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**ตัวแปรพยากรณ์ของการพัฒนารัฐบาลอิเล็กทรอนิกส์:
กรอบการวิจัยที่ถูุกำกั้บ**

**Predictors of e-Government Development:
A Moderated Research Framework**

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บทคัดย่อ

เทคโนโลยีสารสนเทศกำลังแทรกซ้อนเข้ามาในชีวิตมนุษย์อย่างรวดเร็ว ซึ่งกระตุ้นให้เกิดความจำเป็นที่ต้องเปลี่ยนแปลงรูปแบบของการให้บริการ รัฐบาลต่างๆ กำลังมุ่งสู่การจัดตั้งรัฐบาลอิเล็กทรอนิกส์ อย่างไรก็ตาม การละเมิดระบบรักษาความปลอดภัยเมื่อไม่นานมานี้ได้สร้างความกังวลต่อความปลอดภัยในข้อมูลและความเป็นส่วนตัว ดังนั้น การวิจัยนี้จึงมุ่งเน้นตรวจสอบปัจจัยต่างๆ ที่มีผลต่อการพัฒนารัฐบาลอิเล็กทรอนิกส์ นอกจากนี้ ความเชื่อมั่นในรัฐบาลถูกพิจารณาให้เป็นตัวแปรกำกับ ซึ่งข้อมูลที่ใช้ในการวิจัยนี้ถูกรวบรวมจากกลุ่มพนักงานธนาคารในประเทศไทย โดยโมเดลสมการโครงสร้างแบบวิธีกำลังสองน้อยที่สุดบางส่วน ถูกใช้ทดสอบสมมติฐานความสัมพันธ์ระหว่างตัวแปรต่างๆ ทั้งนี้ ผลการศึกษาพบว่ามีความสัมพันธ์เชิงบวกอย่างมีนัยยะสำคัญระหว่างปัจจัยทั้งหมดคือ ปัจจัยทางเศรษฐกิจ สังคม และการเมือง และการพัฒนารัฐบาลอิเล็กทรอนิกส์ ยิ่งไปกว่านั้น โครงสร้างพื้นฐานทางเทคโนโลยีสารสนเทศและการสื่อสารถูกพบว่ามีส่วนเกี่ยวข้องกับการพัฒนารัฐบาลอิเล็กทรอนิกส์ ด้วยเช่นกัน คณะผู้วิจัยเชื่อแน่ว่าสิ่งที่ค้นพบจากการศึกษานี้จะเป็นประโยชน์ต่อผู้กำหนดนโยบายและจะเป็นแนวทางต่อบริบทภาพรวม พร้อมกันนี้ได้เสนอแนวทางในอนาคตของการศึกษาเพิ่มเติมเรื่องนี้ไว้ให้ด้วย

คำสำคัญ: รัฐบาลอิเล็กทรอนิกส์; เทคโนโลยีสารสนเทศและการสื่อสาร; ความเชื่อมั่น

Abstract

Information technologies are rapidly penetrating in the human life which have also triggered the need to change the pattern of services are being offered. Governments are moving towards the establishment of e-Governments, however the recent security breaches have also created a concern regarding the data security and privacy. Therefore the present study is focused to examine the factors which do determine the e-Government development. Further the trust on government has been considered as a moderator. Data were collected from the employees which were working in Thailand Banks. PLS-SEM has been used to test the hypothesized relationships between variables. The results of the study provided a significant positive relationship between all factors namely; economic, social and political factors and e-Government development. Further ICT infrastructure has also been found to be associated with the e-Government development as well. It is believed that findings of the study will be beneficial for the policy makers and will serve as a guideline in broad context. Future directions of the study are also provided.

