

E-GOVERNANCE DIMENSIONS IN THE REPUBLIC OF MAURITIUS

Dr. Chintamanee Sanmukhiya
Deputy Rector -Modern College, Mauritius.
Email: chintamanee@hotmail.co.uk

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Abstract

Purpose: This study is the first attempt to examine the attitudes of citizens towards six key dimensions of e-governance in the Republic of Mauritius namely: 'Perceived Ease of Use' (PEOU) and 'Perceived Usefulness' (PU) of the Technology Acceptance Model ([Davis, 1989](#)); 'Collaboration' and 'Participation' inspired by [Al Athmay \(2013\)](#); 'Trust' from [Belanger & Carter, 2008](#); and 'Transparency' from [Bhatnagar \(2003\)](#).

Methodology: A random survey was conducted across all districts and among e-government users only. Structured questionnaires were filled by 157 citizens mainly on a face to face basis. Pearson's correlation coefficients, independent samples T-tests, one way/Welch ANOVA and Games-Howell post hoc tests were used.

Main Findings: The respondents revealed positive attitudes towards PEOU and PU but unveiled negative attitudes towards the remaining four dimensions of e-governance. Citizens' perceptions were only influenced by age, education, and frequency of e-government use. Lack of trust, absence of online democratic dialog, inadequate e-consultation and non-transparent decision-making may eventually lower trust in the government.

Implications/Applications: This study has generated key insights into the factors influencing citizens' perceptions towards the six e-governance dimensions (PEOU, PU, Collaboration, Trust, Participation, and Transparency) and these insights were non-existence prior to this research. Thus this study may aid policymakers to rethink and redesign their e-government initiatives to sustain existing users and attract more users of government websites.

Keywords: E-governance, demographic factors, frequency of e-government use, IT skills, internet connectivity, ANOVA.

INTRODUCTION

In 2015 Mauritius was ranked first among the African countries with an ICT Development Index (IDI) of 5.99 out of 10 and ranked 73rd among 167 countries with an international internet bandwidth of 16870 per second (Statistics Mauritius, 2016). [Rorissa and Demissie \(2010\)](#) conducted an analysis of 582 African websites and they revealed that Mauritius was among the top five countries that had the highest number of features on its government website and online executable services. The proportion of households in the Republic of Mauritius in 2014 with a computer was around 53% ([Statistics Mauritius, 2016](#)) and internet subscriptions in 2015 were around 67 per 100 inhabitants ([Statistics Mauritius, 2016](#)). This study is the first attempt to examine the attitudes of citizens towards six key dimensions of e-governance in the Republic of Mauritius. The key dimensions are 'Perceived Ease of Use' (PEOU) and 'Perceived Usefulness' (PU) of the Technology Acceptance Model ([Davis, 1989](#)); 'Collaboration' and 'Participation' of [Al Athmay \(2013\)](#); 'Trust' in the government websites mainly inspired by the [Belanger and Carter \(2008\)](#); and 'Transparency' to reduce corruption as argued by [Bhatnagar \(2003\)](#). This study also examines the effects of demographic factors, internet connectivity, IT competency and frequency of government portal use on citizens' perceptions towards these dimensions.

Traditionally governments have been described as huge and complex bureaucratic institutions with barriers that prevent access to government information and render the provision of public services frustrating and cumbersome ([Coleman, 2006](#)). But with the advent of e-government citizens can interact better with the government and face fewer hardships. Although e-government has been viewed in terms of publishing information, interacting with government officials and carrying out transactions ([Biju, 2016](#); [Dong & Keshavjee, 2016](#); [Kumar, Mukerji, Butt & Persaud, 2007](#); [Adebayo & Bilquis, 2018](#); [Eze, 2018](#)), the primary role of e-government should be to enable e-governance that not only reduces costs or removes the silos-based public administration ([Al Athmay 2013](#); [De Silva, 2016](#)) but also increases accountability, removes discretions, reduces corruption, encourage citizens' e-participation and e-democracy. It has provided an entirely new medium of communication for businesses and individuals ([Kumar et al., 2007](#)). This study looks at all the key aspects of e-governance namely the ease of use, the extent to which e-government improves tasks performance, the collaborative platform for engaging in democratic dialog, the extent to which government websites may be trusted, citizen engagement in decision making and the possibility of reducing corruption in the Republic of Mauritius. The next section examines the theoretical and empirical literature relevant to this paper, after which the methodology will be presented and the results will be discussed at length. Subsequently, this study will be synthesized and all policy implications will be discussed. Finally some suggestions to guide future studies will be made.

LITERATURE REVIEW

E-governance and e-government are distinct ([Bannister & Connolly, 2012](#)). E-governance refers to the technology-mediated relationship that exists between a government and its citizens ([Gudavalli, Kumar & Raju, 2014](#)) whereas e-government provides routine information and enables the usual transactions between the government and its citizens through electronic means ([Marche & McNiven, 2003](#); [Fasunwon & Mohammed, 2018](#); [Widilestariningtyas & Karo, 2016](#)).

Whilst e-government facilitates access to information; improves interactions with citizens, businesses and government agencies; e-governance encourages freedom of expression, greater equity, reduces monopoly, makes the government more accountable, more effective, increases transparency, reduces procedural delays, deters corruption, builds trust in the political process, strengthens democracy, brings greater e-participation, and social inclusion. Here citizens are empowered to monitor government activities closely. E-governance is viewed as an antidote against corruption as there is less interaction with government officials thus reducing bribery issues, nepotism, red tape and bureaucratic inefficiencies (Hassan 2004). It changes the perceptions of citizens towards the government and increases citizens' satisfactions (Belwal & Al-Zoubi, 2008). Alternatively e-governance may be defined as the use of ICTs by the public sector to improve information and public services delivery, encourage citizens' participation into decision making and make government more transparent (UNESCO, 2011).

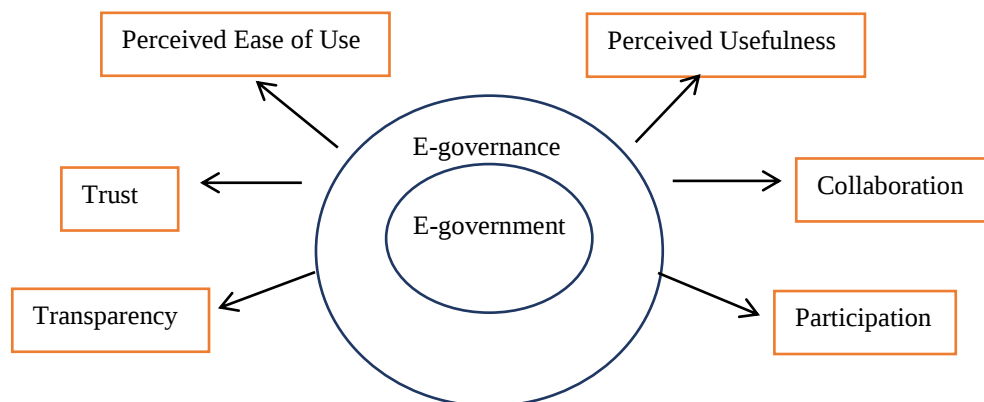


Figure 1: Theoretical Framework

Figure 1 illustrates the theoretical framework behind the different dimensions of e-governance. E-government is depicted as a subset of e-governance. The main purpose of e-government should be to enable e-governance and should not end up as being merely an electronic means to publish government information, to share information between government agencies and to enable online transactions. E-government is mainly influenced by perceived ease of use, perceived usefulness, and trust in government websites. E-government, in turn, adds to the broader concept of e-governance which requires collaboration from government officials to turn government websites into a platform for democratic dialog, citizen participation and transparency to ensure the success of e-governance initiatives. Thus e-governance is measured by the six dimensions: PEOU, PU, collaboration, trust, participation, and Transparency.

The most popular Technology Acceptance Model (TAM) was originally developed by Davis (1989) to study what encourages the adoption or rejection of new technology. Since then TAM has been modified several times but yet its two major constructs: perceived ease of use (PEOU) and perceived usefulness (PU) can be easily identified (Marangunić & Granić, 2015). Thus these two constructs have been included as two dimensions of e-governance in this study. PEOU as defined by Davis (1989) is the extent to which an individual believes that the system would be free of effort. In other words, how easy it would be to learn or operate the new system and become skillful at it while assessing the extent to which it is clear, understandable, flexible and controllable. Mathieson (1991) describes PEOU as the minimum effort required for banking on the internet. Roger (1983) defined PEOU as the extent to which a customer believes the new product or service is better than its substitutes. Venkatesh and Davis (2000) stated that PEOU has a positive influence on system adoption. However Gefen and Straub (1997) argue that PEOU only affects system adoption if the individual is looking for information but does not use the technology for transaction purposes.

On the other hand, perceived usefulness (PU) is the extent to which individuals believe that the use of a particular system would enhance their job performances (Davis, 1989). Here he argues that the website content may contribute positively to PU. PU is the citizen's belief about the degree to which government websites can help them acquire all the necessary information and complete their work more quickly. Davis (1989) argues that the level of PU affects e-government use directly. PU would encourage the individual to use the user-friendly and innovative self-service technology (Pikkarainen, Pikkarainen, Karjaluoto, & Pahnla, 2004). PU also depends on the e-government services offered such as application for passport renewal, provisional driving license and filing of tax returns. As highlighted by Lallmahomed, Lallmahomed, and Lallmahomed (2017), around 75% of the e-services offered by the government of Mauritius can be fully submitted online. Kumar et al. (2007) suggested an integrated portal to enhance PU where citizens would have only one point of access for all public e-services instead of visiting different government websites. The PEOU and PU of government websites have positive effects on the individual's trust in e-government Alsaghier, Ford, Nguyen, & Rene 2009; Eze, 2017; Taechaubol, 2017) which connect to the Trust dimension in this study.

