IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A Study On Factors Affecting The Attitude Of Stakeholders Of Higher Education Institutions

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Abstract: The positivist paradigm and the quantitative research technique formed the basis of this study's research design. A total of 421 respondents from Haryana's educational institutions provided the data. Using structural equation modelling (SEM), the study's model was evaluated. The study's findings suggested that the individual's attitude is influenced by performance expectancy, perceived service quality, facilitating conditions, and effort expectancy. The intention to recommend is influenced by the behaviour intention to use, which is in turn influenced by the attitude.

Keywords: E-government, e-gov, UTAUT model, TAM model, UMEGA model

Introduction:

In recent years, electronic government, or e-Gov for short, has emerged as a major component of governance and is considered one of the most intriguing concepts in public administration. Government information and services made available to the citizens through digital channels, such as the Internet, are known as "e-government" (West 2004). In recent years, electronic government, or e-Gov for short, has emerged as a major component of governance and is considered one of the most intriguing concepts in public administration. The two primary categories of electronic government services are informational services, which deal with the dissemination of government information through websites, and transactional services, which include the facilitation of two-way transactions between the government and citizens and may necessitate the integration of various government agencies both horizontally and vertically. Some of the benefits of e-Gov services over traditional public services are as follows: efficiency in delivery, service integration, administrative cost reduction, a unified view of citizens across all government services, and rapid adaptation to citizen needs. However, there is a very low success rate for the deployment of transactional e-gov services globally due to governments facing difficulties in installing these services. There has been a lot of study on e-Gov adoption, but most of it has been deployed on popular alternative models of IS/IT like TAM, TPB, and UTAUT, or variants of these, to try to figure out why people are not willing to use or adopt e-gov systems. The majority of the existing theories on e-Gov adoption fail to take into account e-Gov-specific context since they are based on traditional IS (information system) concepts. A theory tailored to the e-gov specific domain is necessary because it has its own unique set of challenges. A theory-building exercise, separate from other forms of research in the e-gov-specific context, using IS/IT

theories and concepts, is a necessity of the day because of the limited applicability of IS concepts. These concepts are suitable for studying technology adoption in general, but they cannot handle the complexities surrounding the e-gov context (Dwivedi et al. 2012).

Literature Review:

Author	Model	Sample size	Country	Findings
Kurfalı *et al.,* (2017)	UTAUT model	529	Turkey	Researchers discovered that factors such as facilitating conditions, trust in the internet, social influence, and performance expectations all contributed to a higher behavioural intention to use e-government services. Furthermore, it has not been previously studied in an e-government context that both trust variables have a positive effect on performance expectation of e-government services.
Rabaa'I (2017)	UTAUT Model	1,132	Jordan	According to the results obtained using the partial least squares (PLS) structural equation modelling technique, all five constructs of the UTAUT Model—performance expectation, effort expectation, social influence, facilitating conditions, and behavioural intention—have a significant impact on the adoption of e-government services in Jordan.
Verkijika & Wet (2018)	UMEGA and extended UMEGA	282	South Africa,	The objective of this study was to experimentally evaluate UMEGA and an enhanced version of it. This research utilised data from 282 respondents in South Africa, a nation located in sub-Saharan Africa.