Keywords: e-Government; Information Communication Technology; Trust

Introduction

Recent developments in information and communication technologies have pushed the concept e-Governments and now the governments are rushing towards it as it comes with the combined benefit of both the public and government as well. The benefits of the e-Government has pushed the leaders to think regarding this and going digital in this regard. Nowadays, digital economy has emerged to be important and can't be ignored or overlook anymore as it has influenced the business, banking, education and retail etc. (World Bank, 2016). With the developments of latest tools to communicate the social interactions has also underwent a radical and imperative change which has altogether change the way things were being carried out (Alam, Erdiaw-Kwasie, Shahiduzzaman, & Ryan, 2018). In such scenarios digital economy has emerged to be a giant and countries which have adopted it are now regarded as developed countries. Beyond this the e-Government has proved to be a catalyst for the economic growth and development of the country as well (Carrillo et al., 2010). e-Government's importance and rapid growth can be judged from the previously reported statistics according to which approximately 22.5% of global GDP is attributed to the digital economy in terms of skills, capital, goods or services (Knickrehm, Berthon, & Daugherty, 2016). From these statistics it is obvious that one third of the global economy has already become digital as it has become imperative to survive in the current economic environment. Similar trends

have been observed in Thailand as well. The following figure 1 is showing the rank of Thailand among the countries with digital governments:

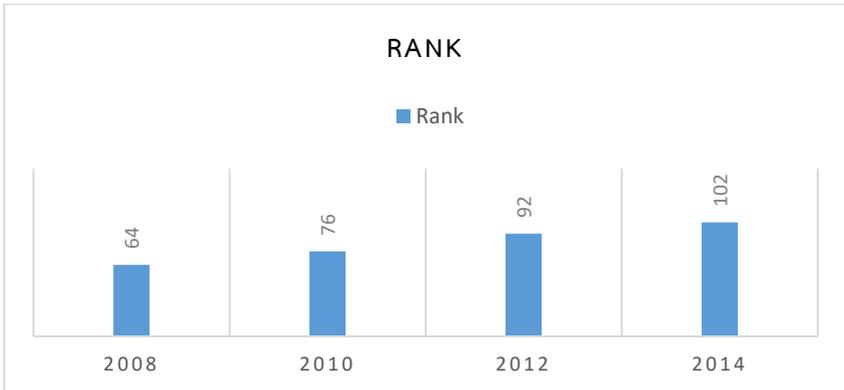


Figure 1: Rank of Thailand among the countries with digital governments

Source: e-Government Development Index (2014)

Rapid pace of ICTs and digital economies is observed globally which has created a push and governments are being pushed to go for the digitization and taking initiatives to improve their already installed systems. e-Government can be defined as “a process through which the use of ICTs can advance business development and service delivery by government departments and other related entities” (World Bank, 2012). Furthermore the e-Government systems can improve the overall performance of the local bodies and government institutions. In it also offers with certain advantages such as system becomes online which ensures the

transparency in every matter. Thus it lowers the corruption at officials end. It allows the public to do the things or avail the government services at ease. The trust of public tends to increase which then increases the revenues. It is very much beneficial for the governments. However its implementation is not deep routed in specially emerging economies even though they have invested much amount of time and resources in it. Therefore the focus of the study will be factors which do facilitate the e-Government.

Previously it has been argued that the topic of e-Government is being researched extensively. There is much amount of literature available on the e-Government (Andersen, Medaglia, Vatrapu, Henriksen, & Gauld, 2011). Previously conducted literature reviews and qualitative analysis have revealed that the majority of the models regarding the e-Government don't have a sound theoretical background Heeks and Bailur (2007). Thus, it affirms that there is need to conduct research in this domain to overcome the previously highlighted loopholes in the literature. In addition to this Yildiz (2007) conducted a qualitative study and concluded that there is much need for the studies to be conducted in the domain of e-Government as there is still room to explore various perspectives. Regarding the empirical evidence availability of e-Government it has been argued it is satisfying that literature and empirical evidence is available but the available evidence is too much scattered (Shareef, Kumar, Kumar, & Dwivedi, 2011). Going on further they also argued that majority of the models and literature on the e-Government is kind of conceptual which

does not provide a broad image or understanding about it. Most importantly, they concluded that undoubtedly there is greater absence of the empirical evidence in this domain.

Having considered the abovementioned theoretical gaps the current study is focused in the Asian country. Previously it has been argued that Asian economies are composed of various countries which holds vast range of heterogeneity in all of its aspects. Even though it can be found in the way of governance as well. Thus the study is focused on the role of the various factors in development of the e-Government. In addition the study is also focused on the moderating role of the trust in government. The study will address the following research questions:

- 1) How do ICT Infrastructure influence the e-Government development?
- 2) How do economic factors influence the e-Government development?
- 3) What is the role of social factors in e-Government development?
- 4) Do political factors matters in development of e-Government?
- 5) Do trust in government act as a mediator between independent variables (ICT infrastructure, economic, social and political factors) and dependent variable (e-Government development)?

