

# Exploration of factors that affect the desire of citizens to adopt e-government services: An empirically study on Bangladesh

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## ABSTRACT

**Purpose:** This study aims to look at the factors that impact citizen's intentions to adopt e-government services in public sectors through the unified theory of acceptance and use of technology (UTAUT). **Methodology:** Recently, evolved organized poll is utilized exactly in this proposed research model. The sample size is 310 Bangladesh citizens. The questionnaire has been altogether inspected to comprehend the unwavering quality and the legitimacy while dissecting the information structural equation modeling method and AMOS apparatuses have been used. **Findings:** Performance expectancy, social influence, facilitating conditions, website quality, and internet experience (IE) fundamentally influenced conduct behavioral intent were the general outcomes that take up e-government services. Nevertheless, the standard of behavior does not rely on effort expectancy (p-estimate evaluated > 0.05). **Implications:** Policy-makers and decision-makers used the result of this study for the advancement of a better intellectuality of citizens' needs. Furthermore, this study emolument was useful to enhance a lot of website designers should pay online users of e-government services more concentration to furthermore. Once more, the result of this study will deliver great worth recommendations through e-government to develop the regulation of ecumenical services. **Originality/Value:** To exploring the adoption of the e-government services, this paper is exhausting the UTAUT model. Like the anterior study, this research drives the signification of certain aspects that require to be deemed; meanwhile, the aim stands to e-government services reception in underdeveloped countries, more specifically in Bangladesh. Finally, adding a new construct by the authors contributed to the existing literature, which refers to website quality and IE.

**Key words:** Adoption, Bangladesh, e-government, underdeveloped countries, UTAUT model

**JEL Classification:** H83, O33

## INTRODUCTION

At present, e-government in many developed and developing countries around the world has become a popular focus for government efforts. Several of these

countries have advanced to accomplish and adapt their e-government services and systems. The e-government services are designed to provide reliable services to citizens with more accessible, accurate, real-time, and high-quality information. In Bangladesh, the conduct of Information and

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Communication Technology (ICT) in government functions has to turn into a conventional phenomenon in current years (Akther et al., 2007). In 2004, the Bangladesh Enterprise Institute carried out the e-government report in Bangladesh. In 2002, the Government of Bangladesh has adopted a National IT Policy that reveals a strong commitment to attaining e-governance in Bangladesh. Bangladesh's IT Policy aims to create an IT nation that consists of a wisdom-based society by 2010 (Sobhan et al., 2004). At the end of the 1990s, ICT started a new public administration online learning program (Sobhan et al., 2004). To date, various innovations have been used to enable the unusual features of e-government: Electronic data sharing, interactive voice replies, voice mail, correspondence, distribution of web services, virtual reality, and central public infrastructure (Hasan, 2003). The Hoque (2005) research highlights the e-government services of the Ministry of Establishment of the Republic of Bangladesh.

E-Government services are not only information on the web; they need a clear understanding of people's needs and needs (Kaliannan et al., 2007). The related research to introduce the e-government in Bangladesh is quite negligible. In the context of Bangladesh, a variety of styles of research has been done. Salam (2013) examined the public websites and e-government platform activity of respondents in Bangladesh. Another Alam (2012) study has analyzed existing e-government labyrinths and presented potential ideas for further progress. According to (Islam et al., 2012) propose e-government or Digital Bangladesh to strategic instrument management of the human resources, improving the IT infrastructures, reducing the obligation on resources, and trained IT staff at the popular level. Rokon-Ul-Hasan et al., (2013), however, focuses on government officials' policies and regulatory frameworks and does not replicate private organization's e-governance efforts. Research by (Tahir et al., 2013), highlights the involvement of government and private start-ups as well as NGOs in adopting e-government policies and regulatory structure. According to (Talukder et al., 2014) advises the development of e-government in Bangladesh, according to the role model countries such as Singapore, USA, EU, etc. However, several other researchers have highlighted growing challenges and barriers to e-government adoption in Bangladesh. In (Hossain, 2005), concluded that if the e-government cannot be spread worldwide, the accessibility to the e-government may be restricted to the minimum portion of urban residents.

Many previous studies have examined citizens' plan to use e-government services (Chatzoglou et al., 2015). Now developing countries, the pace of adoption of e-government

is sluggish relative to that of emerging countries due to a variety of problems. Nevertheless, these experiments have failed to reach consensus, whereas most of their empirical findings are relatively straightforward. A wide range of variables influences government acceptance in developing countries such as Bangladesh. It is essential to understand and solve these problems for Bangladesh to implement and use e-government services successfully.