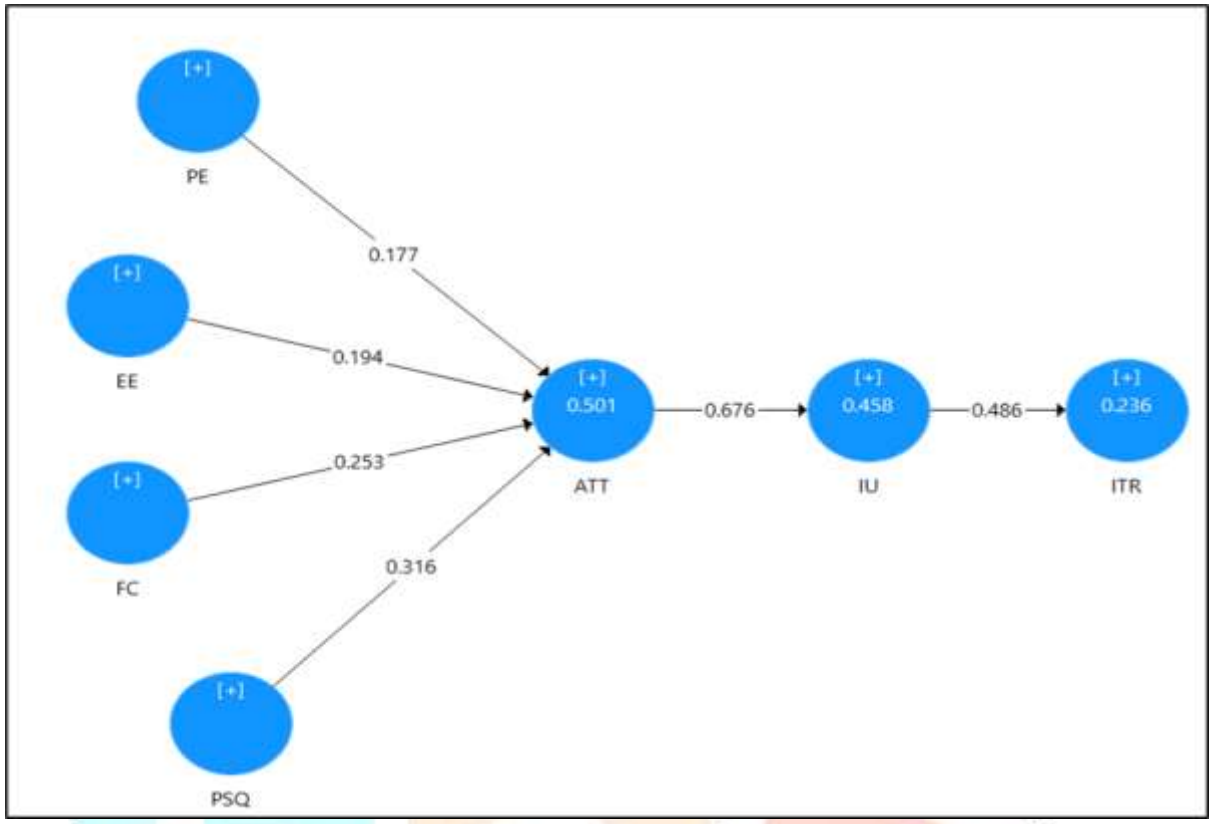
				It was found that there was a clear and substantial relationship between behavioural intentions and attitudes, facilitating conditions, belief in the government, and trust in the Internet. Attitudes were in turn affected by performance expectancy, perceived risk, social influence, and computer self-efficacy.
Burhanudddin *et al*., (2019)	UMEGA Model	396	Thailand	The primary objective of this study was to determine citizens' intentions towards online e-government services. According to the study's results, attitude mediates the link between trust and intention, and both attitudes and trust are substantial predictors of intention.
Rallis *et al*., (2019)		513	Greece	The present study has two goals: first, to generate new ideas about what influences people's intentions to use e-government services (a research model); and second, to put those ideas to the test using main data from Greeks who haven't adopted e-government yet. The major results of this study indicated that non-users' intention to utilise e-government services is influenced by perceived usefulness, computer self-efficacy, peer influence, and perceived risk.
Hammad *et al*., (2019)	Extended TAM and theory of	Pakistan	240	This article aims to uncover the factors that prompted the citizens of

	planned behaviour.			Pakistan to start using e-government services. The results showed that citizens' attitudes towards the use of e-government services are favourably affected by effort expectancy, facilitating conditions and performance expectation.
Mensah *et al*., (2020)	UMEGA	500	Ghana.	In contrast to hypothesised, the findings showed that effort expectancy, social influence, and performance expectancy do not affect attitude towards e-government service usage. Nevertheless, it was shown that facilitating conditions had a substantial impact on the behavioural intention to use and effort expectation of e-government services.
Khurshid *et al*., (2020)	UMEGA	54	Pakistan	It was indicated that despite a small sample size, facilitating conditions were found to have a positive effect on effort expectancy, attitude on behavioural intention, and performance expectancy on attitude for the adoption of open data technologies
Rana *et al*., (2020)	UTAUT Model	310	Bangladesh	In Bangladesh, it was found that conduct behaviour intent was profoundly influenced by performance expectancy, website quality, social influence, internet experience (IE) and facilitating conditions when e-government services were acquired.