Considering the research questions the study will strive to achieve the following research objective which are in line with the purpose of the present research study:

- 1) To what extent ICT Infrastructure influence the e-Government development.
- 2) To examine the role of economic factors towards the e-Government development.
- 3) To investigate the role of social factors in e-Government development.
- 4) To what extent political factors matters in development of e-Government.
- 5) To what extent trust in government acts as a mediator between independent variables (ICT infrastructure, economic, social and political factors) and dependent variable (e-Government development).

The study is significant in various aspects. From theoretical perspectives it offers new insights into e-Government settings and provides empirical evidence on what are the crucial factors which help to develop digital economy which then serves as a platform to form the e-Government. When it is concerned with the practical significance, the study will serve as a guideline to the policymakers to consider the factors which can hinder or boost the government transformation to e-Government. It will also enlighten the urgency of the factors which must

be considered at early stage while going for digital economy to serve the public with ease and increase the resources efficiency.

Literature Review

e-Government

e-Government can be conceptualized as “governments' use of Information and Communication Technologies (ICTs) combined with organizational change to improve the structures and operations of government” cited in (Kurfali, Arifoğlu, Tokdemir, & Paçin, 2017). Generally speaking it is the provision of the services to the public in digitized way. All of the government services are made available at single click to the public. It is the most refined as easy way to access the government services in any context. All of the services are then governed by the government remotely. The primary aim of the e-Government is just to ease the way things are done (de Oliveira Carneiro et al., 2019). More concisely, it do help the government to serve the internal and external communication with the public and departments regarding any issue or matter. Further it also makes it faster to communicate and process the information exchange between the stakeholders and ease out the way to increase the collaboration between the agencies as well (Liu & Carter, 2018).

e-Government is benefiting the governments. Regarding this previous study has stated that it do improve the administration in various ways such as it increases the professionalism among government officials

as everything is linked up so they have to do it with utmost care and attention so there may not be an error. In addition to this it also boosts up the ethical climate among officials as there are several checks which do lessen the chance of doing any unethical action. Further it also improves the operational efficiency of the government officials and departments as well. When all the working is being done the government transparently, smoothly and in effective way, it do influence the public trust on the government which is also the factor for its success. When people are getting what they desire, their right and government is successfully completing its responsibilities people tend to be happy and consider it as their welfare. Going on further when the people get something extra and government is also doing extra for people and also easing their way of doing things they tend to be more satisfied and ultimately well-being improves (Twizeyimana & Andersson, 2019).

Factors Influencing e-Government Development

There are range of factors which do influence the development of e-Government. These factors can be broadly categorized in internal and external factors, political, environmental, and economic and customer needs as well. The in-depth analysis of the internal factors reveals that they do deal with the government actions which do assist value addition in services which are available for general public regardless of the context or type of service. Generally speaking the role of the paperless currency is very broad in shaping a tendency to go for e-Government (Nyakwende

& Al Mazari, 2012). Following are the details of the factors considered in the study; ICT infrastructure, economic, social and political factors.

ICT Infrastructure

Now very household is equipped with computers, mobiles and other latest communication technologies. Further the internet rapid penetration has also triggered the need for the e-Government. Most importantly, the increased and rapid penetration of the smart phones and portable computers acted as essential driver in the developing e-Government (Nyakwende & Al Mazari, 2012). Thus, it is stated that the information communication technologies also serve as a driver for the development of e-Government. Furthermore, Kurfali et al. (2017) argued that with the time information and communication technologies have developed which does not only changed the way of communication but also scaled up the modernization. Important, it has also changed the way the services are being offered. They have also boosted the productivity of the government services and resources are utilized well. However, the point of concern is the availability of ICTs, if they are not sufficiently available they will do influence the development very badly and their availability significantly influence the development.

Economic Factors

Economy of a country reveals the status about the country that it can do something or not. Previously it has been supported by a study which argued that the economy of a country do affect the development of e-Government (Sorn-In, Tuamsuk, & Chaopanon, 2015). If a country is

having a problems such as budget deficit, external and internal loans, unleashed inflation then it can't for big developments. Previously a study has argued that the budget support is the key factor which do influence the development of e-Government as the budget unavailability will not let the government to buy equipment anymore and lead towards the delay as well. In addition to this when the country is having huge population with low incomes its efforts for the e-Government will also go in dust as people are not able to afford that one as the internet connectivity is also expensive (Almarabeh & AbuAli, 2010).

