e-government is becoming very important in providing public services. Successful implementation of e-government depends on two sides. One side represents government with their view of e-government implementation, and at another side are citizens', NGO's and private sector as users of e-government services with their needs and views of e-government services. So, to make the successful implementation of e-government services, the government needs to take into account wishes (needs for digital services) of their citizens'. In that way, the government will prevent low-level of adoption and usage of e-government services, which is connected especially with developing countries. To address this issue, this study will try to identify key determinants affecting citizens' adoption and usage of e-government services in Bosnia and Herzegovina. For that purpose, study adopted UTAUT model to identify and explore determinants of citizens' adoption of e-government services. Regarding all previously mentioned, the main goal of this study can be defined as the way to identify key determinants affecting e-government adoption by citizens' in the state of Bosnia and Herzegovina. The survey results, conducted on a sample of 553 citizens' of Bosnia and Herzegovina, found that determinants social influence, effort expectancy and performance expectancy are statistically most influential determinants of citizens' adoption of e-government services. Also, citizens' adoption and usage of e-government services depend on citizens' age, level of education and internet experience. The conclusion can be that successful e-government services implementation greatly depend on citizens' adoption and usage of e-government services.

Keywords: e-Government adoption, public services, UTAUT

JEL Classification: D73, H49, H73

1. INTRODUCTION

E-government was introduced in the late 1990s and presents a new way of doing business at the government level. Many governments implementing e-government initiatives as a way of public service enhancement, with a goal to be more transparent, accountable, effective, efficient and citizen-centric.

After the e-government was introduced many governments all over the World are trying to move from the bureaucratic government's activities to e-governments services. This is even more important if we take into consideration citizens digital literacy, and business sector digitalization. Today, the customer is a "king" so they dictate what, when and where they need a service or product. So, governments must keep pace with this phenomena, and they need to grab it, in the way to be more competitive and to stay in power. Moraru (2010) emphasized that focusing on citizen' centric websites must be the main goal of government organizations. Successful e-government implementation depends on government resources on one side and on citizens' adoption of e-government services on another side. Adoption of e-government by citizens' depends on many factors such as services ease of use, availability of technology, citizens' gender, citizens' age, citizens' internet experience, effort expectancy, facilitating conditions, social influence, performance expectancy, citizens' level of education, information security, convenience, consumers' need etc. Understanding all those determinants of e-government adoption by citizens is crucial to governments in order to develop e-government services that will be targeted to citizens needs and that will be more accessible to citizens.

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Several researchers have studied the factors influencing citizen adoption of e-government in the contexts of various countries. However, existing research has not adequately provided a better understanding of the determinants that influence citizen adoption and acceptance of e-government in Bosnia and Herzegovina. The study presents a conceptual model of determinants that could influence citizen adoption of e-government services in Bosnia and Herzegovina. In this research, UTAUT model is used to examine the factors affecting the perception of the citizens to adopt and use e-government services in Bosnia and Herzegovina. Theoretical and empirical research in the area of e-government services adoption is a little known because there is a just a bit of research in this area. Carter and Belanger (2005) emphasize that e-government success depends on citizens' willingness to adopt and use of e-government services.

The subject of the study is the influence of e-government citizens' adoption factors on actual usage of e-government services. This study included 553 citizens of Bosnia and Herzegovina. To gather data's, study used a questionnaire, which was distributed to under survey citizens. Therefore, the research question can be formulated as *Which are the main factors influencing e-government adoption by citizens' in Bosnia and Herzegovina?*

The aim of the study is to identify the most important factors influencing citizens' adoption of e-government services in Bosnia and Herzegovina. The factors taken into the consideration are factors previously defined in UTAUT mode: gender, age, internet experience, education, effort expectancy, facilitating conditions, social influence and performance expectancy. The author's motivation to start this research is a fact that implementation of e-government concept in Bosnia and Herzegovina started in 2006 and until today it didn't move far away.

The study seeks to prove a hypothesis that effort expectancy, social influence and performance expectancy significantly influence the behavioral intentions to use e-government services and to prove the hypothesis that variables facilitating conditions, behavioral intentions, gender, age, internet experience and education significantly influence the e-government usage behavior.