Kamarudin *et al*., (2021)	UTAUT model	388	Malaysia	The study was conducted to find out what influences telecentres in Malaysia to implement e-government services (e-Gov) and how trust plays a mediating; this is the primary goal of this research. The findings showed that telecentre users' desire to use e-Gov is strongly connected to the official use of e-Gov, and that performance expectation, social impact, and facilitating conditions are all positively associated with this intention. Researchers also discovered that trust served as a mediator between consumers' intentions and their actual use of these services.

Research Methodology: Figure 1 illustrates the research model of this study. Independent variables of this study are as follows: Performance expectancy, perceived service quality, effort expectancy and facilitating conditions.

Figure 1



Demographic Profile:

Statistical analysis was performed using 421 questionnaires. According to the sample demography, 63.66% of the respondents were male and 36.34% were female. Nearly half of the respondents (43.47%) were in the age bracket of 31–40; (12.59 %) were in the age category of 20; (23.28%) were in the 21 to 30 age categories; (14.25%) were from 41 to 50 age category; and 6.41% were older than 50. The majority of the respondents (30.17%) had postgraduate education.

Constructs utilised in this investigation were derived from prior research. Each item was assessed using seven-point Likert-type scales, with an anchor point of (1) "Strongly disagree" and a maximum of (5) "Strongly agree."

Hypothesis development:

Performance Expectancy:

According to Venkatesh et al. (2003), performance expectation is defined as the user's belief that a certain technology would help them achieve a specific work performance. Several studies have shown that people's expectations of how well technology would work influence their likelihood to actually use such apps (Davis, 1989; Venkatesh et al., 2003). H1 was subsequently proposed:

Hypothesis 1: performance expectancy has a direct impact on attitude.

Effort Expectancy:

The user's expectation of how simple and problem-free it will be to utilise a certain piece of technology is known as their effort expectancy (Venkatesh et al., 2003). According to Davis (1989) and Venkatesh et al. (2003), users' effort expectations impact how readily they embrace new technology. As a result, H2 was recommended:

Hypothesis 2: effort expectancy has a significant impact on attitude.

Facilitating Conditions:

According to Venkatesh et al. (2003), facilitating conditions refer to the user's belief that sufficient organisational and technological infrastructure is available to support the adoption of a certain technology. According to Venkatesh et al. (2003), facilitating conditions may affect how users embrace a technology. Hence, hypothesis 3 was put forth:

Hypothesis 3: facilitating conditions has a direct and significant impact on attitude.

Perceived Service Quality:

When services are designed to fulfil the wants and expectations of the user, this is known as perceived service quality (Alanezi, Kamil, & Basri, 2010; Heidari, Mousakhani, & Rashidi, 2014). Many studies have shown that people are more likely to utilise e-government services if they are reliable, secure, efficient, and responsive (Sharma, 2015). Therefore, H4 was suggested.

Hypothesis 4: perceived service quality has an influence on attitude.

Attitude:

A user's attitude towards technology adoption may be defined as their level of positive or negative evaluation of using and interacting with technologies like e-government services.
A large percentage of individuals who have a favourable impression of e-government services are likely to use them (Verkijika & De Wet, 2018).

Hypothesis 5: Attitude has a direct impact on behavioural intention to use.

Behavioural intention to use:

According to Davis (1989) and Venkatesh et al. (2003), behavioural intention to use is another factor that influences the actual usage of new technology. Potential consumers may also be inclined to advocate for its implementation if they intend to utilise it.

Hypothesis 6: Behavioural intention to use has a significant impact on intention to recommend.

Table 1. Sampling profile of the respondents

Variables	Frequency	Percentage
Gender		
Male	268	63.66%
Female	153	36.34%
Age		
Upto 20 years	53	12.59%
From 21 to 30 years	98	23.28%
From 31 to 40 years	183	43.47%
From 41 to 50 years	60	14.25%
Above 50 years	27	6.41%
Education Qualification		
Upto 12th	62	14.73%
Graduate	121	28.74%
Post-Graduate	127	30.17%
M.Phil./Ph.D	71	16.86%
Other	40	9.50%
Type of the institution		
Government	153	36.34%
Government Aided	17	4.04%
Private	251	59.62%

Stream of Education		
Science	73	17.34%
Commerce	117	27.79%
Management	57	13.54%
Arts	174	41.33%

Data Analysis and results:

In line with earlier research, structural equation modelling (SEM) was used to analyse the data (Bilro et al., 2018). According to Ali et al. (2018), Jamshidi et al. (2018), and Rousta and Jamshidi (2020), SEM is the best method to use while studying marketing- and management-related topics. This statistical approach for evaluating and predicting causal links utilising a mix of statistical data is structural equation modelling (SEM), as stated by Hair et al. (2014). The research model was evaluated using both a measurement model and a structural model, following a two-step process proposed by Anderson and Gerbing (1988). Following an evaluation of the instrument's validity and reliability by the measurement model, researchers examined the structural model, which comprises the following variables: beta value, corresponding t-values, and coefficient of determinant R^2 (Rahi, 2017a, b).