- What are the significant factors perceived by citizens' that influence the interactive intention to adopt e-government services in Bangladesh?

The key purpose of the present paper is to explore the issues influencing the desire of people to utilize online government facilities through the implementation of the unified theory of acceptance and use of technology (UTAUT) model. The UTAUT is an analytical model that conglomerates eight major adoption frameworks with extensions of technology. A set of variables that have never been systematically discussed before are included in the proposed conceptual framework. The importance lies in its in-depth results, observations, and methodological consequences. In the following section, the literature review is conducted shortly, and in Sections three and four, the proposed design method and the research hypothesis are explored. The analysis methods will be discussed in the fifth segment, and its main findings and assumptions will be concluded.

## LITERATURE REVIEW

The analysis of electronic governance has been growing in recent years, allowing researchers to create specific theoretical and conceptual frameworks to understand better the various aspects of electronic governance (Lakka et al., 2013). The use of technology adoption models was clear from the very beginning in the study of e-government adoption. Therefore, apprehending multiple models and their related constructions in technology adoption are very important. Table 1 shows earlier studies defining proportions, associated latent variables, and calculating specific measurements based on different models that have systematically impacted decision-making on e-government services.

The analysis aims and the dependable and in dependable component were driven in this model. The study sorts to evaluate research involving electronic services, the evolution of electronic government, and how ICT infrastructure, level of education, demographic factors,

**Table 1: Proposed factors affecting the decision to adopt E-government service**

Authors (Year)	Country	Model	Target Area	Sample size	Objectives	Key findings
(Alshehri et al., 2012)	Saudi Arabia	UTAUT Model	Public sectors	400	Looks for the prime factors of Saudi citizens' e-govt. adoption	Performance expectancy, effort expectancy, and facilitating conditions.
(Zafiroopoulos et al., 2012)	Greece	The extended TAM, and DOI Theory	Teachers	230	Assessing the Acceptance of e-government Services.	Faith, comprehended risk, compatibility, relative advantage, job relevance, perceived usefulness, and perceived ease of use
(Chatzoglou et al., 2015b)	Greek	TAM2, and DOI Theory	Middle and Old age	547	Examining the factors that affect the desire of people to use e-government services.	Comprehended usefulness, comprehended faith, internet experience, peer influence, computer self-efficacy, and perceived risk.
(Mayasari et al., 2017)	Jakarta	Extended TAM Model	Govt. Officer	414	To analyze the implementation of the e-government of the users.	Perceived use, perceived ease of use, the perceived risk, and the subjective norm
(Bataineh and Al-Mutawa, 2016)	UAE	TAM Model	General Directorate	466	Identify the perceptions of potential end-users relating to factors which impact on e-services acceptance	Ease of use and perceived usefulness, trust
(Alomari et al., 2012)	Jordan	TAM, and DOI Theory	University Students	400	Explores the measurement of social factors in e-government adoption	Trust in terms of security and privacy and trust in government, attitudes and beliefs, internet and computer skill confidence, and website design.
(Alateyah et al., 2013)	Saudi Arabia	TAM, and DOI Theory	All Group Citizen	20	Factors Affecting the Citizen's Intention to Adopt E-government.	Quality, computer and information literacy, culture, lack of awareness, technical infrastructure, website design, and security.
(Gao, 2013)	USA	TAM, DOI, and UTAUT Model	College Students	147	To develops a two-stage model of factors influencing e-government acceptance.	Perceived usefulness, trust, and compatibility, perceived in formativeness, perceived ease of use and trust.