Following Carter & Belanger, 2005, the trust may be defined as the confidence in the government's reliability and integrity for providing services electronically. Primarily the citizens can rely upon the promise of the government that the latter will

not do harm to the former nor allow a third party to do so. Trust is a major element for citizens to transact in a virtual environment and to reveal personal information. The absence of trust may cause rejection of e-governance and serious disruptions in the continued use of e-government services. Although the government website constantly evolved on regular feedback from its Canadian users and despite its high maturity level, citizens' concerns about trust issues have acted as a barrier to the adoption of e-government in Canada. Citizens would prefer a hassle-free, rich and secure government website ([Kumar et al., 2007](#); [Dianita, 2015](#)). People may feel demotivated and continue to use the traditional offline government services instead of the substitute online channel ([Ranaweera 2016](#); [Mizirak & Altintas, 2018](#)). Citizens may become reluctant to use and seek e-government services if they do not trust government websites ([Belanger & Carter, 2009](#)). [Warkentin et al. \(2002\)](#) have also highlighted the importance of security issues through their 'perceived risk' dimension where citizens are afraid of being monitored online and losing their personal information.

Although confidence in an institution may be strong, confidence in its technology may be weak ([Jahangir & Begum, 2008](#)). In other words, confidence in the government may not always engender confidence in government websites. Thus in this research emphasis is placed on the elements of online privacy and security rather than on trust in the government itself and will be examined through trust in the government websites. Trust will be measured as the extent to which an individual believes that the government website safeguards personal information and is protected against intrusion ([Papadomichelaki & Mentzas, 2011](#)). Privacy statements do not usually make citizens feel safe to reveal their personal information on government websites. [Alasem \(2015\)](#) report that around 25% never checked the government's website privacy statements and he instead stresses on laws for data protection. [Mercuri \(2005\)](#) argues that lack of cyber-trust in terms of trust in the digital data transport medium and software infrastructures can impede both the acceptance and increased usage of government e-services. Also enhanced interactions prompt process-based trust where emails, websites, question services, and online transactions create greater opportunities for individuals to interact with civil servants in an easy, quick and convenient manner ([Tolbert & Mossberger, 2006](#)). This connects to the next dimension of e-governance used in this study, Collaboration ([Tolbert & Mossberger, 2006](#); [Al Athmay, 2013](#))

The Collaboration dimension measures the collaborative governance which is the degree to which technology may be used to integrate information and services across several government agencies to enable citizens to get seamless public services without the need to understand the mammoth structure of government ([Al Athmay, 2013](#)). Collaboration is about the better provision of public services in front-office, higher efficiency in back-office and greater interoperability in the government. In this study, Collaboration may be referred to as the extent to which the use of ICT has actually created a platform that carries all the required information, support, and integration to encourage citizen participation and foster democratic dialog. Integration as argued by [Alsaghier, Ford, Nguyen, and Rene \(2009\)](#) displays a very high level of sophistication in e-government development. It may occur both horizontally and vertically. Here public services are integrated across all government departments and agencies so that citizens may access them through a single website which is the government online portal. Also the basic idea behind the Collaboration dimension is to ensure the provision of adequate government information on request and interactions with government officials that initiates and sustain a democratic dialog between the representatives and the citizens or among the citizens themselves. Collaboration paves the way for citizens' participation in the decision-making process. This links to the next dimension of this study, Participation.

Participation is based on the concept of governing with people ([Oktem, Demirhan & Demirhan, 2014](#)). It involves the use of the Internet to engage citizens in the decision-making process with the government. It captures the extent to which individuals feel part of a democracy where they feel they are being consulted, their feedback is valuable and incorporated into the decisions. Following [Al Athmay \(2013\)](#) the Participation dimension may be split into three categories: E-information, E-consultation and E-decision making. E-information is about the degree of online information provision that may foster citizens' participation. E-consultation is about the continuous interactions or the forth and back communication between the citizens and their government. E-decision making is evidence that public policies have actually been altered based on input and feedback from citizens. The use of ICT allows direct citizen participation in e-government initiatives. Social media instead of traditional media may be used to promote e-governance. Interestingly, the latter promotes one-way interactions whereas the former promotes many-to-many interactions which encourage information sharing and greater participation among members of the public. Some examples of social media are wikis, blogs, and collaborative editing tools ([Porter, 2008](#)).

Citizen participation tends to be low during the conceptualization and planning processes which eventually makes implementation difficult ([Das, Patra, & Panda, 2011](#)). Hence citizens should be viewed as partners in the governance process and all components of e-governance require their participation. Citizens Net, for instance, was designed to ensure the safety of citizens in The Netherlands. Despite huge investments in large projects, citizens continued to feel unsafe until they participated in Citizens Net which was based on the collaboration between the police and citizens ([Meijer, 2015](#)). Similarly citizens' participation is of paramount importance in terms of consultation, their involvement in the government decisions and public administration to guarantee the success of e-governance initiatives. Fijisawa is popular for e-participation where an electronic bulletin board has been initiated for Japanese to make suggestions or propose alternative policies which are eventually taken up by policy experts if it is cost-effective and innovative ([Shim & Eom, 2008](#)). Online participation makes citizen engagement simple, fast and efficient by allowing many citizens to express their views at any time convenient to them and at a lower coordination cost than in the traditional citizen engagement process. Through the emergence of information communication technology citizens get feedbacks from public officials and the decision making

process becomes more open and transparent. This leads to the last dimension of e-governance in this study 'Transparency'.

Political corruption occurs when formal rules that govern the allocation of public resources are violated by government officials for private or political gains. Corruption hinders the poor and acts as an obstacle to economic growth ([Mistry & Jalal, 2012](#)) with negative long term impacts ([Mahmood, 2004](#)). Discretionary powers of bureaucrats over the supply of government services enable extortion of bribes from citizens where a share may be channeled to politicians which will be used to finance future elections ([Bussell, 2012](#)). There are three types of corruption: petty corruption or low-level corruption by administrators; state capture where public assets are stripped by government officials; and grand corruption by politicians ([Shah & Schacter, 2004](#)). E-government allows data to be captured electronically which basically allows frequent data sharing across all government departments and it becomes easier to identify cases of delays and corruption ([Yapa & Guah 2012](#)). It removes direct contact between government officials and citizens by allowing the latter to conduct the transactions themselves ([Mistry & Jalal, 2012](#)). However the principal-agent theory may explain the reasons why many governments have not fully automated government services despite being technologically advanced. There is conflict of interests between the principal (citizens) and the agents (bureaucrats, government officials, and politicians) and the former cannot monitor the latter fully because the computer generates bulky volumes of information ([Ojha, Plavia, & Gupta, 2008](#)).

Anti-corruption measures ideally centres around the removal of direct contact between government officials and citizens by allowing the latter to conduct the transactions themselves ([Mistry & Jalal, 2012](#)) so that no requests for bribes can be made. E-government has provided clear and successful solutions to many corruption problems in many countries by allowing open access to government information, increased accountability, facilitating anti-corruption measures and increasing transparency ([Bertot, Jaeger, & Grimes, 2012](#)). The Bhoomi project in Karnataka, for instance, has enabled Indians to monitor the transfer of land titles, increased the speed of accessing and updating records and reduced the opportunities for officials to demand bribes ([Bhatnagar, 2009](#)). Citizens in Seoul had to pay an express fee for the designated government officials to reduce the waiting time to learn about their applications and to provide faster service to them. But with e-government (the OPEN system), any citizen may check the status of his or her application at any stage. The computer also detects petitions which have been delayed and sends a report to the department concerned thereby reducing significantly the discretions of officers ([Shim & Eom, 2008](#)). This aspect of e-governance will be measured by the 'Transparency' dimension within the Republic of Mauritius.

METHODOLOGY

A random survey was conducted among 247 e-government users across all districts of the Republic of Mauritius in 2015 to generate a nationally representative data set. Most of the questionnaires were administered on a face to face basis except for some questionnaires which the researcher had to leave and collect at a later time. However, only 157 questionnaires could be used as these carried all the required information suitable for this study. This questionnaire on e-governance was a sensitive issue among many participants. The sample consists only of voluntary citizens who remained completely anonymous. All data were kept confidential. Also the participants could end the survey at any time without giving any reason and their data were then deleted.

A pilot study was initially conducted to correct for any ambiguity and to ensure that it covered all aspects relevant to e-governance in the Republic of Mauritius. The final questionnaire was modified accordingly. All items on the questionnaires were included after extensive literature and empirical review as displayed in the Appendix. The questionnaires were administered verbally in the native language 'Creole'. The respondents were also asked to elaborate on some of their answers which the researcher noted down. This enabled them to go beyond the mere 'tick' generally required with closed-ended questions. A Likert scale based on a five-point scale (1=strongly disagree to 5=strongly agree) was used to measure citizens' perceptions towards the PEOU, PU, collaboration, security, participation and transparency dimensions. The Likert scale was used as a summated scale to assess each dimension of e-governance in the Republic of Mauritius ([Albaum, 1997](#); [Al Athmay, 2013](#); [Al Athmay, 2015](#); [Clason & Dormody, 1994](#)).