Social Factors

Social factors also act as a significant drive to develop e-Government. In this regard it has been argued that these factors are composed of acknowledgement of the e-Government, appropriate trainings and education provision to the citizens regarding its usage. Furthermore, the social factors are also inclusive of the public attitude towards the usage of e-Government in their routine life. In a country there are different religions and different ethnicities which do strongly influence the development of the e-Government. In this regard it is good to acknowledge the beliefs of the public towards the e-Government as well (Chang, Hajiyev, & Su, 2017; Sorn-In et al., 2015).

In addition to this previously studies have reported that the social factors do influence the development of e-Government such as the national culture is significant predictor for its acceptance as it do influence the behaviors. A study was conducted in Turkey and USA. The study

results revealed that there was a gender gap regarding the adoption of the e-Government. The study conclude that the culture of the countries is different due to which it happened (Patel & Jacobson, 2008). In addition to this another study was conducted which focused on the cultural dimensions as a predictor for the e-Government acceptance. The study findings concluded that people with high power distance were more e-Government oriented as compared to other people with less power distance. Going on further the people with lower uncertainty avoidance found to be less dependent. Besides conducted an analysis on 95 countries and reported that high power distance of people negatively influence the e-Government readiness (Kumar, Mukerji, Butt, & Persaud, 2007). At this point it is worthy to mention the other studies as well which has reported that the social pressure is also a potential factor for the development of the e-Government (Janita & Miranda, 2018; Mensah & Mi, 2019). Importantly the theory of reasoned actions holds that the human behavior is influenced by his or her attitude and beliefs as well 17. Conclusively the individual attitude, social pressure and adoption all are the social factor which do impact the development of e-Government.

Political Factors

The political climate is formed by the government policies regarding the move towards the establishment of e-Government. How the data will be handled, who will have access to it, how much it is secure and how it will be used and in what purposes are the questions which do generate the political climate regarding the e-Government. It can

potentially hinder or ease the adoption of the e-Government development (Nyakwende & Al Mazari, 2012). Previously various political considerations have been identified such as the vision of government in the development of digital government also plays a significant role. In addition to this the political factors shapes the strategic orientation which also provides assistance to the e-Government. Laws and regulations are the important aspect of the political factors overall which serve the basis for the legalization of move towards the e-Government development. All the political stakeholders can hinder the way to e-Government. Introduction of new legislation is not possible without having stable political environment (Weerakkody, El-Haddadeh, & Al-Shafi, 2011). From the above mentioned arguments it has become very much clear that political factors are also a critical factor for the e-Government development.

Trust in Government

Generally speaking trust is the basic factor which allow us to do a things or meet with a specific person or do anything in life. Without having a trust a human being resist to do something. Trustworthiness is the essential factor for a certain thing to be around a person. While the trust in government is something different but lies in the broad domain of trust. Trust in government has been proposed as “it allows individuals to willingly use e-Government services and behave in a socially responsible manner for the fulfillment of trust after taking government characteristics into consideration” (Al-Zoubi, Thi, & Lim, 2011). Trust in government has

also been defined as “one’s institution based trust regarding the integrity and ability of the agency providing the service” (Bélanger & Carter, 2008). Specific to the subject matter trust has been defined as “the belief of e-Government users regarding internet's reliability in providing accurate information and secure transactions” (Kurfali et al., 2017).

From the definitions it is obvious that trust in government is the confidence of an individual in the steps and actions taken for the well-being of them. Therefore, it can be summed up that the trust in government will boost up the development of e-Government. Previously various studies has confirmed it as a positive booster (Akkaya, Obermeier, Wolf, & Krcmar, 2011; Khasawneh, Rabayah, & Abu-Shanab, 2013). Therefore, the present study considers it as a moderator between relationships of ICT infrastructure, economic, social and political factors and e-Government development.

Research Framework

The purpose of current study is to examine the predictors for the e-Government development. In this regard ICT infrastructure, economic, social and political factors have been considered as a potential factors that predict the development of e-Government. Furthermore the study has also considered the trust in government as a potential moderator. Based on the research questions and objectives mentioned earlier in the study following are the hypothesis:

H1: ICT infrastructure and e-Government development are positively and significantly associated.