*(Contd...)*

Table 1: *Continued*

Authors (Year)	Country	Model	Target Area	Sample size	Objectives	Key findings
(Mensah et al., 2017)	China	UTAUT Model	African Students	500	To explore the predictors determining the willingness of African students in China to adopt and use e-government services.	Performance expectancy, effort expectancy, social influence, facilitating conditions and culture.
(Alzahrani and Goodwin, 2012)	Saudi Arabia	UTAUT Model	Government Officers	169	To assess E-government citizen acceptance	Consideration and inclusion of trust, privacy
(Baishya et al., 2017)	India	UTAUT Model	Middle Age	166	Explore the factors influencing the acceptance of e-district services by the citizens.	Perceived usefulness and facilitating conditions, effort expectancy, and social influence.
(Ahmad et al., 2014)	Pakistan	UTAUT Model	Older	115	To explore the factors that enable end-user adoption of e-government services.	Performance expectancy, effort expectancy, facilitating conditions, and social influence.
(Yarlıkaş et al., 2012)	Turkey	TAM Model	Teachers	30	Identifies user satisfaction levels of e-government services.	Ease of use, system usefulness, system content, system usability, and ease of use.
(Arduini et al., 2013)	Italy	TAM Model	The Citizen of the Municipality	389	Factors that influence the adoption of e-services.	Perceived ease of use, and perceived usefulness.
(Suki et al., 2010)	Malaysia	TAM Model	Older	200	Identifies the factors that determine users' acceptance of e-government services.	Comprehended usefulness, ease of use, self-efficacy, facilitating conditions, and inward norms.
(Mobahi, 2012)	Iran	UTAUT Model	Government Employees	100	To the adoption of E-government services by government employees.	Effort expectancy, and performance expectancy, and social influence.
(Almuraqab and Information, 2017)	UAE	TAM, and DOI Theory	Citizens	85	Investigates the factors that affect the intention of natives to use m-govt.	Compatibility, perceived ease of use, social influence, and trust in technology.

security, and privacy affected access to electronic government services through an electronic government program. The literature review also covers the thoughts

of several authors regarding e-governance, the appearance of electronic governance, and influencing factors of e-government in different countries.

## RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

The UTAUT model is one of the significant improvements in general technology acceptance models. This aims to interpret user intent for the use of the information system (IS) and to improve usage behavior, as did previous recognition and adoption models. According to (Venkatesh et al., 2003), produced a more comprehensive picture of the acceptance procedure in this synthesized model than any previous individual model had. In IS literature, eight constructs have been developed into an integrated model that is all focused on psychology, sociology, and communication. The model is TRA, TPB, TAM, TAM2, the Computer Use Motivational (MM) (Igbaria et al., 1996), the PC Using Model (MPCU) (Thompson et al., 1991), and the SCT (Bandura, 1977). Each model aims for a range of independent variables to predict and to analyze user behavior. The UTAUT maintains that four key buildings (expectation of performance, expected effort, social influence (SI), and conditions facilitating) are straight factors or predictors of the purpose of and conduct of use (Venkatesh et al., 2003). In comparison to those other hypotheses, UTAUT offers a better understanding of user awareness and the use of technologies (AlShafi and Weerakkody, 2009). This implies that a person's ability to use a particular instrument is affected by performance, ambition, and SI. Moreover, the theory suggests the intention of a consumer to use a given technology (compartmental purpose) and to promote circumstances usually influence the real use of technology (compartment) by the user. From the above discussion, we can make our conceptual framework, which is delineated in Figure 1. The proposed hypotheses are explained in the following section.

### Performance Expectancy (PE)

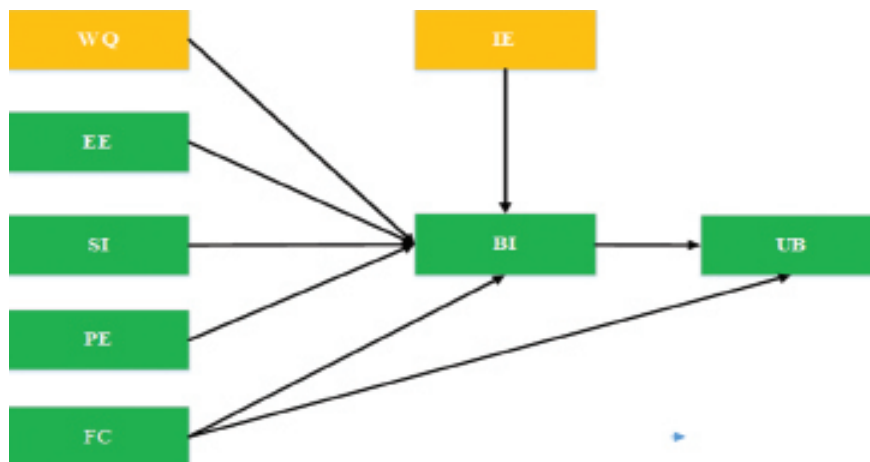
PE can be clear as a way of understanding individuals to use a program and the degree of confidence in the fulfillment of the process (Venkatesh et al., 2003). There are five builders of various models which lead us to performance. These include perceived usefulness (Davis, 1989; Venkatesh and Davis, 2000; Taylor and Todd, 1995), inspiration from abroad (Davis et al., 1992; Rogers 2004), and expectations of consequences (Compeau and Higgins, 1995). They come from various models (Venkatesh et al., 2003; Al-Shafi, 2010). These are variants. Based on these studies, the current study posits the following hypothesis:

H<sub>1</sub>: PE has a significant influence on the adoption attitude toward citizen's BI to use E-government services.