The main contribution of this study is a fact this is a first conducted research in the field of e-government services adoption, and identification of key factors influencing citizens' adoption of e-government services in Bosnia and Herzegovina. Just this fact is a proof of the importance of this research, especially if we take into consideration that successful e-government implementation depends on citizens' adoption and usage of it.

The study is structured as follows: First part offers a brief summary of previous research on e-government adoption. Next part discusses the research strategy and methods. After that, the survey results are presented in the context of the related research, with a reliability and validity discussion. At the end of this study is the conclusion with implications, limitations, and suggestions for future research.

2. LITERATURE REVIEW

Gupta et al. (2016) stated in their research that adoption of e-government services has been defined in many ways. Some researchers defined adoption as the citizen's intention or their willingness to engage in e-government for receiving and providing information and requesting government services (Warkentin et al., 2002; Gilbert and Balestrini, 2004; Carter and Bélanger, 2005). Kumar et al. (2007) stated that e-government adoption represents a multidimensional construct, including the scope of usage, frequency of using e-government services, preference of the government website over other websites and preference of the online medium over other mediums of transactions with government.
Researches that have explored the factors of citizen adoption of e-government services are showed at Table 2.1. Gupta et al. (2016) stated that Carter and Bélanger (2003) have adopted the DOI model to study the citizens' adoption of e-government services in the United States of America (USA). They examine the impact of relative advantage, compatibility, ease of use and image, on the intention of citizens to use e-government services. The findings

of their study show that higher levels of relative advantage, compatibility and image are significantly associated with an increased intention to adopt e-government services. Also they analyzed work of Carter and Bélanger (2004) and Moore and Benbasat's (1991) which used the PCI model to identify fundamental elements of e-government adoption in the USA. Their study research the effects of relative advantage, compatibility, ease of use and image on citizen intention to use e-government services. The findings of their study showed that relative advantage, image and compatibility are significant factors in predicting citizen intention to use e-government services. Akman et al. (2005) founded that there are differences in gender, education and occupation between people using ICT.

Gupta et al. (2016) reviewing literature founded that Carter and Bélanger (2005) in another study, presented an integrated model for studying citizen adoption of e-government services in the USA, which captures individuals' perceptions of technology adoption characteristics and trustworthiness. Their model integrates constructs from various fields: information systems, sociology and public administration. They include constructs from TAM (PU, PEOU), DOI/PCI (image, relative advantage and compatibility) and trustworthiness models (trust of internet, trust of government) in their e-government adoption model. Their model explains 85.9% of the variance in citizen adoption of e-government and they find that PEOU, compatibility and trustworthiness significantly affect citizens' intentions to use e-government services. They suggest that higher levels of perceived trustworthiness are positively related to citizens' intentions to use e-government services.

Table 2.1. Researches on citizens' adoption of e-government (Gupta et al., 2016)

Model	*Studies*	*Study location (Country)*
UTAUT	Alawadhi and Morris (2008)	Australia
	Alawadhi and Morris (2009)	Australia
	Azam et al. (2013)	Pakistan
	Alryalat et al. (2013)	Jordan
	Khalil and Nasrallah (2014)	Kuwait
	Taiwo (2014)	Malaysia
	Alzahrani and Goodwin (2012)	South Arabia
	Voutinioti (2013)	Greece
TAM	Carter and Bélanger (2005)	USA
	Al Hujran et al. (2013)	Jordan
	Al-Hujran et al. (2011)	Jordan
	Mwangakala and Mvungi (2011)	Tanzania
	Dimitrova and Chen (2006)	USA
	Sahu and Gupta (2007)	India
	Padhi et al. (2010)	India
	Singh and Punia (2011)	India
	Maiga and Asianzu (2013)	Uganda
DOI	Carter and Bélanger (2003)	USA
	Phang et al. (2005)	South Asia
	Carter and Bélanger (2005)	USA
	Dimitrova and Chen (2006)	USA
	Patel and Jacobson (2008)	India
	Rokhman (2011)	Indonesia
PCI	Carter and Bélanger (2004)	USA
	Carter and Bélanger (2005)	USA
Trust	Warkentin et al. (2002)	USA
	Carter and Bélanger (2005)	USA
	Bélanger and Carter (2008)	USA
	Alsaghier and Ford (2009)	Australia
	Mwangakala and Mvungi (2011)	Tanzania
	Voutinioti (2013)	Greece
	Chiang (2009)	Taiwan
Citizen satisfaction	Kumar et al. (2007)	Canada
	Mwangakala and Mvungi (2011)	Greece
	Al Hujran et al. (2013)	Jordan