The Statistical Package for Social Sciences (SPSS) was used for all analysis. Parametric tests such as Pearson's correlation coefficients, independent samples T-tests, one way or Welch ANOVA and Games-Howell post hoc test were used. The multiple comparison procedure done under ANOVA performs rather well even when the data deviates from normal distribution ([Verma 2013](#)). However it performs badly where sample sizes are not equal or when there is no homogeneity of variances. Following [Field \(2009\)](#), the Games-Howell post hoc test which is accurate in the case of unequal sample sizes and the Welch's F test which is appropriate in the absence of homogeneity of variances have been used wherever necessary to examine the perceptions of citizens towards the six dimensions of e-governance.

This study investigated whether citizens' perceptions towards e-governance differed by gender, age, education, sector of employment, income, marital status and area of residence. It also assessed whether access to the Internet ([Fu, Farn, & Chao, 2006](#)) and IT competency ([Ibrahim & Pope, 2011](#)) molded their perceptions about the six dimensions of e-governance. An attempt was made to measure the frequency of internet use ([van Dijk, Peters, & Ebbers, 2008](#); [Haider, Chen, Mangi, & Lalani, 2015](#)) but it was subsequently dropped because of missing data. Nevertheless the data used for this study is very rich and captures the perceptions of citizens from diverse socio-economic background. It was also

postulated that citizens' perceptions differed by their frequency of e-government use. Frequent exposure could either lead to greater appreciation or greater opportunity to find faults with the government websites.

E-GOVERNANCE DIMENSIONS

Characteristics of the Participants

The majority of the respondents had used government websites for applying for a job within the public sector (52.2%), for provisional driving license (44%) and for filing tax returns (43.9%). As displayed in Table 1, around 94% of the sample had internet connection at home (94%) and only around 43% had internet connection at work. The majority of respondents were men (57%), undergraduates (35%), aged between 18 to 25 years (41%), rural dwellers (65%), unmarried (58%), private sector employees (50%), with a monthly income less than Rs. 10001 (31%) and rarely used the internet (34%). The sample consists mainly of young and more educated people. These are consistent with existing studies where it has been argued that young people are most likely to use the Internet ([Choudrie & Lee 2004](#); [Choudrie & Dwivedi, 2005](#); [Dwivedi & Lal, 2007](#); [Mwangakala, 2012](#)) and education is positively related to the use of e-government services ([Al-Shafi & Weerakkody, 2010](#); [Taipale 2013](#); [Susanto, 2013](#); [Al Athmay, 2015](#); [Niehaves, Gorbacheva, & Plattfaut, 2013](#)).

Table 1: Characteristics of the Respondents

Factors	Number of citizens	Percentage	Factors	Number of citizens	Percentage
Sample size	157	100	Sex		
			Male	89	56.7
			Female	68	43.3
Age			Monthly income		
Between 18 to 25 years	64	40.8	Up to Rs 10000	48	30.6
	54	34.4	Between Rs 10001 to Rs 20000	43	27.4
Between 26 to 35 years	25	15.9		40	25.5
	14	8.9	Between Rs 20001 to Rs 35000	26	16.6
Between 36 to 45 years			Above Rs 35000		
Above 45 years			Internet connection at home		
Area of Residence			No	10	6.4
Urban	55	35	Yes	147	93.6
Rural	102	65	Internet connection at work		
Marital Status			No	45	28.7
Married or in a union	66	42	Yes	122	42.6
Not married or in a union	91	58	IT skills		
Occupation			Did not follow any course on IT	24	15.3
Private sector	79	50.3		62	39.5
Public sector	44	28	The module at college/university	71	45.2
Others	34	21.7	Certificate course in IT		
Education			Frequency of e-government use		
Up to 'O' level	28	17.8		47	29.9
Up to 'A' level	30	19.1	Very rarely	53	33.8
Certificate or Diploma	20	12.7	Rarely	19	12.1
Bachelor degree	55	35	Often	38	24.2
Postgraduate degree	24	15.3	Very often		

Citizens' Perceptions of the Six Dimensions

As displayed in Table 2, the Cronbach alphas of the six dimensions, that is, PEOU, PU, Collaboration, Security, Participation, and Transparency satisfy the conventional requirement of 0.7 and indicate good reliability ([Field, 2009](#)). Also none of the items within each construct had Corrected item-total Correlations below 0.3 which indicate good internal consistency. Thus, all items in each scale correlate well with the overall scale ([Field, 2009](#)). Also none of the items would improve reliability if they were removed from the analysis. All items in each construct contribute positively to the overall reliability of each dimension of e-governance.

Table 2: Reliability Analysis

Dimensions	Cronbach Alpha	Number of items
Perceived Ease of Use	0.75	4

Perceived Usefulness	0.70	8
Collaboration	0.75	7
Security	0.72	4
Participation	0.84	5
Transparency	0.70	5

Fig 2 displays the citizens' perceptions of e-governance dimensions in the Republic of Mauritius. On average the respondents revealed positive attitudes towards e-governance in the Republic of Mauritius for the core components of the TAM model: PEOU and PU. Given the five-point scale and the PEOU mean value above 3.0 (3.34 ± 0.76), citizens perceived government websites as being quite easy to use with little difficulty to operate the system, understand and seek information online. The PU mean score (3.35 ± 0.56) implied that citizens found the government websites to be quite useful especially in terms of its quality, accuracy, timeliness, links, and responsiveness which have improved their ways of interacting with the government. Citizens also saved money and time by adopting e-government. The mean values of the core constructs of the TAM indicated moderate favorableness toward the PEOU and PU dimensions of e-governance. In line with [Davis \(1989\)](#), PEOU is positively correlated with PU as determined by the significant Pearson correlation test ($r=0.632$, $n=157$, $p=0.000$) which means citizens will continue to use the government website as long as they find it useful and easy to use.

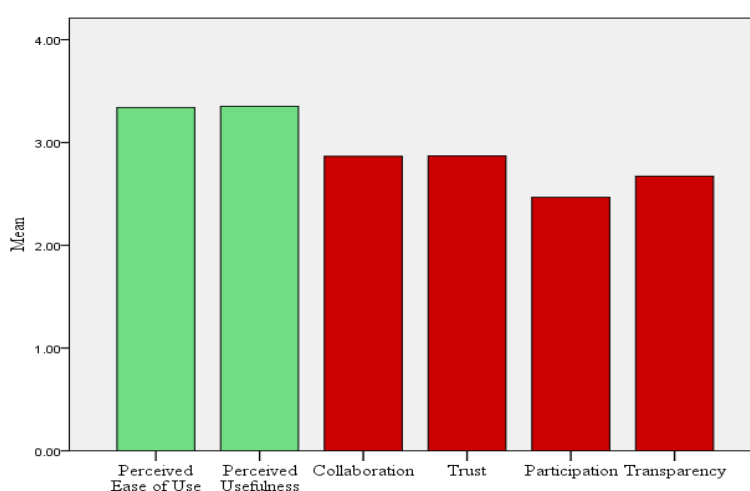


Figure 2: Citizens' Perceptions of E-Governance Dimensions in the Republic of Mauritius

As argued by [Danila & Abdullah, 2014](#), e-government may serve as a tool to encourage greater citizen involvement in democratic issues. This dimension of e-governance may be captured by the Collaborative aspect. The mean score for Collaboration (2.87 ± 0.67) revealed that citizens were not receiving adequate information and support from the government officials which in turn hindered their participation in current policy issues. They did not see greater coordination across government agencies. The government websites did not contain all key information and upon request different government officials gave totally different responses to the same query. Online communication was rather inefficient and ineffective. E-government has failed to act as a platform for democratic dialog. Less favorable perceptions were also obtained for the collaborative governance aspect of the United Arab Emirates which were attributed to the low awareness of how government made decisions in the UAE ([Al Athmay, 2013](#)).

The low mean value for Trust (2.87 ± 0.80) implied that citizens expressed their disagreement with the items in this construct. During the face to face administration of the questionnaires, citizens voiced out their concerns about privacy issues and the risks of conducting online transactions with the government. They displayed a low level of trust in the government website. They clearly stated that it was not safe to reveal personal and confidential information online and stressed upon the inadequacy of laws against cybercrimes to protect them. Some respondents said they would never reveal any personal and confidential information or insert details of their credit cards or conduct transactions on the government website. This is in line with the findings of [Rehman, Esichaikul, and Kamal \(2012\)](#) who reported that citizens used government websites only to search for information, download documents and send queries. This is also in line with [Warkentin et al. \(2002\)](#) and [Alomari \(2014\)](#) who argued that citizens would engage in e-government only if they trust government websites. Also PEOU positively affects citizens' trust in government websites ($r=0.389$, $n=157$, $p=0.000$) and PU also influences citizens' trust in e-government ($r=0.403$, $n=157$, $p=0.000$). Similar findings were reported by [Alsaghier, Ford, Nguyen, and Rene \(2009\)](#).

The low mean value for Participation (2.47 ± 0.83), revealed the negative attitudes of citizens on the e-participative aspects of e-governance in the Republic of Mauritius. They stated that they did not have a say in decision making. E-government did not enable them to help make decisions, neither were they consulted nor did their opinions matter to the government. They also felt that their online feedback was not valued by policymakers. Similar less favorable perceptions on the e-

participative aspect of e-governance were reported by [Al Athmay \(2013\)](#) and [Al Athmay \(2015\)](#). Some respondents pointed out that the Mauritian government portal contained no online forums to initiate discussions. It may be argued that e-governance initiatives have failed to provide adequate venues for citizens' participation. This is in line with the findings of [Tolbert and Mossberger \(2006\)](#).