### Effort Expectancy (EE)

In this study, the e-government programs' resource use has been defined as a convenience, and the EE variables are stated using the dimension of ease associated with using a given program (Al-Shafi and Weerakkody 2010; Venkatesh et al., 2003). It is simple to use (Davis, 1989; Venkatesh and Davis, 2000); it is nuanced (Thompson et al., 1991). We are all based on another trend (Venkatesh et al., 2003). The related research hypothesis to EE is:

H<sub>2</sub>: EE has a significant impact on the adoption outlook to citizen's BI to use E-government services.



**Figure 1:** Research model. PE: Performance expectancy, EE: Effort expectancy, SI: Social influence, WQ: Website quality, FC: Facilitating conditions, IE: Internet experience, AA: Adoption attitude, BI: Behavioral intention, UB: Use behavior

## SI

The vital role played by close people, friends, family, and colleagues in choosing to use a particular technology is demonstrated through SI (Venkatesh et al., 2003). Components of other people in the social and work cycle of a product have a significant impact on technological adoption on user activities. SI is described as a colonial power to visually defining determinants of BI as three builders (Ajzen, 1991; Davis, 1989; Taylor and Todd, 1995; Venkatesh and Davis, 2000) and imager. Such three designers have a meaningful impact when the consumers must use a mandatory program which is not automatic (Venkatesh et al., 2003). Previous research has shown that SI is among the significant inputs for the intention of consumption (Abu-Shanab, 2014; Dahi and Ezziane, 2015). Based on these prior studies, the current study revealed the following hypothesis:

H<sub>3</sub>: SI has a significant impact on the adoption attitude toward citizen's BI to use E-government services.

## Facilitating Conditions (FC)

FC is the level to which a person considers that an organizational and technical structure permits the use of a system (Venkatesh et al., 2003). This showed three core buildings: Systematic behavioral laws (Ajzen, 1991); simplifying conditions (Thompson et al., 1991); and coherence (Rogers, 2004). This definition was based on three key concepts: The FC is very essential to hire a product or service so that it is easy to use with the right environment, equipment, and resources. The system's actual use is directly predicted (Venkatesh et al., 2003). With various studies (Balaid et al., 2013), the direct influence of FC on BI is proposed. As per the above discussion, the following hypothesis was posited:

H<sub>4</sub>: FC has a significant effect on citizen's BI to use E-government services.

H<sub>4.1</sub>: FC has a significant effect on UB of e-government services.

## Website Quality (WQ)

WQ can be defined as the excellence of the website's structural design, which was relied on various ethics including technical excellence, content excellence, and appearance excellence (Aladwani, 2006). It is confirmed that the importance of WQ and the significant effects, it has on the adoption of e-government services. It is also mentioned that the government websites appear to be secure and safe, and

they are confident they can complete their connections with the government through those websites. The information and service quality of government websites are still less than the expectations level of citizens, which affect the actual use of e-government services. The website's quality construct is added in the UTAUT model as extended independent variables for their direct influence on the citizen's behavioral intention. The above answer makes it very easy to say that the quality of excellence has an impact on people's behavior and the use of e-government services. The following hypothesis was raised in line with the above discussion:

H<sub>5</sub>: We must have a significant effect on the adoption attitude toward citizen's BI to use e-government services.

## Internet Experience (IE)

The public's lack of internet knowledge, in particular in ICT is the primary factor affecting the adoption of electronic governance. The key reason for the absence of IT adoption, (Pons, 2004) found, is the heavy illiteracy. The most common use of information and services from e-government comes from people who have experienced the use of internet as a technology (Jaeger and Thompson, 2003; Thomas et al., 2003). Based on the empirical results, IE has a positive influence on the offer (Corbitt et al., 2003). The same conclusion was reached with (Cho, 2004), which states that experienced internet users can carry out online transactions more often if they feel the urge to do so. Alenezi and Karim (2010) agreed that higher IE corresponds to more robust BI results. Nevertheless, IE has a substantial impact on internet use (Lohse, Bellman and Johnson, 2000). It is worth considering that this is also the case with e-government services. Internet know-how is, therefore, a critical forecast for Bangladesh's e-government adoption. Thus, the hypothesis becomes:

H<sub>6</sub>: IE has a significant effect on citizen's BI to use E-government services.