Hung et al. (2006) had examine the the public's acceptance of an e-government service in Taiwan. The findings of their study showed that PU, ease of use, perceived risk, trust, compatibility, external influence, interpersonal influence, self-efficacy and facilitating conditions are crucial factors in the adoption of online tax filing and payment system. To determine factors influencing the adoption of e-government services in a developing country Alawadhi and Morris (2008) used an amended version of UTAUT model. The findings of their study showed that performance expectancy, effort expectancy, peer influence and facilitating conditions significantly influence the adoption of e-government services. Gupta et al. (2016) in their e-government adoption literature review founded that Alzahrani and Goodwin (2012) proposed a model based on UTAUT that includes the characteristics of e- government, consideration and inclusion of trust, privacy and Saudi culture and context for studying citizen adoption of e-Government services in Saudi Arabia. They suggest that experience and voluntariness from UTAUT's moderating factors should be included in citizen's demographics while 'Saudi culture' should be added to the list of moderating factors. Investigating the constructs of UTAUT model supported with trust and security among Jordanians Alryalat et al. (2013) founded that trust, perceived security, facilitating conditions and social influence have a positive and significant influence on behavioural intention to use the e-government system.

Many other researchers all over the World have studied citizens' adoption and acceptance of e-government services in developed and developing countries using different models such as UTAUT model, integrated UTAUT model, WOM, TAM, DOI and PCI theories. The findings of these studies indicate that relative advantage and compatibility significantly impact the intention to use e-government services and that image and ease of use are not good predictors of intention to use e-government services in the state of Indonesia (Rokhman, 2011). Other results shows PU, PEOU, citizen satisfaction and trustworthiness are significant predictors of usage intention, and demonstrate that the citizen intention to use e-government services is highly influenced by his or her satisfaction (Al Hujran et al., 2013). Azam et al. (2013) and Alomari (2014) have investigated the impact of word of mouth and integrated UTAUT model in the states of Pakistan and Jordan. Their analysis reveals importance of considering the social cohesion of the Jordanian community when exploring factors related to e-government adoption and highlights that performance expectancy, social influence and initial trust positively influence the behavioural intention to use e-government services by Pakistani citizens'.

Regarding the fact that there is a various literature exploring a citizens' adoption and acceptance of e-government services in various developed and developing countries, there is no studies regarding e-government adoption that have been conducted in Bosnia and Herzegovina. Reason for this can be connected to the fact that e-government implementation and research in Bosnia and Herzegovina is in its early stages. It can be concluded, that there is no or there is a very little knowledge about influencing factors in Bosnia and Herzegovina of e-government citizen adoption and acceptance. This makes this study even more important, because the fact that this study will address this gap by providing a conceptual framework for theoretical and empirical understanding of the factors influencing the adoption of e-government services by citizens of Bosnia and Herzegovina.

3. METHODOLOGY AND RESEARCH MODEL

This study uses secondary and primary data. Secondary data refers to data for social science include censuses, information collected by government departments, organizational records and data that was originally collected for other research purposes. Primary research of this study following a quantitative approach uses a survey to understand citizens' perceptions regarding e-Government adoption. A UTAUT model was constructed to test citizens' intention to use e-government services. The model places the constructs used in previous literature into the consistent theoretical framework provided by UTAUT.

A measurement instrument (questionnaire) was created to empirically validate the proposed model. The items of the questionnaire were based on previous empirical studies. The questionnaire was structured into various sections with a total of 36 closed-format

questions. The questionnaire utilized the five-point Likert scale (from strongly disagree to strongly agree) to measure different scale items.

The survey was conducted on a sample of n = 600 citizens of Bosnia and Herzegovina. The participation in the experiment was done on a voluntary basis and all respondents were familiar with the specific website since a familiarization task was involved, and a total of 573 valid responses were returned. Out of this number, 20 had to be rejected as the respondents rounded more than one answer to the question where only one answer should be given. This means that 553 were used for further processing, which met all research requirements. Methods used in the research are deductive and inductive methods, methods of analysis and synthesis, comparative methods, statistical methods (descriptive statistics, regression and correlation analysis, factor analysis), methods of polling. SPSS Statistics was used for statistical analysis of collected data.