The Republic of Mauritius was ranked 50th among 176 countries based on a Corruption Perception Index of 54 for 2016 where a scale of 0 implies that a country is highly corrupt to a scale of 100 which implies that the country is very clean ([Transparency International, 2017](#)). The low mean value on the Transparency dimension (2.67 ± 0.76), indicated that citizens did not see government activities as being transparent despite its use of ICT. According to the citizens, e-government was unsuccessful in reducing the discretionary powers of civil servants and ministers. Decisions or transactions could not be traced at successive stages and e-government could not link the corrupt to the wrongful deeds. Citizens did not feel that e-government could reduce corruption in the Republic of Mauritius. During the face to face administration of the questionnaires, some citizens stated that e-government did not guarantee increased transparency as the media and citizens did not have access to some information and the probability of discovering corrupt officials were rather low. Some citizens believed that the latter had immunity against prosecution. These are in line with the findings of [Bhatnagar \(2003\)](#). Other citizens simply did not believe that the use of electronic means could detect and deter corruption. These may partly explain the disagreement with the statements that government websites lead to reduced corruption and higher transparency.

Factors Influencing Citizens' Perceptions of E-governance Dimensions

Citizens' perceptions were also analyzed by demographic factors, IT skills, internet connectivity and frequency of e-government use to determine whether these changed the ways people perceive the different dimensions of e-governance in the Republic of Mauritius. Prior research on electronic government has emphasized their importance ([Al-Athmay 2015](#); [Ali, Tazilah, & Kamaruzaini 2016](#); [Akman, Yazici, Mishra, & Arifoglu, 2005](#); [Hung, Chang, & Yu, 2006](#); [Islam, Yusuf, & Bhuiyan, 2015](#); [Mutula 2008](#); [Mwangakala, 2012](#); [Rodrigues, Sarabdeen, & Gil-Garcia, 2016](#); [Schuppan, 2009](#); [Venkatesh, Morris, & Akerman, 2000](#); [Sawatsuk, Darmawijaya, Ratchusanti, & Phaokrueng, 2018](#); [Mizirak & Altinta, 2018](#)).

Citizens' perceptions have been examined by their age groups. However, user attitude towards PEOU, PU, Collaboration, Participation, and Transparency is not influenced by the age group to which the citizen belongs. There is a significant difference between age groups on the Trust dimension only which implies that age does not affect citizens' perceptions of the other 5 dimensions of e-governance.

Table 3: ANOVA by Age Group

Age group	N	Security dimension	
		Mean	Standard deviation
Between 18 to 25 years	64	3.06	0.79
Between 26 to 35 years	54	2.58	0.81
Between 36 to 45 years	25	3.10	0.54
Above 45 years	14	2.73	0.87
F-value		4.812***	

***significant at 0.1% level

There is a statistically significant difference between age groups on the Trust dimension as revealed by Welch ANOVA ($F(3, 153) = 4.863, p = 0.004$). A Games-Howell post hoc test reveals that the significant difference in the citizens' perceptions is between the 18 to 25 years and the 26-35 years ($p = 0.006$) as well as between the 26 to 35 years and the 36 to 45 years ($p = 0.03$). As shown in Table 3, the mean value of the security dimension is significantly higher for the 18 to 25 years (3.06 ± 0.79) and for the 36 to 45 years (3.1 ± 0.54) compared to the 26 to 35 years old citizens (2.58 ± 0.81). Those citizens aged between 26 to 35 years were rather dissatisfied about the inadequacy of laws against cybercrime, inability to keep their information safe and confidential. Compared to the other two age groups, most of them were employed in the private sector (around 59%) and perhaps they did not feel compelled to speak in favor of e-government. [Al Athmay \(2013\)](#) adopted this line of reasoning and stated the reverse for public sector employees. Basically the lack of security jeopardizes users' personal information and exposes it to unauthorized modifications which reduce the willingness of individuals to use online public services ([Sharma, 2015](#)).

Citizens' perceptions also differed by their education level. There are significant differences between education categories as determined by the Welch ANOVA ($F(4, 152) = 3.886, p = 0.007$) for the perceived ease of use dimension, the One-Way ANOVA ($F(4, 152) = 3.388, p = 0.011$) for the collaboration dimension and the One-Way ANOVA ($F(4, 152) = 3.840, p = 0.005$) for the participation dimension of e-governance. These are displayed in Table 4.

The effect of education on PEOU dimension of e-governance was examined first. It may be deduced from the Games-Howell post hoc test that those who did up to 'A' level ($p = 0.046$) or had an undergraduate degree ($p = 0.003$) were statistically significantly different from those who did 'O' level only. The latter attached greater value (3.73 ± 0.52) to the perceived ease of use dimension compared to those who had done up to 'A' level (3.19 ± 0.87) or undergraduate degrees

(3.32±0.71). Those citizens with 'O' level had higher PEOU perceptions compared to the other two educational groups, for instance, they increasingly agreed that government websites were user-friendly, understandable, well designed and information could be easily found. Nevertheless people with 'A' level and undergraduate degrees had moderately favorable attitudes towards the PEOU value of e-governance. This may be attributed to the possibility that as people acquire more education they increasingly look for well-designed websites.

The effect of education on the Collaboration dimension was also examined. There is a statistically significant difference in the mean perception of the collaboration dimension of e-governance among those who did up to 'O' level only and those with postgraduate degrees ($p=0.01$). The mean value of the collaboration dimension was significantly lower for the postgraduate group (2.54±0.71) compared to those who did 'O' level only (3.19±0.65). Here the former category was rather dissatisfied with the poor provision of online information and support, inefficient and ineffective online communication, lower coordination among government departments and officials, failure to encourage citizen participation and to act as a channel for democratic dialog. People within the 'O' level category displayed moderately favorable perceptions on the collaboration dimension of e-governance in Mauritius. It may be deduced that as the citizens acquired more education, the mean value attached to the collaboration dimension of e-governance fell, implying that the more educated tend to have negative attitudes towards this collaborative aspect. This may be attributed to the maturity level acquired as education level rises (Al Athmay 2015) that is, the increased ability to detect the shortcomings of online communication channels and government websites malfunction.

Table 4: ANOVA by Education Level

Highest qualification attained	N	Perceived Ease of Use		Collaboration		Participation	
		Mean	S.D	Mean	S.D	Mean	S.D
O level	28	3.73	0.52	3.19	0.65	2.92	0.79
A level	30	3.19	0.88	2.82	0.65	2.43	0.82
Certificate / diploma	20	3.23	0.83	2.91	0.70	2.64	0.95
Undergraduate degree	55	3.32	0.71	2.85	0.60	2.24	0.73
Postgraduate degree	24	3.21	0.80	2.54	0.71	2.36	0.80
F-value		2.58*		3.39*		3.84***	

*significant at 5% level

***significant at 0.1% level

S.D. = Standard deviations

Education also has a significant impact on the Participation dimension. For the participation dimension of e-governance, there was a statistically significant difference between 'O' level holders and undergraduates ($p=0.03$). The mean value of the participation dimension was higher for those citizens with 'O' level only (2.93±0.79) compared to the undergraduates (2.24±0.73). Both groups did not seem to enjoy the democratic privileges that ought to arise as a result of e-governance such as the feeling of being consulted, ability to voice out opinions whereby citizens' opinions matter, citizen contribution through valuable input into the political process and feedbacks from citizens taken into account by the government. Both groups had negative attitudes towards this dimension of e-governance, implying that they did not feel part of e-democracy. Again as the level of education rose, people tended to disagree with the hypothesis that the Government of Mauritius is encouraging citizen engagement. During the face to face administration of the questionnaires, it was noted that many citizens had not experienced this aspect and thus were unable to answer the questions. They felt amazed at the possibility of government websites ideally aiming to promote e-democracy and to reduce many of their miseries such as corruption. But as pointed out by Lallmahomed, Lallmahomed, and Lallmahomed (2017), e-government in Mauritius is still at its static stage.

Lai and Pires (2010) laid much emphasis on how frequent a citizen uses the e-government portal. Thus the effect of frequency of e-government use on citizens' perceptions of e-governance in the Republic of Mauritius was investigated. However, there is insufficient evidence to reject the hypothesis that the frequency of e-government use does not affect the PEOU, PU, Trust, Participation and Transparency dimensions. There is a statistically significant difference between the groups for frequency of e-government use on the collaboration dimension only, as unraveled by the One-way ANOVA ($F(3, 152) = 3.97, p=0.03$). Those who use government websites very rarely are significantly different from those who use them on a rarely basis ($p=0.014$). The mean value for those who 'rarely' used government websites (3.06 ± 0.61) was higher compared to those who used them 'very rarely' (2.66 ± 0.67). As shown in Table 5, the very rare e-government users had negative attitudes towards this dimension of e-governance and the rare users displayed positive attitudes towards the collaborative aspect. Thus it may be concluded that citizens' perceptions differed by the frequency of their e-government use on the collaboration dimension of e-governance at least between these two groups of users.