## Behavioral Intention (BI)

The purpose of BI is to use new technology when it is essential for the person to check the use of a program by BI (Venkatesh and Bala, 2008). BI is closed. Venkatesh et al. (2003) claimed that it is necessary to know how the user's behavior must be objectively calculated. Because the e-government Walt study was absent, the review of the UTAUT model was used to examine the factors that influence the adoption (Al Awadhi and Morris, 2008). This suggests that BI has determined the use of e-government facilities. Ajzen (1991) notes that BI has a significant

impact on the adoption of technology. Particularly in the assessment of the acceptability of technology, the relationship from BI to technology use and proper use is well established (Ajzen, 1991; Taylor et al., 1995; Venkatesh et al., 2003). The BI used in the current study, for example, to measure the actual use of e-government services using the e-government instrument, even if it is very interlinked with UB. The inference in this context can be predicted;

H<sub>7</sub>: BI has a significant influence on the UB of e-government services.

The UTAUT is widely used to understand the creation of technological innovations in diverse contexts and environments in various research projects (Im et al., 2011; Kijisanayotin et al., 2009; White Baker et al., 2007). The UTAUT model gives a theoretical perspective to look into the conditions that influence the adoption and use of technological innovations in developing countries, for example, e-government. It may also serve as a useful guide for understanding the problems. The UTAUT was simplified for this paper [Figure 1] to illustrate from the standpoint of individuals the determinative factors for e-government adoption. Only the relations among the determinants are included in the modified model without the moderating variables in the original model. It helps us to explore the factors required to successfully implement and use e-government services in this simplified UTAUT model.

## RESEARCH METHODOLOGY

### Research Instruments

This study examines the factors affecting the implementation of e-government services in Bangladesh. The author developed an empirical analysis using a survey tool to test the research model, evaluating the variables intended to determine the intention of an individual to use online public authorities. The questionnaire constructs are defined previously in Appendix 1.

### Questionnaire Development

The 29 objects are built to fit 8 buildings modified from previous mafia inquiries (Ifinedo, 2008; Moore and Benbasat, 1991; Venkatesh and Bala, 2008; Venkatesh et al., 2003). This analysis extended the UTAUT model in addition to the WQ and IE systems to incorporate presumed buildings from other frameworks and theories such as. Objects from (Aladwani, 2006; Alenezi and Karim, 2010;

Alomari et al., 2012; Sang and Lee, 2009), have been adapted for WQ and IE builds. The main attempt was made to analyze concerns relevant to e-government programs for the development of the questionnaires. Four specific items and two contingent objects (behavioral purpose and usage behavior) have been selected as the central framework of this study (UTAUT), which comprises four essential items (Venkatesh et al., 2003). The WQ and IE were both chosen as an extra component dependent on (Aladwani, 2006; Alenezi and Karim, 2010; Alomari et al., 2012). The questionnaire has been packed with related questions. The sources of different variables taken into account in the questionnaire are seen in Appendix 1. Likert 5-point scales range from “strong disapproval” to “strictly agreement” to shape the basis for answers to the questionnaire.

### Sampling and Data Analysis Techniques

The Barishal citizens of Patuakhali District have been chosen for their unbiased survey using simple random methods. In this study, respondents included those people who are over 18 years old or who have used or at least know about the e-government service. Six hundred individuals were asked questions, 390 of which responded with 65% response rate. Nonetheless, only 310 data points have been considered correct, and these reliable data points are based on the tests. The research model was tested using the AMOS-23 computer software tool for structural equation modeling (SEM).

## RESULTS

### Demographic Profile of Respondents

The demographic profile of the respondents is shown in Table 2. Users over 18 years of age who have given up the e-government service were equipped with the questionnaire. The males were 85.48% and the women replied 14.52%. The bulk of those questioned was, therefore, male. The study showed that 37,74% were between 18 years of age and 30 years of age, 46,13% between 31 and 39 years of age, and 16,13% between 40 years and older. More than 65% of respondents are married, and around 80% have a child. The results also showed. University students were the majority of respondents. About 66.78% were university students, while 28.71% were public sector workers, and 71.29% were private sector employees. The majority of citizens, however, have modest Internet computer skills. Moreover, 77.42% of respondents spent over 3 h on the internet; 93.55% of those interviewed have home dial-up connections.