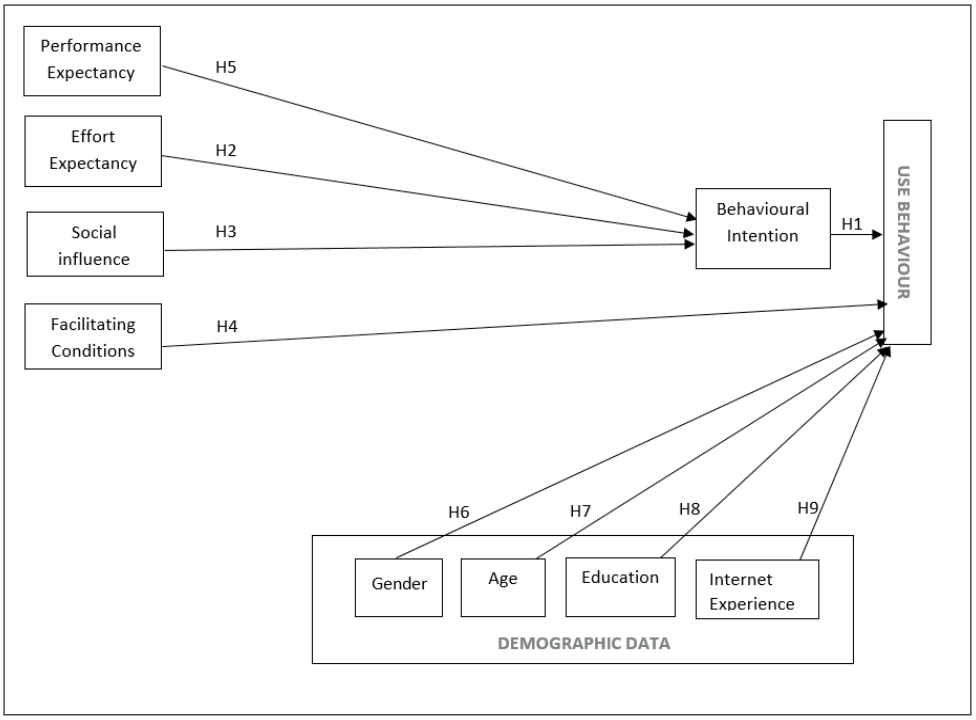

Figure 2.1. Proposed conceptual model (Venkatesh et al., 2003)

4. SURVEY RESEARCH FINDINGS

The survey questionnaire was distributed to a total of 600 citizens between the period of February and April 2018. From 600 questionnaires distributed, 573 responses were received. Of the 573 completed and received, 20 questionnaires were discarded (because the respondents gave more than one answer to a question that expected only one answer) and some questions were unanswered. This meant that, from the final sample of 573 questionnaires, 553 usable responses were obtained and used for all subsequent analysis. The total response rate obtained in this research was (95.5%).

Of these 553 usable respondents, the demographic background is 60.6% were females, while 39.4% were male. In terms of age group, the results showed that the largest percentage of respondents were in the age group of 30-44 (52.6%), followed by the age group of 45-54 constituting around (16.5%) of the total respondents. The age group >54 consisted of (14.5%), whilst the age group 25-29 comprised of (10.5%) of the total respondents. In contrast, the youngest (less than 18) and the 18-24 age groups together consisted of (5.9%) of the total respondents. In terms of educational backgrounds, the majority of respondents (46.8%) hold high school education, (30.6%) hold College graduated and (22.6%) hold either elementary school certificates or Masters and Ph.D.