Table 5: ANOVA by Frequency of E-Government Use

Frequency of use	N	Collaboration	
		Mean	Standard Deviation
Very rarely	47	2.66	0.67
Rarely	53	3.06	0.61

Often	19	2.90	0.64
Very often	38	2.84	0.71
F-value			3.07*

*significant at 5% level

However, there is insufficient evidence to suggest that the six dimensions of e-governance in the Republic of Mauritius are influenced by gender, income, marital status, rural/urban areas, occupation, internet connection at home or at work and IT skills. These are in line with existing studies ([van Dijk, Peters, & Ebberts, 2008](#); [Ibrahim & Pope, 2011](#); [Taipale, 2013](#); [Alam, 2012](#), [Belanger & Carte, 2006](#)) where these factors do not affect e-government use. Due to the free access to education since 1976 in the Republic of Mauritius and high enrolment rate of girls at schools and universities ([Statistics Mauritius, 2016](#)), the gender gap, especially in educational achievements, is practically non-existent which may translate into their abilities to develop IT skills and use government websites. People do not usually reveal they're true income for fear of being sued by the tax department or being harmed by others and this reluctance was detected during the face to face administration of the questionnaires. This may explain the insignificance of income in this study. Most of the studies conducted on e-government do not include the marital status of the respondents except when e-government use by married parents are studied on teenagers to understand the latter's chances of subsequently using government websites or to examine whether or not marital status increases the odds of adopting e-government. However this study did not address this situation.

The Republic of Mauritius does not suffer from major digital divide across its rural and urban areas which may explain why no statistically significant difference was found in the perceptions of urban and rural dwellers towards the e-governance dimensions. Self-employment, employment in the public and private sectors are distinct and they influence e-government use either directly ([Islam, Yusuf, & Bhuiyan, 2015](#)) or through social influence ([Venkatesh, Morris, Davis, & Davis, 2003](#)). But this study does not differentiate between those in self-employment and the private sector because of the small sample size and no comparison between public sector employees and the self-employed is possible. But the research still yields a rich data set. Also, around 97% of the sample has internet connection either at home or at work which meant that only 5 individuals did not have internet connectivity. This may explain the insignificant influence of internet connection on citizens' perceptions of e-governance dimensions. IT skills may not explain any significant difference in citizens' perceptions of e-governance as the sample consists of mainly youngsters and age affects e-government use directly ([Dwivedi & Lal, 2007](#)). Younger citizens are more technology-savvy than old citizens.

Thus it may be argued that citizens' perceptions towards perceived ease of use, perceived usefulness, collaboration, trust, participation, and transparency are not affected by income, gender, marital status, occupation, rural/urban areas, IT skills and internet connection at home or at work. Age affects citizens' perceptions of trust in the government website while education affects the PEOU, collaborative and participative aspects of e-governance and frequency of e-government use affects collaborative e-governance only.

CONCLUSION AND POLICY IMPLICATIONS

This study has generated key insights into the factors influencing citizens' perceptions towards the six e-governance dimensions (PEOU, PU, Collaboration, Trust, Participation, and Transparency) and these insights were non-existence prior to this research. Thus this study may aid policymakers to rethink and redesign their e-government initiatives to sustain existing users and attract more users of government websites.

E-government is about using ICT to provide government services and it is a subset of the much broader concept of e-government. This research focuses on six dimensions of e-governance with emphasis laid upon demographic factors, internet connectivity, IT skills and frequency of e-government use. The Cronbach alphas of the six dimensions indicate good reliability and good internal consistency. Education affects the PEOU dimension and the more educated tend to exhibit moderate favourableness towards this dimension of e-governance. The Collaboration dimension is influenced by the education level of the citizens and their frequency of e-government use whereby the less educated and rare users display positive attitudes. Age influences citizens' perceptions of the Trust dimension with those aged between 26 to 35 years and those aged above 45 years showing distrust in the Mauritian website. Citizens' perceptions do not change according to their gender, income level, marital status, occupation, urban/rural residences, IT skills and whether they had internet connections or not.

The use of government websites must be encouraged as those citizens who use e-government tend to develop more positive attitudes about the effectiveness of the government in solving problems and this ensures positive attitudes towards the government itself ([Alomari, Sandhu, & Woods 2009](#)). The overall moderate favourableness of the core constructs of the Technology Acceptance Model (PEOU and PU) and the positive correlation between them suggest that citizens would continue to use government websites as they are useful and easy to use. As pointed out by [Ranaweera \(2016\)](#), the government should ensure that all government websites function effectively and are able to offer e-services at the minimum cost. There should be a combination of easy access to the Internet, error-free websites, task completeness, secure and high-quality online services.

It may be concluded that citizens had less favorable perceptions towards the Collaboration, Trust, Participation and Transparency dimensions where Participation had the least mean value, followed by Transparency, Trust and Collaboration. This may imply that it would be difficult for the government to implement new e-governance initiatives as citizens would not readily accept them. The government must first address the citizens' negative attitudes towards these four dimensions of e-governance before embarking on new e-governance projects.

The mean Participation value is the lowest out of the 6 dimensions and this is a major cause for concern. Influencing public policy decisions is not possible with the current passive participation mode which allows only one-way communication pertaining mostly to the delivery of information requested. Active participation is required from the citizens of the Republic of Mauritius in all aspects of governance where they would monitor administrative activities and form consensus on issues of concern. Policymakers should promote two-way communication so as to increase online participation. Appropriate venues such as bulletin boards, chat rooms and discussion forums ([Tolbert & Mossberger, 2006](#)) should be encouraged. Also online display of information such as meeting schedules, legislations, data and contact details are required.

Given the low perceived trust value among the citizens of the Republic of Mauritius and in line with the arguments of [Carter and Weerakkody, \(2008\)](#), lack of trust poses a major barrier to the adoption of e-government. Perceived risks must be low, that is, the government officials should solve privacy and security issues. Privacy and security statements must be published online, especially on webpages where people are supposed to submit their personal information and perform online transactions so that they are aware of the government's policy on privacy and security issues. Citizens must also be aware of how their personal and confidential information will be handled.

The use of ICT in government activities within developing countries has resulted in reduced corruption ([Mistry & Jalal, 2012](#)). Given the low perceived value of the Transparency dimension of e-governance in the Republic of Mauritius, greater efforts must be put into redesigning the actual system to increase accountability, reduce arbitrary decisions and track the corrupts. This may be achieved through the use of a sophisticated computer system that detects long waiting time of pending applications and alerts the designated department. E-governance will then result in the better and equal provision of government services, and at the same time will remove bottlenecks in transactions. There should also be mechanisms that report corruption effectively ([Singh, Pathak, Naz, & Belwal, 2010](#)) and the corrupts must be punished severely.

The stumbling block in e-government initiatives in the Republic of Mauritius is the small percentage of citizens who are willing to use e-government continuously. The problem is twofold. The first problem is related to the access and use of ICT. This may be supported by the internet penetration rate of 42.5% for 2016 ([Internet Live Stats, 2016](#)) which still leaves a significant proportion of the nation with no access to the Internet. The second problem is that access to the Internet does not always translate into e-government use. The low usage of online government services has been attributed to the unawareness of the existence of e-government services and citizens having no reason for using it ([Sanmukhiya & Roopchand, 2016](#)). The current study may, therefore, help policymakers to understand how existing e-government users in the Republic of Mauritius perceive the six dimensions of e-governance. Government officials may then act accordingly and bring change to the way they operate to attract more citizens and sustain their interests in the websites.

As an evolutionary phenomenon, e-government initiatives may also improve the citizen-government relationship. As advocated by [Saxena \(2005\)](#), a governance-centric or a citizen-centric approach must be adopted instead of the technocentric approach to ensure the success of e-governance initiatives. The latter only focuses on technological capabilities, technology use, and efficiency. The governance-centric approach, on the other hand, focuses on the effectiveness of e-governance measures and is not only efficiency-driven. It also requires openness and legitimate right to access government information and engage in decision making with the government. This is in line with the concept of democracy.

The customer-centric approach of [Wind and Rangaswamy \(2001\)](#) may be applied. The citizen should be fully involved in all aspects of e-governance so as to create the word of mouth ([Alomari, 2014](#)) or the critical mass of e-government users ([Lallmahomed et al., 2017](#)) and to guarantee the continued use of government websites. It is absolutely fundamental for the Mauritian government to engage its citizens throughout the whole e-government process which constitute web design, the ability to comprehensively understand the quality of online services by guarantying efficiency and effective online communication. [Haider, Shuwen, and Hyder \(2014\)](#) argue that public-private partnerships are required across all e-government programs. However, there is also the need to increase citizens' understanding of the existing technologies to enable them to benefit from all e-government services ([Belwal & Al-Zoubi, 2008](#)).

Nevertheless, e-governance does not happen by chance and citizens' attitudes do not change overnight. As a matter of fact, it becomes mandatory for the government to reconceptualize its services. Some important factors such as administrative priorities, high quality of public e-services, integration, proper ICT infrastructures, political will, secure online environment, legislation, adequate human capital, positive attitudes of government officials, honesty and ethical behaviour of government officials are pre-requisites to ensure the success of e-government initiatives ([Garson, 2005](#)). Here civil servants must have the willingness to re-orient themselves towards online services, have the required IT skills and promote a culture of honesty and integrity. These measures would encourage e-government adoption in the Republic of Mauritius.

However, absence of online democratic dialog, lack of trust, inadequate e-consultation and non-transparent decision making will continue to pose as major restraints to e-governance initiatives if these remain unresolved. Government websites would be used only to seek and download information but not for transaction purposes and feedbacks. Along with low perceived transparency, these might eventually lower trust in the government itself.

SUGGESTIONS FOR FUTURE STUDIES

This study could not capture citizens' perceptions about trust in the Mauritian government itself due to missing data. Another research may be conducted on a larger scale at a later point in time to assess the extent to which new and improved e-government initiatives would have covered these six dimensions of e-governance including trust in the government itself which may be a pre-requisite to e-government adoption (Welch, Hinnant, & Moon, 2005; Rehman, et al., 2012).