H1a: Trust in government significantly moderates relationship between ICT infrastructure and e-Government development.

H2: There is significant association between economic factors and e-Government development.

H2a: Trust in government significantly moderates relationship between economic factors and e-Government development.

H3: There is significant association between social factors and e-Government development.

H3a: Trust in government significantly moderates relationship between social factors and e-Government development.

H4: There is significant association between political factors and e-Government development.

H4a: Trust in government significantly moderates relationship between political factors and e-Government development.

Following figure 2 is showing the research framework for the present study:

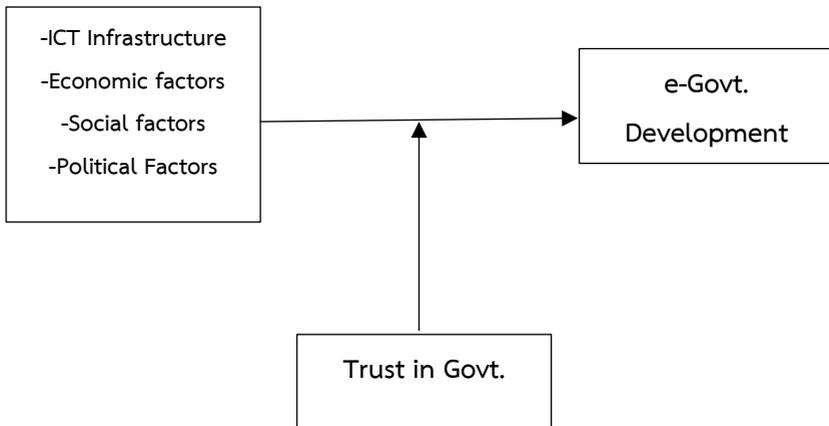


Figure 2: Conceptual framework

Research Methodology

The study emphasize to explore the predictors for e-Government development. In this regard ICT infrastructure, economic, social and political factors have been considered as a potential factors that predict the development of e-Government. Furthermore the study has also considered the trust in government as a potential moderator.

Following the positivism philosophy the study is quantitative and descriptive in nature. Further the study is cross sectional as data were collected only one time from the respondents. Population is the overall target audience of the study from which data is to be collected or whom problem is focused in a study. As the study is focused on the e-Government so the most suitable population is the individuals who are making such policies or using them. In this regard the target population of

the present study is the employees working in banks only as they daily deal with the digital economy. Purposive sampling has been used for data collection.

It is not possible to collect data from all the population so the sample size is derived. For sample size thumb rule has been used according to which the number of questions in a questionnaire are to be multiplied by 10 to derive the sample size. The total number of questions were 22 so the total sample size 220 respondents. Bearing in mind the fact of unresponsiveness and missing values a total of 300 questionnaires were distributed out of which 210 questionnaires were valid and used for data analysis.

For data collection a letter was sent to the bank managers to obtain an appointment. In the meeting with bank managers were informed about why the study is being conducted and permission for data collection was obtained. After the permission the questionnaires were distributed to the employees and after one week completed responses were collected. Data collection one month. Questionnaire was used to collect data which consisted upon two section out which one has to deal with the demography and other one has to deal with the questions related to the variables namely; ICT infrastructure, economic, social and political factors. All the measures were adopted from the previous studies the details of which are as follows: Trust on government was measured by three items scale (Carter & Bélanger, 2005). Measures for ICT infrastructure, economic, social and political factors were adapted from Economist Intelligence Unit

(2010) which were consisted of four items each. Whereas seven items measure was also adapted to measure e-Government development (United Nations, 2014). For data analysis Smart-PLS has been used as the purpose of the study is to test the hypothesis only. Measurement model assessment used to assess model fit and structural equation modeling used to test the hypothesis. The next section contains the detailed results of the study.

Research Findings

Measurement model assessment is done by doing confirmatory factor analysis. CFA provides the reliability and validity of the measuring instrument and items. CFA confirms the convergent and discriminant validity of the scale. Convergent validity is composed of three things factor loadings, composite reliability and average variance extract.