Table 4.1. Respondents demographic background

		Frequency	%		Frekvencija	%	
GENDER	Male	218	39.4	Elementary school	19	3.4	EDUCATION
	Female	335	60.6	High school	259	46.8	
AGE	<18	3	0.5	Undergraduate	59	10.7	
	18 - 24	30	5.4	Bechelor, 180 ECTS	24	4.3	
	25 - 29	58	10.5	Colledge graduated	169	30.6	
	30 - 44	291	52.6	Postrgaduate	23	4.2	
	45 - 54	91	16.5	Do not use	30	5.4	INTERNET EXPRIENCE
	>54	80	14.5	1 - 6 months	3	0.5	
				7 - 11 months	5	0.9	
				1 - 2 Years	38	6.9	
				3 - 4 Years	78	14.1	
				>4 Years	399	72.2	

The results of internet experience variable testing revealed that the majority of respondents (72.2%) were found in the group of over 4 years of internet experience. This was followed by the internet experience group of 3-4 years, constituting (14.1%) of the total respondents, and finally, the internet experience group of 1-2 years, constituted (6.9%). In contrast, the groups with the least internet experience (no experience, 1-6 months and 7-12 months) together consisted of (6.8%) of the total respondents, (see Table 4.1.).

Table 4.2. Cronbach's coefficient alpha values

Construct	N	Number of items	Cronbach's Alpha	Type
Performance Expectancy	553	8	0.866	High Reliability
Effort Expectancy	553	5	0.817	High Reliability
Social Influence	553	7	0.755	High Reliability
Facilitating Conditions	553	6	0.762	High Reliability
Behavioural Intention to Use	553	3	0.897	High Reliability
N = Sample Size				

Table 4.2. show the values of Cronbach's coefficient alpha. This coefficient showed that the constructs achieved high reliability (from 0.70 to 0.90). This means the study's instrument is reliable and the higher the Cronbach's (α) value of construct, the higher the reliability is of measuring the same construct (Dwivedi et al., 2006).

Table 4.3. showed the values of Kaiser-Meyer-Olkins (KMO) measurements and Bartlett's test of sphericity. Values of KMO are >.900 which means that are very significant, where the coefficient of significance p <0.005 which represents a very high significance.

Table 4.3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.919
Bartlett's Test of Sphericity	Approx. Chi-Square	19,887.21
	df	1,225.00
	Sig.	0

In Table 4.4. results of factor analysis with varimax rotation was used to evaluate construct validity and it can be concluded that all of the items are loaded properly in the construct discernment validity, loaded with at least .40 (Dwivedi et al., 2006; Carter et al., 2008). The factor analysis results satisfied analysis. This means that the collected data and the findings that were obtained from this instrument are valid and reliable. Findings from the reliability test and the factor analysis confirm internal consistency of measures and construct validity.

In Table 4.5. are presented the means and standard deviations of the items related to all 6 constructs included in the study. The descriptive statistics values are quite high and the standard deviation is not greater than 1 except in three cases, which tells us about the representativeness of the arithmetic mean and homogeneity of the set.

Table 4.4. Rotated Factor Matrix

Rotated Factor Matrix					
ITEMS	**Factor**	**Factor Loading**	**Varijable**	**Faktor**	**Faktorsko opterećenje**
Performance Expectancy			**Social Influence**		
	PE1	0.504		SI1	0.672
	PE2	0.545		SI2	0.689
	PE3	0.759		SI3	0.366
	PE4	0.658		SI4	0.751
	PE5	0.708		SI5	0.638
	PE6	0.757		SI6	0.564
	PE7	0.690		SI7	0.713
	PE8	0.545	**Facilitating Conditions**		
Effort Expectancy				FC1	0.736
	EE1	0.567		FC2	0.729
	EE2	0.430		FC3	0.830
	EE3	0.563		FC4	0.473
	EE4	0.580		FC5	0.654
	EE5	0.728		FC6	0.592
Behavioural Intention			*Extraction Method: Principal Component Analysis.*		
	BI1	0.764	*Rotation Method: Varimax with Kaiser Normalization.*		
	BI2	0.795			
	BI3	0.767			