Measurement model:

Based on the recommendations of Hecheler et al. (2009) and Chin (1998a), the researchers decided to analyse factor loading by considering loads greater than 0.60. The researcher also removed loadings lower than 0.4. Therefore, the instrument displays high factor loadings, with all components above 0.40. The reliability of the constructs was evaluated using Cronbach's alpha (CA) and composite reliability (CR). Scales have internal consistency, as shown in Table 2 by composite reliability and Cronbach's alpha values that were more than0.70 (Henseler et al., 2009).

Table 2. Accessing validity and reliability of measurement model

Instrument/Items and constructs	Loadings	VIF	(α)	CR	AVE
Performance Expectancy					
PE1	0.807	1.758	0.865	0.903	0.650
PE2	0.781	1.732			
PE3	0.767	2.193			
PE4	0.833	2.134			
PE5	0.840	2.133			
Effort Expectancy					
EE1	0.836	1.821	0.837	0.891	0.671
EE2	0.816	1.809			
EE3	0.806	1.852			
EE4	0.817	1.821			
Facilitation Conditions					
FC1	0.832	2.028	0.871	0.912	0.722
FC2	0.867	2.336			
FC3	0.826	1.881			
FC4	0.871	2.394			
Perceived Service Quality					
PSQ1	0.823	2.437	0.898	0.924	0.709
PSQ2	0.855	2.236			
PSQ3	0.851	2.491			
PSQ4	0.855	2.237			
PSQ5	0.825	2.157			

Attitude					
ATT1	0.842	2.116	0.883	0.919	0.741
ATT2	0.851	2.067			
ATT3	0.878	2.496			
ATT4	0.872	2.481			
Intention to Use					
IU1	0.891	2.404	0.841	0.904	0.759
IU2	0.844	1.739			
UI3	0.878	1.829			
Intention to Recommend					
ITR1	0.810	2.075	0.867	0.903	0.652
ITR2	0.785	1.748			
ITR3	0.819	1.942			
ITR4	0.786	1.829			
ITR5	0.835	2.295			

With Fornell and Larcker's (1981) suggested cutoff of 0.50, the average variance extracted (AVE) was greater. Find the results of the measurement model in Table 1.

Fornell and Larcker's criteria was used to conduct a more thorough examination of the discriminant validity (Fornell and Larcker, 1981). If "items differentiate among constructs and measure distinct concepts" (FornellandLarcker,1981), then the test has discriminant validity. According to Fornell and Larcker (1981), for discriminant validity to be adequate, the square root of AVE should be greater than the correlation coefficients with other pairs of constructs. Discriminant validity is shown by the fact that, in the relevant rows and columns of Table 3**,** the square root of AVE is larger than off-diagonal components. These results validated the measurement model's suitability for structural modelling and demonstrated its high levels of indicator reliability, internal consistency, convergent validity, and discriminant validity.

Table 3. Discriminant validity

Variables	***1***	***2***	***3***	***4***	***5***	***6***	***7***
1. Attitude	0.861						
2. Effort Expectancy	0.453	0.819					
3. Facilitation Conditions	0.521	0.244	0.849				
4. Intention to Recommend	0.246	0.158	0.256	0.807			
5. Intention to Use	0.676	0.486	0.425	0.486	0.871		
6. Performance Expectancy	0.518	0.455	0.375	0.217	0.527	0.806	
7. Perceived Service Quality	0.600	0.37	0.49	0.447	0.557	0.501	0.842

Structural model:

The structural model was used to test the research hypotheses. As proposed by Hair et al. (2014), the causal structure evaluation involves calculating the path coefficient (β), the variance explained (R^2), the matching t-values (significance level), the predictive relevance (Q^2), and the effect size (f^2). There are t-statistics and significance levels for the constructs shown in Table 4 of the PL-S estimate findings. Result of the study indicated that performance expectancy, facilitating conditions, perceived service quality and effort expectancy all impact the attitude of the individual. And attitude influence the Behaviour intention to Use which in turns affect the intention to recommend.