First of all it is necessary to satisfy the factor loadings parameter. The value for each factor loading in a scale must be greater than 0.5 and optimally it should be greater than 0.7 (Hair, Black, Babin, & Anderson, 2009). As per the findings reported in table 1 factor loadings for each of the item for the variables namely; ICT infrastructure, economic, social and political factors, e-Government development and trust on government are greater than 0.5. Thus, it confirms that there is no problem with any of the item in the instrument.

Table 1 is also showing the values for the composite reliability the value of which should be greater than 0.8 in order to satisfy this

criterion. As per the findings reported in table 1 the value of composite reliability for the variables namely; ICT infrastructure, economic, social and political factors, e-Government development and trust on government are greater than 0.8. Thus, it confirms that there is no problem with composite reliability of the instrument. In addition table1 is also showing the values for the average variance extract the value of which should be greater than 0.5 in order to satisfy this criterion. As per the findings reported in table 1 the value of AVE for the variables namely; ICT infrastructure, economic, social and political factors, e-Government development and trust on government are greater than 0.5. Thus, it confirms that there is no problem with AVE. Thus all the criteria are satisfied which allows to proceed for further analysis.

Discriminant Validity

Discriminant validity is accomplished when the square root of average variance extract is greater than the inter-factor correlation of other constructs of the same diagonal (Hair & Babin, 2006). It means that the construct's components are not related to other constructs. Following tables are showing the values for discriminant validity.

Table 1: Confirmatory Factor Analysis

Constructs	Items	Loadings	Alpha		AVE
			a	CR	
Environmental Factors	EF 1	0.81	0.84	0.89	0.688
	EF 2	0.85	9	8	
	EF 3	0.836			
	EF 4	0.821			
e-Government Development	EGD		0.77		0.554
	1	0.781	6	0.85	
	EGD				
	2	0.822			
	EGD				
	3	0.843			
Information and Communication Technologies Infrastructure	ICTI		0.84	0.89	0.679
	1	0.729	1	4	
	ICTI				
	2	0.839			
	ICTI				
	3	0.835			
	ICTI				
	4	0.887			

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			0.87	0.92		
Political Factors	PF 1	0.925	8	4	0.803	
	PF 2	0.849				
	PF 3	0.912				
			0.80	0.87		
Social Factors	SF 1	0.865	8	3	0.634	
	SF 2	0.781				
	SF 3	0.717				
	SF 4	0.815				
				0.92		
Trust in Government	TIG 1	0.882	0.89	5	0.755	
	TIG 2	0.778				
	TIG 3	0.916				
	TIG 4	0.893				

As per the Fornell and Larcker Criterion the value of a variable AVE square root must be greater than the correlation with other variables. The findings reported in the table are fully satisfying the criterion.

Table 2: Fornell and Larcker Criterion

	EF	EGD	ICTI	PF	SF	TIG
EF	0.829					
EGD	0.621	0.744				
ICTI	0.554	0.543	0.824			
PF	0.287	0.307	0.301	0.896		
SF	0.573	0.566	0.441	0.179	0.796	
TIG	0.562	0.733	0.478	0.275	0.580	0.869

Table 3: Heterotrait-Monotrait Correlation Ration

	EF	EGD	ICTI	PF	SF	TIG
EF						
EGD	0.738					
ICTI	0.657	0.652				
PF	0.331	0.398	0.349			
SF	0.686	0.673	0.538	0.208		
TIG	0.648	0.857	0.548	0.313	0.677	

According to HTMT the values of correlation should be less than 0.85. However, Henseler, Ringle, and Sarstedt (2015), stated the threshold of 0.90 can be used for HTMT. Therefore HTMT₉₀ is followed in the study and findings are fully in accordance with the threshold of HTMT. Hence, there is no problem with the discriminant validity. Following figure 3 is showing the outcome of CFA:

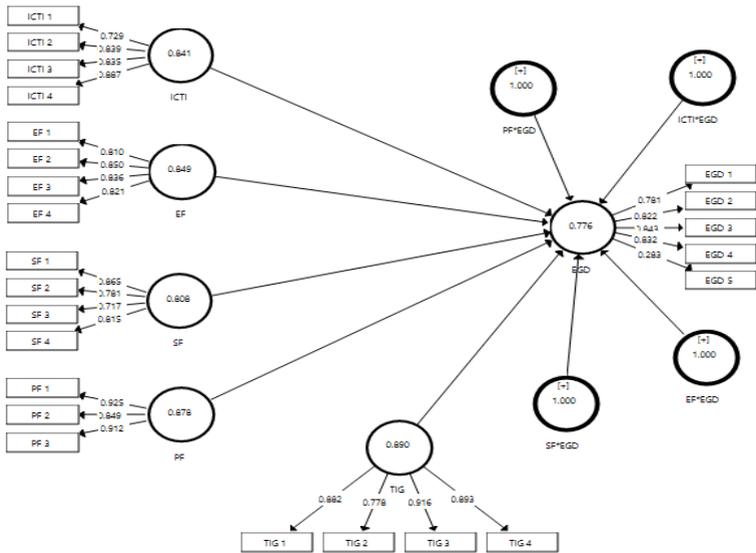


Figure 3: Outcome of CFA

Table 4: Structural Equation Modeling

Relationships	Beta	SD	t value	p value
EF -> EGD	0.179	0.034	5.276	p<0.05
EF*EGD -> EGD	0.016	0.035	0.473	p>0.05
ICTI -> EGD	0.144	0.031	4.578	p<0.05
ICTI*EGD -> EGD	-0.028	0.024	1.128	p>0.05
PF -> EGD	0.061	0.023	2.647	p<0.05
PF*EGD -> EGD	-0.014	0.02	0.719	p>0.05
SF -> EGD	0.111	0.033	3.352	p<0.05
SF*EGD -> EGD	-0.045	0.033	1.385	p>0.05
TIG -> EGD	0.46	0.032	14.498	p<0.05

The above mentioned table is showing the results for the structural equation modeling. As per the findings reported in the table impact of environmental, social and political factors along with the information communication technologies on e-Government development has reported to be significant which is valued at 0.179, 0.111, 0.061, and 0.144 respectively. Whereas all the moderation relationships between the variables have not been supported by the results of the study. Following figure 4 is showing the outcome of structural equation modeling:

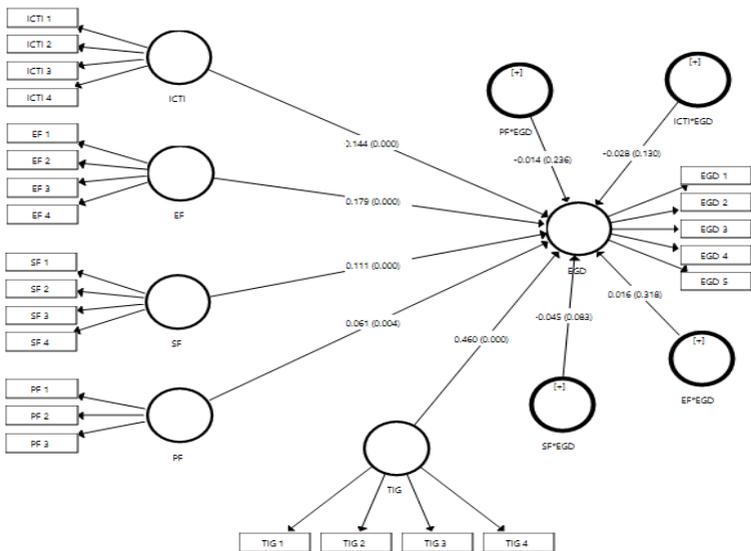


Figure 4: Structural equation modeling

Discussion

The study investigated the factors which assist in developing the e-Government. By using PLS-SEM the study has provided regarding the under study variables.

As per the findings reported in the above section social factors tend to be associated with e-Government which can be interpreted in various ways such as people are concerned regarding the opinion of the others related to the e-Government which do significantly influence their own perception to use it. Similarly while going for the e-Government it also holds that people beliefs in this regard will also hinder or facilitate. The results also showed a relationship between economic factors and e-Government development. It can be said that when the public is not able to afford the internet connectivity or government itself does not have budgets to build infrastructure then the financial crisis would not allow to do this.

In addition the results also showed the positive association between political factors and e-Government development. Suppose in a democracy system where government is not in a position to decide at its own and there are no more good ties between the government and opposition it will not facilitate the e-Government development. Similarly the law and order situation within the country if stable and legislation if possible in a stable environment than these factors will support the e-Government development. A country already advanced in technology will get better results while going for the e-Government development as it

already do have the basic things available which will facilitate the e-Government development. Finally the results also showed that the trust in government will also serve as a facilitator. People having trust on government will not obstruct the way of e-Government development.