It should be noted that this study does not incorporate the views of civil servants and policymakers about e-governance. Another study may be conducted to gather their views on the purpose of e-governance initiatives. This would help to determine whether their aims are restricted to information provision, improving e-service quality and looking only at efficiency aspects or they aim at encouraging an interactive dialogue, consult citizens and engage them in decision making to promote e-democracy (Kolsaker & Lee-Kelley, 2009).

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REFERENCES

1. Adebayo, F., & Bilquis, M. (2018). E-Governance and Effective Bureaucratic Practices in Nigeria Civil. *International Journal of Business and Administrative Studies*, 4(3), 105-121. <https://doi.org/10.20469/ijbas.4.10003-3>
2. Akman, I., Yazici, A., Mishra, A., & Arifoglu, A. (2005). E-Government: A global view and an empirical evaluation of some attributes of citizens. *Government Information Quarterly*, 22(2), 239-257. <https://doi.org/10.1016/j.giq.2004.12.001>
3. Al Athmay, A. A. R. A. (2015). Demographic factors as determinants of e-governance adoption: a field study in the United Arab Emirates (UAE). *Transforming Government: People, Process and Policy*, 9(2), 159-180. <https://doi.org/10.1108/TG-07-2014-0028>
4. Al Athmay, A. A. R. A. (2013). Citizens' perceptions towards e-governance: field study. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 7(9), 2576-2584.
5. Alam, M. J. (2012). E-governance in Bangladesh: Present problems and possible suggestions for future development. *International Journal of Applied Information Systems (IJ AIS)*, 4(8), 21-25. <https://doi.org/10.5120/ijais12-450804>
6. Alasem, A. N. (2015) *Privacy and E-government in Saudi Arabia*. Presented at the *World Congress on Engineering and Computer Science WCECS*, October 21-23, San Francisco, USA.
7. Alawneh, A., Al-Refai, H., & Batiha, K. (2013). Measuring user satisfaction from e-Government services: Lessons from Jordan. *Government Information Quarterly*, 30(3), 277-288. <https://doi.org/10.1016/j.giq.2013.03.001>
8. Albaum, G. (1997). The Likert scale revisited. *Market Research Society. Journal.*, 39(2), 1-21. <https://doi.org/10.1177/147078539703900202>
9. Ali, M. A. M., Tazilah M. D. A. B. K., & Kamaruzaini K. I. (2016), A Study on the Determinants of Taxpayer's Intention Towards Manual Tax System, Case Study in Klang Valley. *International Journal of Business, Economics and Law* 10(1), 14-22.
10. Alomari, M. K. (2014). Discovering citizens reaction toward e-government: factors in e-government adoption. *JISTEM-Journal of Information Systems and Technology Management*, 11(1), 5-20. <https://doi.org/10.4301/S1807-17752014000100001>
11. Alomari, M. K., Sandhu, K., & Woods, P. (2009). *E-government Adoption in the Hashemite Kingdom of Jordan: Factors from Social Perspectives*. Presented at the *ICITST 2009: 4th International Conference for Internet Technology and Secured Transactions*, November 9-12, London, UK. <https://doi.org/10.1109/ICITST.2009.5402528>
12. Alsaghier, H., Ford, M., Nguyen, A., & Hexel, R. (2009, July). Development of an Instrument to Measure Theoretical Constructs of a Model of Citizens' Trust in e-Government. In *Proceedings of the 8th European Conference on Information Warfare and Security, Military Academy, Lisbon and the University of Minho, Braga, Portugal* (p. 65).
13. Al-Shafi, S., & Weerakkody, V. (2010). Factors affecting e-government adoption in the state of Qatar.
14. Bannister, F., & Connolly, R. (2012). Defining e-governance. *e-Service Journal: A Journal of Electronic Services in the Public and Private Sectors*, 8(2), 3-25. <https://doi.org/10.2979/eservicej.8.2.3>

15. Belanger, F. & Carter, L. (2006). *The Effects of the Digital Divide on E-government: An Empirical Evaluation*. Proceedings of the 39th Hawaii International Conference on System Sciences, January 4-7, Kauai, USA. <https://doi.org/10.1109/HICSS.2006.464>
16. Belanger, F., & Carter, L. (2008). Trust and risk in e-government adoption. *The Journal of Strategic Information Systems*, 17(2), 165-176. <https://doi.org/10.1016/j.jsis.2007.12.002>
17. Belanger, F., & Carter, L. (2009). The impact of the digital divide on e-government use. *Communications of the ACM*, 52(4), 132-135. <https://doi.org/10.1145/1498765.1498801>
18. Belwal, R., & Al-Zoubi, K. (2008). Public centric e-governance in Jordan: A field study of people's perception of e-governance awareness, corruption, and trust. *Journal of Information, Communication and Ethics in Society*, 6(4), 317-333. <https://doi.org/10.1108/14779960810921123>
19. Bertot, J., Jaeger, P. T., & Grimes, J. M. (2012). Promoting transparency and accountability through ICTs, social media, and collaborative e-government. *Transforming government: people, process and policy*, 6(1), 78-91. <https://doi.org/10.1108/17506161211214831>
20. Bhatnagar, S. (2003). *Transparency and Corruption: Does E-government Help?* New Delhi: India CHRI Report OPEN SESAME: Looking for the Right to Information in the Commonwealth.
21. Bhatnagar, S. (2009). *Unlocking e-government potential: Concepts, cases and practical insights*. SAGE Publications India.
22. Biju, A. V. (2016). Social connectivity of local governments: A social network analysis based on Kerala local governments. *Journal of Advances in Humanities and Social Sciences*, 1(2), 44-54. <https://doi.org/10.20474/jahss2.1.5>
23. Bussell, J. (2012). E-Governance and Corruption in the States. *Economic & Political Weekly*, 47(25), 77.
24. Carter, L., & Belanger, F. (2005). The utilization of e-government services: citizen trust, innovation and acceptance factors. *Information systems journal*, 15(1), 5-25. <https://doi.org/10.1111/j.1365-2575.2005.00183.x>
25. Carter, L., & Weerakkody, V. (2008). E-government adoption: A cultural comparison. *Information systems frontiers*, 10(4), 473-482. <https://doi.org/10.1007/s10796-008-9103-6>
26. Choudrie, J., & Dwivedi, Y. K. (2005). The demographics of broadband residential consumers in a British local community: The London borough of Hillingdon. *Journal of Computer Information Systems*, 45(4), 93-101.
27. Choudrie, J., & Lee, H. (2004). Broadband development in South Korea: institutional and cultural factors. *European Journal of Information Systems*, 13(2), 103-114. <https://doi.org/10.1057/palgrave.ejis.3000494>
28. Clason, D. L., & Dormody, T. J. (1994). Analyzing data measured by individual Likert-type items. *Journal of agricultural education*, 35(4), 4. <https://doi.org/10.5032/jae.1994.04031>
29. Coleman, S. (2006). *African e-governance: opportunities and challenges*. Oxford University Press, University of Oxford.
30. Danila, R., & Abdullah, A. (2014). User's satisfaction on e-government services: An integrated model. *Procedia-Social and Behavioral Sciences*, 164, 575-582. <https://doi.org/10.1016/j.sbspro.2014.11.148>
31. Das, R. K., Patra M. R. & Panda S. K. 2011. *Citizen Participation in Rural E-governance: A Case Study in the Indian Context*. Presented at the 5th International Conference on Theory and Practice. September 26-29, Tallinn, Estonia. <https://doi.org/10.1145/2072069.2072129>
32. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340. <https://doi.org/10.2307/249008>
33. De Silva, D. K. (2016). *Developing Service Oriented Government Agencies: Observations on the Divisional Secretariats in Galle, Sri Lanka* (Doctoral dissertation, College of Innovation, Thammasat University).
34. Dianita, M. (2015). Role of the internal auditor influence and good corporate governance in banking financial performance against state owned corporation. *International Journal of Business and Administrative Studies*, 1(4), 176-179. <https://doi.org/10.20469/ijbas.10006-4>
35. Dong, L., & Keshavjee, K. (2016). Why is information governance important for electronic healthcare systems? A Canadian experience. *Journal of Advances in Humanities and Social Sciences*, 2(5), 250-260. <https://doi.org/10.20474/jahss-2.5.1>
36. Dwivedi, Y. K., & Lal, B. (2007). Socio-economic determinants of broadband adoption. *Industrial Management & Data Systems*, 107(5), 654-671. <https://doi.org/10.1108/02635570710750417>
37. Eze, I. O. (2017). Corporate governance mechanisms and earnings management in Nigerian food product companies. *Journal of Administrative and Business Studies*, 3(1), 1-9. <https://doi.org/10.20474/jabs-3.1.1>
38. Eze, I. O. (2017). Corporate governance mechanisms and earnings management in Nigerian food product companies. *Journal of Administrative and Business Studies*, 3(1), 1-9. <https://doi.org/10.20474/jabs-3.1.1>
39. Fasunwon, A., & Mohammed, B. (2018). E-Governance and Effective Bureaucratic Practices in Nigeria Civil. *International Journal of Business and Administrative Studies*, 4(3), 105-121. <https://doi.org/10.20469/ijbas.4.10003-3>
40. Field, A. (2009). *Discovery Statistics Using SPSS: and sex, and drugs and rock 'n' roll*.
41. Fu, J. R., Farn, C. K., & Chao, W. P. (2006). Acceptance of electronic tax filing: A study of taxpayer intentions. *Information & Management*, 43(1), 109-126. <https://doi.org/10.1016/j.im.2005.04.001>
42. Garson, G. D., (2005). E-government: A Research Perspective. *International Journal of Public Administration* 28(7), 547-551. <https://doi.org/10.1081/PAD-200064157>