**Table 2: Demographic characteristics of sample**

Variable	Description (coding)	Frequency	Percentage
Gender	Male	265	85.48
	Female	45	14.52
Age	18–30 years	117	37.74
	31–39 years	143	46.13
	More than 40 years	50	16.13
Marital status	Single	97	31.29
	Married	213	68.71
Have any children	Yes	245	79.03
	No	65	20.97
Educational qualification	Higher Secondary	83	26.77
	Bachelor	110	35.48
	Masters	97	31.29
	Others	20	6.45
Sector of occupation	Government	89	28.71
	Non-government	221	71.29
How do you describe your general computer knowledge	Poor	95	30.65
	Moderate	150	48.39
	Good	65	20.96
How would you describe your internet knowledge	Poor	32	10.32
	Moderate	193	62.26
	Good	85	27.42
How long have you been using the internet	<1 year	26	8.39
	1–3 years	158	50.96
	More than 3 years	126	40.65
How often do you use the internet per day	1–2 h	01	0.320
	2–3 h	69	22.26
	More than 3 h	240	77.42
Network facilities at home	LAN	290	93.55
	Broadband	20	6.45

### Assessment of Convergent and Discriminant Validity

A validation system for a given model (Hair et al., 2013) has as its primary objective the confirmatory factor analysis (CFA). To test building validity using the CFA, an analysis of converging validity and distinguishing validity was used.

#### Convergent validity

In terms of variable, CR, and mean dependence difference (AVE), convergent validity was estimated. Convergent interest is estimated. The loading factor is about 0.52, CR is

about 0.60, and AVE is not a head convergent (2013) cross-cross. You want AVE. Table 3 shows that the structural load in terms of recommended levels is calculated at between 0.754 and 0.976. The estimated CR values were between 0.725 and 0.743 and the measured AVE from 0.690 and 0.837 above 0.70 (Charter, 1999; Fornell and Larcker, 1981). Therefore, this analysis follows the convergent criterion of validity.

#### Discriminant validity

According to (Fornell and Larcker, 1981), the square AVE roots should be above variations to satisfy the distinctive



**Table 3: Convergent validity results of the measurement model**

Constructs	Items	Estimates (loadings)	CR	AVE
Performance expectancy (PE)	PE-1	0.860	0.942	0.766
	PE-2	0.851		
	PE-3	0.900		
	PE-4	0.878		
	PE-5	0.886		
Effort expectancy (EE)	EE-1	0.872	0.862	0.764
	EE-2	0.881		
	EE-3	0.976		
	EE-4	0.754		
Social influence (SI)	SI-1	0.889	0.890	0.837
	SI-2	0.954		
	SI-3	0.844		
	SI-4	0.967		
Facilitating conditions (FC)	FC-1	0.933	0.743	0.819
	FC-2	0.943		
	FC-3	0.835		
Website quality (WQ)	WQ-1	0.833	0.918	0.690
	WQ-2	0.857		
	WQ-3	0.838		
	WQ-4	0.811		
	WQ-5	0.814		
Internet experience (IE)	IE-1	0.908	0.863	0.765
	IE-2	0.923		
	IE-3	0.789		
	IE-4	0.873		
Behavioral intention (BI)	BI-1	0.914	0.725	0.779
	BI-2	0.904		
	BI-3	0.828		
use Behavior (UB)	UB-1	0.967	0.943	0.769
	UB-2	0.766		
	UB-3	0.876		
	UB-4	0.911		
	UB-5	0.851		

validity requirements. Furthermore, (Hair et al., 2013), reported that inequalities would be accepted if the AVEs were above the interscale square relations of the building. By measuring the absolute value, this study is used to determine the distinct validity of the connections between buildings and AVE's square roots. All of the AVE (diagonal cell's) square roots surpass the relationships between structures, as demonstrated in Table 4.

### **Results of hypothesis testing**

To recognize ties between the structures in the research model, the structural model has been developed. The analysis tested the connection between dependent and independent variables with route ( $\beta$ ) and t statistics. Table 5 shows the results for the structural model. The results show that the relationships between PE and BI ( $t = 5.232$ ,  $\beta = 0$ ).