Table 4. Hypothesized Path Diagram

Hypothesis	Relationship	Direct effect (β)	*SE*	*t*-statistics	*p*-values	Results
H_1	PE → ATT	0.177	0.041	4.281	0.000	*Hypothesis Supported*
H_2	EE → ATT	0.194	0.035	5.478	0.000	*Hypothesis Supported*
H_3	FC → ATT	0.253	0.042	6.097	0.000	*Hypothesis Supported*
H_4	PSQ → ATT	0.316	0.049	6.386	0.000	*Hypothesis Supported*
H_5	ATT → IU	0.676	0.023	28.810	0.000	*Hypothesis Supported*
H_6	IU → ITR	0.486	0.041	11.874	0.000	*Hypothesis Supported*

PE- Performance Expectancy, EE- Effort Expectancy, FC- Facilitation Conditions, PSQ- Perceived Service Quality, ATT- Attitude, IU-Intention to Use, and ITR- Intention to Recommend.

The results of the structural equation model indicated that performance expectancy, effort expectancy was significantly influenced by attitude (β= 0.177, t-value4.281, significance p<0.01 and β=0.194, t-value5.478, significance p<0.05), thereby confirming hypotheses H1 and H2. Subsequently, facilitating conditions had a substantial impact on attitude (β=0.253, t-value6.097, significance p<0.000) and therefore supported hypothesis 3. HypothesisH4 was confirmed, indicating that perceived service quality significantly influenced attitude (β=0.316, t-value6.386, significance p<0.000). Attitude a substantial impact on Intention to Use (β=0.676, t-value 28.810, significance p<0.000) and confirmed H5. Intention to Use had a substantial impact on Intention to Recommend (β=0.041, t-value11.874, significance p<0.05) and confirmed H6.

Evaluating impact sizes(F^2) and predictive relevance (Q^2). To analyse the changes in R^2, we calculate the impact size of each variable (f^2). A predictive construct's relative influence on endogenous constructs is evaluated by the (f^2) (Cohen, 1988). Rahi (2017a, b) asserted that the p-value shows whether an effect exists; therefore, it does not reveal the size of the effect. A researcher must provide both substantive significance (f^2) and statistical significance (p-value) in their report. Cohen (1988) states that for effect size (f2), the acceptable values are 0.35, 0.15, and 0.02, which correspond to large, medium, and small effect sizes, respectively. According to Table 5's (f^2) values, attitude has a large impact size, while Intention to Use has a medium one. Because of this, the effect sizes of all other exogenous factors are miniature. In addition, we used a blindfolded approach to evaluate the predictive significance of Q^2. According to chin (1998b), Blindfolding is a method for reusing samples that involves estimating parameters using the remaining data points while excluding every d^{th} data point from the endogenous construct's indicators. The model has

predictive significance if the acceptable value of predictive relevance (Q^2) is larger than zero (Cohen, 1988).

Table 5. Computing Effect Size Analysis (f^2) and Predictive Relevance (Q^2)

Intention to use and recommend					
Construct	R^2	R^2 adjusted	Q^2	(f^2)	**Decision**
Attitude	0.501	0.496	0.362		
Performance Expectancy				0.041	Small
Effort Expectancy				0.057	Small
Facilitation Conditions				0.095	Small
Perceived Service Quality				0.125	Small
Intention to use	0.458	0.456	0.342		
Attitude				0.844	Substantial
Intention to recommend	0.236	0.234	0.150		
Intention to use				0.309	Medium
Note(s): f^2: 0.02, Small; 0.15, Medium; 0.35, Substantial					

Discussion: The purpose of this investigation was to determine the variables that motivate individuals to implement electronic government services. Citizens' attitude and intention were assessed by researchers using the following factors: effort expectancy, perceived services quality, Performance expectancy, facilitating conditions and intention to recommend. The study's findings indicated that the attitude of individuals towards the adoption of e-government services is influenced by facilitating conditions, performance expectancy, perceived service quality, and effort expectancy. Additionally, it was discovered that the behavioural intention to use is influenced by attitude, which in turn affects the behavioural intention to recommend.

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