43. Gefen, D., & Straub, D. W. (1997). Gender differences in the perception and use of e-mail: An extension to the technology acceptance model. *MIS quarterly*, 389-400. <https://doi.org/10.2307/249720>
44. Gilbert, D., Balestrini, P., & Littleboy, D. (2004). Barriers and benefits in the adoption of e-government. *International Journal of Public Sector Management*, 17(4), 286-301. <https://doi.org/10.1108/09513550410539794>
45. Gudavalli, M., Kumar, D. S., & Raju, S. V. (2014). Securing e-governance services through biometrics. *International Journal of Security and Its Applications*, 8(1), 103-112. <https://doi.org/10.14257/ijisia.2014.8.1.10>
46. Haider, Z., Shuwen C. & Hyder S. 2014. Citizens' Participation in E-government Services: A Comparative Study of Pakistan and Singapore. *IOSR Journal of Electronics and Communication Engineering (IOSR-JECE)* 9(6), 35-48. <https://doi.org/10.9790/2834-09613548>
47. Haider, Z., Shuwen, C., Lalani, F., & Mangi, A. A. (2015). Adoption of e-Government in Pakistan: Supply perspective. *International Journal of Advanced Computer Science and Applications*, 6(6), 55-63. <https://doi.org/10.14569/IJACSA.2015.060609>
48. Hamid, A. A., Razak, F. Z. A., Bakar, A. A., & Abdullah, W. S. W. (2016). The effects of perceived usefulness and perceived ease of use on continuance intention to use e-government. *Procedia Economics and Finance*, 35, 644-649. [https://doi.org/10.1016/S2212-5671\(16\)00079-4](https://doi.org/10.1016/S2212-5671(16)00079-4)
49. Hassan, S. (2004). Corruption and the development challenge. *Journal of Development Policy and Practice*, 1(1), 25-41.
50. Hung, S. Y., Chang, C. M., & Yu, T. J. (2006). Determinants of user acceptance of the e-Government services: The case of online tax filing and payment system. *Government Information Quarterly*, 23(1), 97-122. <https://doi.org/10.1016/j.giq.2005.11.005>
51. Ibrahim, I. & Pope J. (2011). *Compliance Costs of Electronic Tax Filing for Personal Taxpayers in Malaysia*. Presented at the *International Conference on Management* June 13-14. Penang, Malaysia.
52. Internet Live Stas. (2016). *Mauritius Internet Users*. Retrieved From: <https://bit.ly/2XI01CB>
53. Islam, M. A., Yusuf, D. H. M., & Bhuiyan, A. B. (2015). Taxpayers' Satisfaction in Using E—Fih 'ng System in Malaysia: Demographic Perspective. *The Social Sciences*, 10(2), 160-165.
54. Jahangir, N., & Begum, N. (2008). The role of perceived usefulness, perceived ease of use, security and privacy, and customer attitude to engender customer adaptation in the context of electronic banking. *African journal of business management*, 2(2), 032-040.
55. Kolsaker, A., & Lee-Kelley, L. (2009). Singing from the same hymnsheet? the impact of internal stakeholders on the development of e-democracy. *Electronic Journal of e-Government*, 7(2).
56. Kumar, V., Mukerji, B., Butt, I., & Persaud, A. (2007). Factors for successful e-government adoption: A conceptual framework. *Electronic Journal of E-government*, 5(1).
57. Lai, C. S. K., & Pires, G. (2010). Testing of a model evaluating e-government portal acceptance and satisfaction. *Electronic Journal of Information Systems Evaluation*, 13(1), 35.
58. Lallmahomed, M. Z., Lallmahomed, N., & Lallmahomed, G. M. (2017). Factors influencing the adoption of e-Government services in Mauritius. *Telematics and Informatics*, 34(4), 57-72. <https://doi.org/10.1016/j.tele.2017.01.003>
59. Lee, A., & Levy, Y. (2014). The effect of information quality on trust in e-government systems' transformation. *Transforming Government: People, Process and Policy*, 8(1), 76-100. <https://doi.org/10.1108/TG-10-2012-0011>
60. Lee, Y., Kozar, K. A., & Larsen, K. R. (2003). The technology acceptance model: Past, present, and future. *Communications of the Association for information systems*, 12(1), 50. <https://doi.org/10.17705/1CAIS.01250>
61. Lin, F., Fofanah, S. S., & Liang, D. (2011). Assessing citizen adoption of e-Government initiatives in Gambia: A validation of the technology acceptance model in information systems success. *Government Information Quarterly*, 28(2), 271-279. <https://doi.org/10.1016/j.giq.2010.09.004>
62. Mahmood, R. (2004). Can information and communication technology help reduce corruption? How so and why not: Two case studies from South Asia. *Perspectives on Global Development and Technology*, 3(3), 347-373. <https://doi.org/10.1163/1569150042442539>
63. Marangunić, N., & Granić, A. (2015). Technology acceptance model: a literature review from 1986 to 2013. *Universal Access in the Information Society*, 14(1), 81-95. <https://doi.org/10.1007/s10209-014-0348-1>
64. Marche, S., & McNiven, J. D. (2003). E-government and e-governance: the future isn't what it used to be. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 20(1), 74-86. <https://doi.org/10.1111/j.1936-4490.2003.tb00306.x>
65. Mathieson, K. (1991). Predicting user intentions: comparing the technology acceptance model with the theory of planned behavior. *Information systems research*, 2(3), 173-191. <https://doi.org/10.1287/isre.2.3.173>
66. Meijer, A. (2015). E-governance innovation: Barriers and strategies. *Government Information Quarterly*, 32(2), 198-206. <https://doi.org/10.1016/j.giq.2015.01.001>
67. Mercuri, R. T. (2005). Trusting in transparency. *Communications of the ACM*, 48(5), 15-19. <https://doi.org/10.1145/1060710.1060726>

68. Mistry, J. J., & Jalal, A. (2012). An empirical analysis of the relationship between e-government and corruption. *International Journal of Digital Accounting Research*, 12. https://doi.org/10.4192/1577-8517-v12_6
69. Mizirak, Z., & Altıntaş, K. (2018). The nexus between governance factors and foreign direct investments: Evidence from panel data. *JABS*, 4(1), 1-8. <https://doi.org/10.20474/jabs-4.1.1>
70. Mizirak, Z., and Altıntaş, K. (2018). The nexus between governance factors and foreign direct investments: Evidence from panel data. *Journal of Administrative and Business Studies*. 4(1): 1-8. <https://doi.org/10.20474/jabs-4.1.1>
71. Mutula, S. M. (2008). Comparison of sub-Saharan Africa's e-government status with developed and transitional nations. *Information Management & Computer Security*, 16(3), 235-250. <https://doi.org/10.1108/09685220810893199>
72. Mwangakala, H. (2012). *The Effect of Demographic Characteristics on Citizens' Usage of Government Websites*. Retrieved from: <https://bit.ly/2ScG1Pi>. <https://doi.org/10.2139/ssrn.2146597>
73. Nabafu, R., & Maiga, G. (2012). A model of success factors for implementing local e-government in Uganda.
74. Niehaves, B., Gorbacheva, E., & Plattfaut, R. (2013). The digital divide vs. the e-government divide: Do socio-demographic variables (still) impact e-government use among onliners?. In *e-Government Success Factors and Measures: Theories, Concepts, and Methodologies* (pp. 52-65). IGI Global. <https://doi.org/10.4018/978-1-4666-4058-0.ch004>
75. Ojha, A., Palvia, S., & Gupta, M. P. (2008). A model for impact of e-government on corruption: Exploring theoretical foundations. *Critical thinking in e-governance*, 160-170.
76. Öktem, M. K., Demirhan, K., & Demirhan, H. (2014). The Usage of E-Governance Applications by Higher Education Students. *Educational Sciences: Theory and Practice*, 14(5), 1925-1943. <https://doi.org/10.12738/estp.2014.5.2051>
77. Papadomichelaki, X., & Mentzas, G. (2011). Analysing e-government service quality in Greece. *Electronic Government, An International Journal*, 8(4), 290-308. <https://doi.org/10.1504/EG.2011.042808>
78. Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahlila, S. (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet research*, 14(3), 224-235. <https://doi.org/10.1108/10662240410542652>
79. Porter, J. (2008). *Designing for the social web* (Vol. 1). Berkeley, CA: New Riders.
80. Ranaweera, H. M. B. P. (2016). Perspective of trust towards e-government initiatives in Sri Lanka. *SpringerPlus*, 5(1), 22. <https://doi.org/10.1186/s40064-015-1650-y>
81. Rehman, M., Kamal M. & Esichaikul V. (2012). Determinants of Trust in E-government Adoption: A Case Study of Pakistan. Presented at the 18th *Americas Conference on Information Systems*. AMCIS, April 02, Washington
82. Rodrigues, G., Sarabdeen, J., & Balasubramanian, S. (2016). Factors that influence consumer adoption of e-government services in the UAE: A UTAUT model perspective. *Journal of Internet Commerce*, 15(1), 18-39. <https://doi.org/10.1080/15332861.2015.1121460>
83. Rogers, E. (1983). Diffusion of innovations.
84. Rorissa, A., & Demissie, D. (2010). An analysis of African e-Government service websites. *Government Information Quarterly*, 27(2), 161-169. <https://doi.org/10.1016/j.giq.2009.12.003>
85. Sanmukhiya, C. & Roopchand B. (2016). *E-government Non-adoption in the Republic of Mauritius. Presented at the 5th International Conference on Studies in Humanities and Social Sciences (SHSS-2016)*, December 5-6, Singapore: Emirates Research Publishing Limited.
86. Sawatsuk, Darmawijaya, I., Ratchusanti, S., & Phaokrueng, A. (2018). Factors determining the sustainable success of community-based tourism: Evidence of good corporate governance of Mae Kam Pong Homestay, Thailand. *International Journal of Business and Economic Affairs*, 3(1), 13-20. <https://doi.org/10.24088/IJBEA-2018-31002>
87. Saxena, K B. C. (2005). *Towards Excellence in E-Governance*. Gurgaon, India: CEXIM Working Paper Series
88. Schuppan, T. (2009). E-Government in developing countries: Experiences from sub-Saharan Africa. *Government Information Quarterly*, 26(1), 118-127. <https://doi.org/10.1016/j.giq.2008.01.006>
89. Shah, A., & Schacter, M. (2004). Combating corruption: look before you leap. *Finance and Development*, 41(4), 40-43.
90. Sharma, S. K. (2015). Adoption of e-government services: The role of service quality dimensions and demographic variables. *Transforming Government: People, Process and Policy*, 9(2), 207-222. <https://doi.org/10.1108/TG-10-2014-0046>
91. Shim, D. C., & Eom, T. H. (2008). E-government and anti-corruption: Empirical analysis of international data. *Intl Journal of Public Administration*, 31(3), 298-316. <https://doi.org/10.1080/01900690701590553>
92. Singh Kalsi, N., & Kiran, R. (2013). E-governance success factors: an analysis of e-governance initiatives of ten major states of India. *International Journal of Public Sector Management*, 26(4), 320-336. <https://doi.org/10.1108/IJPSM-08-2011-0101>
93. Singh, G., Pathak, R. D., Naz, R., & Belwal, R. (2010). E-governance for improved public sector service delivery in India, Ethiopia and Fiji. *International Journal of Public Sector Management*, 23(3), 254-275. <https://doi.org/10.1108/09513551011032473>