**Table 4: Discriminant validity results of the measurement model**

Constructs	PE	EE	SI	FC	WQ	IE	BI	UB
PE	<b>0.875</b>							
EE	0.243	<b>0.874</b>						
SI	0.410	0.306	<b>0.915</b>					
FC	0.265	0.421	0.276	<b>0.905</b>				
WQ	0.356	0.252	0.183	0.120	<b>0.831</b>			
IE	0.265	0.494	0.306	0.212	0.331	<b>0.875</b>		
BI	0.428	0.212	0.421	0.194	0.205	0.198	<b>0.883</b>	
UB	0.477	0.292	0.289	0.312	0.165	0.654	0.544	<b>0.877</b>

**Table 5: Structural model**

Hypothesis	Relationship of path			$\beta$ -value	CR-value	P-value	Comments
	IV	Path	DV				
H <sub>1</sub>	PE	--->	BI	0.371	5.232	0.00**	Accepted
H <sub>2</sub>	EE	--->	BI	0.055	-0.544	0.084	Rejected
H <sub>3</sub>	SI	--->	BI	0.165	3.690	0.00**	Accepted
H <sub>4</sub>	FC	--->	BI	0.147	2.111	0.00**	Accepted
H <sub>4-1</sub>	FC	--->	UB	1.963	3.877	0.00**	Accepted
H <sub>5</sub>	WQ	--->	BI	0.476	4.821	0.00**	Accepted
H <sub>6</sub>	IE	--->	BI	0.012	0.877	0.210	Rejected
H <sub>7</sub>	BI	--->	UB	0.365	5.874	0.00**	Accepted

0.371,  $P < 0.05$ ), SI and BI ( $t = 3.690$ ,  $\beta = 0.165$ ,  $P < 0.05$ ), FC and BI ( $t = 2.111$ ,  $\beta = 0.147$ ,  $P < 0.05$ ), WQ and BI ( $t = 4.821$ ,  $\beta = 0.476$ ,  $P < 0.05$ ), and BI and UB ( $t = 5.874$ ,  $\beta = 0.365$ ,  $P < 0.05$ ) were significant. Thus, H<sub>1</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub>5</sub>, and H<sub>7</sub> were supported. However, the relationships between EE and BI ( $t = -0.544$ ,  $\beta = 0.055$ ,  $0.084 > 0.05$ ), IE and BI ( $t = 0.012$ ,  $\beta = 0.877$ ,  $0.210 > 0.05$ ), were irrelevant and not subsidiary H<sub>2</sub> and H<sub>6</sub> in the present study.

## DISCUSSION

This study aims to study and define the desire of people to use the UTAUT model to implement e-government services. This research validates the model and assesses the variance of the result variable. Due to the fact that UTAUT has been launched in this report, technology can be expanded. A new structure linked to the quality and internet interface of the website has been introduced to our present study. In view of our analysis, its concept is significant. As they think, the system's font size, screen position, naming, web link location, and alert feature are sufficient. Systems content plays a significant part in the e-government system,

as the general use of this technology by people to access information. The study used a methodology for quantitative surveys. This is the first study in Bangladesh that examines the desire of citizens to implement governmental services through the use of the TAM model and the use of the SEM model. In reality, PE, SI, FC, WQ, and BI affected user behavior dramatically. EE and IE have not altered user behavior, however. The study's findings and model reinforce (Venkatesh and Davis, 2000) previously found that BI influences the intention of a person to use the technology (in this case, e-government systems) that, in chance, affects user behavior. This study shows that UTAUT was confirmed and shown to be valid and reliable. Because 81.92% of respondents have moderate or higher level computer literacy, the possible negative impact of IE on BI is uncertain. The latest results illustrate some earlier empirical results (Hope et al., 2003).

PE had an affirmative outcome on the intent to function. This outcome emphasizes that expectations of performance continue to be essential and a significant factor in actions (Venkatesh et al., 2003). EE had a detrimental effect on the intention to allow use of e-government services and on

the impact on the conformity with SI. In the case of the compatibility objective and the UB, the FC had a positive effect, which revealed that the FC is the significant predictor of behavioral intention and UB (Venkatesh et al., 2003). To impact the compartmental goal of using e-government services in Bangladesh, the quality website (WQ) has been found to be a significant moderator. IE has no significant impact on behavioral intention to adopt e-government. The government should be provided with proper infrastructure and planning for the use of e-government services.

## IMPLICATIONS

### Practical Implications

The findings of this study will allow researchers and practitioners, such as government policy-makers, to obtain useful information. This helps us to formulate and implement initiatives and strategies to enhance e-government services; educational activities will be focused on the value of the use of e-government facilities in people's everyday lives. To make greater use of online government services, the government will also apply operational excellence to its services and improve its consistency.