Table 4.5. Descriptive statistics

Factors	N	Mean	Std. Dev.	Factors	N	Mean	Std. Dev.
Performance Expectancy				**Social Influence**			
PE1	553	4.05	0.917	SI1	553	3.64	0.896
PE2	553	4.02	0.986	SI2	553	3.67	0.911
PE3	553	3.82	0.936	SI3	553	3.72	0.871
PE4	553	4.00	1.063	SI4	553	3.60	1.041
PE5	553	3.76	0.972	SI5	553	4.10	0.751
PE6	553	3.83	0.772	SI6	552	3.58	1.034
PE7	553	3.81	0.790	SI7	553	3.79	0.959
PE8	553	4.15	0.791	**Facilitating Conditions**			
Effort Expectancy				FC1	553	3.83	0.956
EE1	551	3.87	0.982	FC2	551	3.97	0.821
EE2	551	4.11	0.878	FC3	553	4.07	0.867
EE3	551	3.99	0.831	FC4	552	3.80	0.881
EE4	553	3.88	0.810	FC5	553	3.58	0.919
EE5	553	3.88	0.852	FC6	553	3.61	0.861
Behavioural Intention				Notes: SD = Standard Deviation.			
BI1	553	3.98	0.753	** Scores range from 1 to 5, where 1 = Strongly Disagree and 5 = Strongly Agree			
BI2	553	3.96	0.764				
BI3	553	3.99	0.782				

From Table 4.6. it can be seen that there is no statistical relation between e-government adopters and gender, while other variables the age, education and internet usage gained values which are a statistically significant link between the aforementioned variables and the e-government services adoption.

Table 4.6. The Pearson's chi-square test and binary correlation test

Varijabla	Pearson X^2	Cramer's v coefficient	df	p	Spearman's rho Correlations	p
Gender	0.003		1	0.954		
Age	17.927	0.180	5	0.003	-0.103	0.016
Education	34.831	0.251	5	0.000	0.194	0.000
Internet Experience	129.678	0.484	5	0.000	0.344	0.000

The binary correlation test using Spearman's coefficient was conducted to examine the correlation (Table 4.6.). The findings of this examination showed there is no correlation between men and women regarding the usage of e-government services (p>.005) while the other predictors related to which they are qualified with a negative sign. This is probably because today and both men and women are computer literate and use modern information technology to a great extent, which was not the case at the time when e-government was first introduced to the public.

A regression analysis was performed with behavioral intention as the dependent variable and effort expectancy, performance expectancy and social influence as the predictor variables. A binary correlation test was conducted to examine the association between Performance Expectancy (PE), Effort Expectation (EE), and Social Influence (SI) and Behavioural Intention to adopt e-government. The results of this test are shown in Table 4.7. The correlation is significant to all the factors: performance expectancy (0.458), social influence (0.435) and effort expectancy (0.494).

Table 4.7. A binary correlation test

		Behavioural Intention to Adopt E-government
Performance Expectancy (PE)	Pearson Correlation	.458**
	Sig. (2-tailed)	0
	N	553
Effort Expectancy (EE)	Pearson Correlation	.494**
	Sig. (2-tailed)	0
	N	553
Social Influence (SI)	Pearson Correlation	.435**
	Sig. (2-tailed)	0
	N	553
*** Correlation is significant at the 0.01 level (2-tailed).*		
* *Correlation is significant at the 0.05 level (2-tailed).*		

Table 4.8. Regression Analysis I: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.661	0.437	0.427	1.584

a Predictors: (Constant), Performance Expectancy, Effort Expectancy, Social Influence

Table 4.9. Regression Analysis I: ANOVA(b)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1056.427	9	117.381	46.764	0.000(a)
	Residual	1362.962	543	2.51		
	Total	2419.389	552			

a Predictors: (Constant), Performance Expectancy, Effort Expectancy, Social Influence

b Dependent Variable: Behavioural Intention to Adopt E-government services

Table 4.10. shoes the values of dependent variables that include effort expectancy (= .296, p < .005), social influence (= .190, p < .005) and performance expectancy (= .132, p < 0.005) and their influence on behavioural intention to adopt e-government.

Table 4.10. Regression Analysis I: Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t-test	Sig.
	B	Std. Error	Beta (β)		
(Constant)	2.647	0.535		4.951	0.000
Performance Expectancy	0.540	0.017	0.132	3.106	0.002
Effort Expectancy	0.183	0.026	0.296	6.938	0.000
Social Influence	0.096	0.020	0.190	4.874	0.000

The dependent construct that measures the e-government adoption behavior is categorical in nature and represented by (Yes) and (No). Number (1) represents yes, when the particular respondent chose e-government and (0) to represent no, if they have not used e-government. The logistics regression model was chosen because it was found to be most appropriate for estimating the factors which influence e-government adoption behavior. Also, the logistics regression analysis had been chosen as a result of the limitation of the Linear probability model which might predict probability values beyond the (0), (1) range (Greene, 1997).