94. Singh, K. N., & Kiran, R. (2013). E-governance success factors: an analysis of e-governance initiatives of ten major states of India. *International Journal of Public Sector Management*, 26(4), 320-336. <https://doi.org/10.1108/IJPSM-08-2011-0101>
95. Statistics Mauritius. 2016. *Economic and Social Indicators*. Retrieved from: <https://bit.ly/2NTl3X6>.
96. Susanto, Tony Dwi.,(2013). *Individual Acceptance of E-government: A Literature Review*. Presented at the *Second International Conference on Informatics Engineering and Information Science (ICIEIS2013)*, November 12-14, Kuala Lumpur, Malaysia.
97. Taechaubol, K. (2017). Investor types and trading of the environment, social and governance stocks in the stock exchange of Thailand. *Journal of Administrative and Business Studies*, 3(1), 38-48. <https://doi.org/10.20474/jabs-3.1.5>
98. Taipale, S. (2013). The use of e-government services and the Internet: The role of socio-demographic, economic and geographical predictors. *Telecommunications Policy*, 37(4-5), 413-422. <https://doi.org/10.1016/j.telpol.2012.05.005>
99. Tolbert, C. J., & Mossberger, K. (2006). The effects of e-government on trust and confidence in government. *Public administration review*, 66(3), 354-369. <https://doi.org/10.1111/j.1540-6210.2006.00594.x>
100. Torres, L., Pina, V., & Acerete, B. (2006). E-Governance developments in european union cities: Reshaping Government's relationship with citizens. *Governance*, 19(2), 277-302. <https://doi.org/10.1111/j.1468-0491.2006.00315.x>
101. Transparency International., (2016). *Corruption Perception Index 2016*. Retrieved From: <https://bit.ly/2xNm6u>.
102. UNESCO. (2011). *E-governance*. Retrieved From: <http://www.portal.unesco.org>
103. Van der Meer, A., & Van Winden, W. (2003). E-governance in cities: a comparison of urban information and communication technology policies. *Regional Studies*, 37(4), 407-419. <https://doi.org/10.1080/0034340032000074433>
104. Van Dijk, J. A., Peters, O., & Ebbers, W. (2008). Explaining the acceptance and use of government Internet services: A multivariate analysis of 2006 survey data in the Netherlands. *Government Information Quarterly*, 25(3), 379-399. <https://doi.org/10.1016/j.giq.2007.09.006>
105. Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), 186-204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
106. Venkatesh, V., Morris, M. G., & Ackerman, P. L. (2000). A longitudinal field investigation of gender differences in individual technology adoption decision-making processes. *Organizational behavior and human decision processes*, 83(1), 33-60. <https://doi.org/10.1006/obhd.2000.2896>
107. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478. <https://doi.org/10.2307/30036540>
108. Verma, J. P. (2013). *Data analysis in management with SPSS software*. Springer Science & Business Media.
109. Wangpipatwong, S., Chutimaskul, W., & Papasratorn, B. (2008). Understanding Citizen's Continuance Intention to Use e-Government Website: a Composite View of Technology Acceptance Model and Computer Self-Efficacy. *Electronic Journal of e-Government*, 6(1). <https://doi.org/10.1007/978-81-322-0786-3>
110. Warkentin, M., Gefen, D., Pavlou, P. A., & Rose, G. M. (2002). Encouraging citizen adoption of e-government by building trust. *Electronic markets*, 12(3), 157-162. <https://doi.org/10.1080/101967802320245929>
111. Wasike, C. N. (2017). Financial regulation as moderating, influence of corporate governance, institutional quality, human capital and firm size on financial institutions performance in kenya. *Journal of Administrative and Business Studies*, 3(6), 292-304. <https://doi.org/10.20474/jabs-3.6.4>
112. Welch, E. W., Hinnant, C. C., & Moon, M. J. (2004). Linking citizen satisfaction with e-government and trust in government. *Journal of public administration research and theory*, 15(3), 371-391. <https://doi.org/10.1093/jopart/mui021>
113. Widilestariningtyas, O., & Karo, R. S. K. (2016). The influence of internal audit and internal control on fraud prevention in Bandung regency government. *Journal of Administrative and Business Studies*, 2(3), 143-150. <https://doi.org/10.20474/jabs-2.3.5>
114. Wind, J., & Rangaswamy, A. (2001). Customerization: The next revolution in mass customization. *Journal of interactive marketing*, 15(1), 13-32. [https://doi.org/10.1002/1520-6653\(200124\)15:1<13::AID-DIR1001>3.0.CO;2-#](https://doi.org/10.1002/1520-6653(200124)15:1<13::AID-DIR1001>3.0.CO;2-#)
115. Yapa, P. W. S., & Guah, M. W. (2012). Public-sector accounting and e-governance in developing countries: Case of Sri Lanka. *Journal of Asia-Pacific Business*, 13(1), 37-58. <https://doi.org/10.1080/10599231.2012.630609>

APPENDIX

Dimension	Items on questionnaire	Source / Adapted from
Perceived ease of use (PEOU)	Government website is user-friendly Easy to find information Easy to understand information Well-designed website	Hamid, Razak, Bakar and Abdullah (2016) Kalsi and Kiran (2013) Lin, Fofanah, and Liang (2011) Lee, Kozar, and Larsen (2003) Venkatesh and Davis (2000) Davis (1989) Roger (1983)
Perceived usefulness (PU)	Information is useful High quality e-services Online queries are answered Information is up to date Accuracy of information Money is saved A lot of time is saved Links to governmental departments	Lee and Levy (2014) Nabafu and Maiga (2012) Lin, Fofanah, and Liang (2011) Belwal & Al-Zoubi, 2008 Wangpipatwong, Chutimaskal, and Papasratorn (2008) Torres Pina and Acerete (2006) Davis (1989)
Collaboration	Provides support Greater co-ordination Effective provision of information Acts as a platform for democratic dialog Effective online communication Efficient online communication Adequacy of information to encourage citizen participation	Sharma (2015) Lee and Levy (2014) Al Athmay (2013) Alawneh, Al-Refai, and Batiha (2013) Belwal & Al-Zoubi, 2008 Wangpipatwong, Chutimaskal, and Papasratorn (2008) Tolbert and Mossberger (2006)
Trust	Trust in government websites Safe to disclose personal information Legislations against cybercrimes Confidentiality	Alasem (2015) Alomari (2014) Nabafu and Maiga (2012) Kumar et al., (2007) Carter & Belanger, (2008) Gilbert and Balestrini (2004) Warkentin et al. (2002)
Participation	Feeling of being consulted I can have my say in decisions Feedback from citizens are taken into account I help make decisions My opinions matter to the government	Al Athmay (2015) Haider, et al. (2014) Al Athmay (2013) Porter, 2008 Shim and Eom (2008) Tolbert and Mossberger (2006)
Transparency	Transparent decision making Reduced arbitrary decisions by politicians or government officials Increased accountability Link the corrupt to the wrongful act Reduced corruption	Al Athmay (2013) Kalsi and Kiran (2013) Mistry and Jalal (2012) Nabafu and Maiga (2012) Belwal & Al-Zoubi, 2008 Bhatnagar (2003)