### Theoretical Implications

The results of this study offer policy-makers an impact on increasing awareness of the advantages of e-government services. The difference between e-government theory and real practice could be bridged. The divisions are theoretical. The updated UTAUT model is a practical model in which to analyze the factors influencing the intention of people to use e-governmental services. It offers an insight into the problems that affect the efficient functioning of e-government, especially in Bangladesh.

## CONCLUSIONS

The study provides empirical evidence of broad acceptance and benefit of e-government services, such as ease of use and timely services. The study looks at various factors linked to the approval of energy in Bangladesh. The UTAUT model was derived to determine the key factors that inspiration the adoption of e-government. We suggested that the conceptual model would provide internet usage and WQ. An updated UTAUT model that incorporates e-government factors was introduced to study the citizen's adoption of e-government services. The main metrics to analyze these groups, mostly

borrowed from previously established objects, are also described in this document. The results show that people are more prepared to take e-government services when the quality and efficacy of these services increase. Using UTAUT, they have implemented four processes (i.e., performance goals, commitment standards, social impact, and usability). Besides, the government should provide adequate information and organized infrastructure and growth for e-services. The geographical coverage of this study is limited, and prospective scholars should also increase the sample size to ensure that interviewees are demographically diverse. We have developed our model through an existing literature review than having collected data from Bangladesh. We have tested the validity and reliability of this model. Test results indicate that this model is valid and capable of making a valuable contribution to explaining the adoption of e-government service in developing country contexts.

### Recommendations

This study examined the factors that affect the adoption from the citizen's point of view of e-government services. This study can, therefore, serve as a starting point for work on e-government adoption, which is essential and necessary to encourage its acceptance and use. Based on the results of this study, some suggestions for both developers and policy-makers can be created.

- i. To raise awareness among its citizens, the Government of Bangladesh will adopt a cohesive strategy that is based on four factors (PE, EE, SI, and FC). To engage citizens more, the government should conduct a promotional campaign about E-government applications.
- ii. The government will include key ordinary persons in an awareness drive on the use of e-government services to boost potential users' confidence and trust.
- iii. The government will concentrate on providing the citizen with basic training and resources to implement e-government services successfully.

## LIMITATIONS AND FURTHER RESEARCH DIRECTION

More than 6 variables should be concentrated on future studies, as the factors which influence the intention for citizens of government services to adopt e-government cannot fully explain some variables. Consequently, initial results cannot be forecast. Future researchers also must increase the sample size and different roles to overcome these limitations.

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## APPENDIX

### Appendix 1: Research instruments

Performance expectancy		
Items		Source
PE-1	I will meet my desires from the public sector more quickly and competently with the use of the e-government services.	(Venkatesh et al., 2003)
PE-2	The use of e-government services improves equality among all citizens.	
PE-3	It saves time for citizen to use e-government services.	
PE-4	The quality of services recovers with the use of e-government services.	
PE-5	For my job, I consider this e-service helpful.	
Effort expectancy		
EE-1	I have a clear and understandable experience with this e-service.	(Venkatesh et al., 2003)
EE-2	In using this e-service, it is simple for me to become competent.	
EE-3	It is simple for me to know how to use this e-service feature.	
EE-4	It is quick to use the e-government services program.	
Social influence		
SI-1	People who effect my actions claim I should use the resources of e-government.	(Venkatesh et al., 2003)
SI-2	When my friends and colleagues used them, I'd prefer e-government services.	
SI-3	Sectors of government encourage citizens to use the public services program.	
SI-4	The citizen maintained the use of the e-service.	
Facilitating conditions		
FC-1	I have the ability to use this e-service	(Venkatesh et al., 2003)
FC-2	The entire process of my work cannot be consistent with this e-service.	
FC-3	For using this e-service, I have the necessary knowledge.	
Website quality		
WQ-1	Government websites safe and safe for transections.	(Aladwani, 2006; Alomari et al., 2012; Sang and Lee, 2009)
WQ-2	The website of the government looks attractive and uses proper fonts and colors.	
WQ-3	The websites of government look coordinated.	
WQ-4	Government websites are always open on and around the world.	
WQ-5	The government website contents are helpful and revised.	
Behavioral intention to use		
BI-1	In future, I plan to use e-government service.	(Venkatesh et al., 2003)
BI-2	During my ordinary life, I'll still strive to use e-government.	
BI-3	I expect to actively use e-government	
User behavior		
UB-1	The e-service suits the job's objectives.	(Venkatesh et al., 2003)
UB-2	It helped me to take control of my work using this e-service.	
UB-3	To order to carry out my official proposal, I want to use e-government services.	
UB-4	I use e-government services regularly.	