Table 4.11. Logistic Regression II: Omnibus Tests of Model Coefficients

		H^2	Df	p
	Step	49.434	2	0.000
	Block	49.434	2	0.000
Step 1		49.434	2	0.000
	Model			

Table 4.12. Logistic Regression II: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	541.664 (a)	0.086	0.130

A logistic regression analysis was conducted with e-government adoption behavior as the dependent variable and facilitating conditions and behavioral intention as the predictor variables. The full model was considered to be significantly reliable (X2 (2, N= 553) = 49.434, p < .005) see Table 4.11. This model accounted for between 8.6% and 13% of the variance in e-government adoption see Table 4.12., and 79.2% of the e-government adopters were successfully adopted (Table 4.13.). Moreover, 98.8% of the predictions for none-government adopters were accurate, and overall predictions were accurate by 79.2% (Table 4.13).

Table 4.13. Logistic Regression II: Classification Table

Observed			Predicted		
			E-government Adoption Behaviour		Percentage Correct
			Yes	No	1,00
Step 1	Have you adopted any E-government service	Yes	5	423	98,80
		No	15	110	12,00
	Overall Percentage				79,20

The following Table 4.14. describes the coefficient, Wald statistics, associated degrees of freedom and probability values for all of the predictor variables. Table 4.14. shows that predictor variable facilitating conditions has not statistically important influence on e-government adoption. Also, table 4.14. shows that predictor variable behavioral intention to adopt e-government has the statistically important influence on e-government adoption by citizens'. The coefficients values expose an increase in behavioral intention score is associated with an increase in the odds of e-government adoption by a factor of (1.381).

Table 4.14. Logistic Regression II: Variables in the Equation

	B	S.E.	Wald	Df	Sig.	Exp (B)	95% C.I. For EXP (B)	
							Lower	Upper
Facilitating Conditions (FC)	0.026	0.032	0.675	1	0.411	1.027	0.964	1.093
Behavioural Intention (BI)	0.323	0.057	32.11	1	0.000	1.381	1.235	1.544
Constant	-3.111	0.771	16.265	1	0.000	0.045		

) entered on step 1: Facilitating Conditions, Behavioural Intention to Adopt E-government

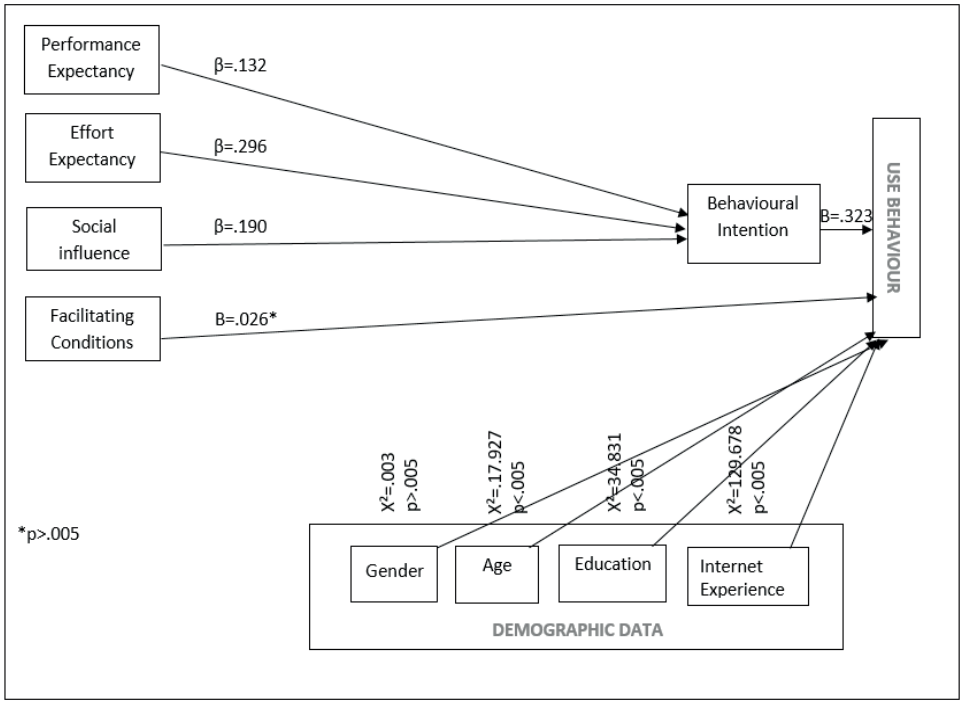

Figure 4.1. Validated Factors Affecting E-government Adoption in Bosnia and Herzegovina

The Figure 4.1. shows the results of the aforementioned validation factors that affected the e-government adoption in the state of Bosnia and Herzegovina. Also, at the same time, they represent results of hypotheses testing.

5. RESULTS AND DISCUSSION

Results discussion was conducted in the chapter 4., so it will not be repeated, again. This chapter will discuss the validation and findings obtained on the adoption of the e-government system. Results showed that the reliability test was confirmed that the measures were internally consistent, as all of the constructs possessed a Cronbach's alpha above (0.70). The construct validity was established utilizing the Principal Component Analysis with varimax rotation. Results indicate that the collected data and the findings that were obtained from this instrument are valid and reliable. Findings from the reliability test and the factor analysis confirm internal consistency of measures and construct validity. Findings from descriptive statistics imply that all the constructs rated strongly in the (1-5) Likert scale. This concludes that the respondents showed strong agreement with factors included in the study. Examination of the demographic differences (gender, age, education and internet experience) as a social variable by employing the Pearson chi-square test, the results show that the e-government adopters in the state of Bosnia and Herzegovina differ significantly in terms of age, education level, and internet experience, while gender does not have significant influence on e-government adoption. This is probably because, today, both men and women are computer literate and use modern information technology to a great extent, which was not the case when e-government was first introduced to the public. Linear regression analysis provided evidence that independent variables: effort expectancy, performance expectancy, and social influence significantly explain dependent variable: behavioral intentions to adopt e-government. This shows that it is essential to incorporate the concerns of citizens in the state of Bosnia and Herzegovina with regard to their effort and performance expectancies and social influence. Finally, the logistics regression analysis provided evidence that behavioral intentions (independent variable) significantly explain the e-government adoption behavior (dependent variable) which supports prior theoretical findings (Venkatesh et al., 2003), whilst facilitating conditions were not considered to be a significant predictor in this model. This shows that the role of the constructs of facilitating conditions, since where all the items of facilitating conditions where loaded together, should be examined separately in investigating e-government adoption.

6. CONCLUSION

The e-government literature has emphasized the fact that citizens who use e-government will benefit from the services and be encouraged to adopt e-government services. Empirically, this study has shown that if e-government provides more benefits to its citizens in a manner of accessibility and prompt services, more transparent and accountable work, more efficient and effective work of public administration when compared to the traditional means, this practice might spread the use of e-government services throughout the Bosnia and Herzegovina.

The study proved hypothesis that effort expectancy, social influence and performance expectancy significantly influence the behavioral intentions to use e-government services and to proved the hypothesis that variables behavioral intentions, age, internet experience and education significantly influence the e-government usage behavior.

The study has identified next conclusions that have emerged from the analysis presented in the study:

- The authors founded that there is a little or no studies regarding factors influencing citizen adoption and acceptance of e-government in the Bosnia and Herzegovina.
- Successful implementation of e-government project is not possible without essential citizen adoption and acceptance of e-government services and their participation in e-government initiatives.
- Factors that have the most significant influence on e-government adoption by citizens' in Bosnia and Herzegovina are: performance expectancy, effort

expectancy and social influence. From the literature review authors identified that the following factors can influence e-government adoption, such as security concerns, intention to use, e-government use behaviour, age, internet experience, lack of access to e-government services, trust, literacy levels of people, computer literacy and the digital divide.

- The study also identified that demographic variables age, education and internet experience have a statistically significant impact on citizens' adoption of e-government services in Bosnia and Herzegovina.

Factors discussed in this study that influence on citizens' intention to use e-government services should be examine in further research, in the way to determine the direct impact of these factors on e-government adoption. Further research should take in the consideration influence of government employees, NGO's and business sector on the e-government implementation and adoption.

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