Conclusion and Future Directions

Findings of the study has supported the hypothesis developed therefore, it is concluded that the study has accomplished all of its objectives and answered the research questions. It is also conclude that the underlying highlighted factors are the major cause for the e-Government development. Policymakers can consider the findings of the study while deciding which factor to be focused upon as the study has also pointed out the important factors as well.

Although the study has accomplished all of its objectives and answered the research questions there are few limitations as well. Respondents were the bank employees without segregating their designations and nature of bank. The future studies may consider the specific level of employees of banks. Future studies may also consider the private or public banks only or they may conduct a comparative study to further provide more in-depth insights regarding the e-Government development. In future studies may consider some other variables such as government readiness as a moderator to have a different insights into study. Finally, the study may be conducted from the lens of conservation of resources theory to obtain more valuable insights.

References

- Akkaya, C., Obermeier, M., Wolf, P., & Krcmar, H. (2011). **Components of trust influencing e-government adoption in Germany**. (Paper presented at the International Conference on Electronic Government).
- Al-Zoubi, M., Thi, L., & Lim, H. (2011). E-Government adoption among businesses in Jordan. **Academic Research International**, 1(1), 141-156.
- Alam, K., Erdiaw-Kwasie, M., Shahiduzzaman, M., & Ryan, B. (2018). Assessing regional digital competence: digital futures and strategic planning implications. **Journal of rural studies**, 60, 60-69.
- Almarabeh, T., & AbuAli, A. (2010). A general framework for e-Government: definition maturity challenges, opportunities, and success. **European Journal of Scientific Research**, 39(1), 29-42.
- Andersen, K., Medaglia, R., Vatrapu, R., Henriksen, H., & Gauld, R. (2011). The forgotten promise of e-Government maturity: Assessing responsiveness in the digital public sector. **Government Information Quarterly**, 28(4), 439-445.
- Bélanger, F., & Carter, L. (2008). Trust and risk in e-Government adoption. **The Journal of Strategic Information Systems**, 17(2), 165-176.
- Carrillo, F., Metaxiotis, K., Yigitcanlar, T., Mohamed, M., Murray, A., & Mohamed, M. (2010). The role of information and communication technology (ICT) in mobilization of sustainable development

- knowledge: a quantitative evaluation. **Journal of knowledge management**, 14(5), 744-758.
- Carter, L., & Bélanger, F. (2005). The utilization of e-government services: citizen trust, innovation and acceptance factors. **Information systems journal**, 15(1), 5-25.
- Chang, C.-T., Hajiyev, J., & Su, C.-R. (2017). Examining the students' behavioral intention to use e-learning in Azerbaijan? The general extended technology acceptance model for e-learning approach. **Computers & Education**, 111, 128-143.
- de Oliveira Carneiro, D., dos Reis, M., Cireno, M., Lima, B., dos Santos, A., de Lima Ayres, J., & Junior, D. (2019). Parliamentary Amendment Mobile Application: A Qualitative Approach About E-Government. (Paper presented at the World Conference on Qualitative Research).
- E-Government Development Index. (2014). **E-Government Development Index by country: 2008-2014**. Retrieved from digital.gov.ru/en/activity/statistic/rating/index-razvitiya-elektronnogo-pravitelstva/#tabs[Compare: Place.
- Economist Intelligence Unit. (2010). **Digital economy rankings 2010**. Retrieved from www935.ibm.com/services/us/gbs/bus/html/ibv-digitaleconomy2010.html
- Hair, B., & Babin, A. (2006). **Multivariate data analysis**. 6th ed. New Jersey: Pearson Prentice Hall.

- Hair, J., Black, W., Babin, B., & Anderson, R. (2009). **Multivariate data analysis**. Vol. 6. 7th ed. New Jersey: Pearson Prentice Hall.
- Heeks, R., & Bailur, S. (2007). Analyzing e-Government research: Perspectives, philosophies, theories, methods, and practice. **Government Information Quarterly**, 24(2), 243-265.
- Henseler, J., Ringle, C., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. **Journal of the academy of marketing science**, 43(1), 115-135.
- Janita, M., & Miranda, F. (2018). Quality in e-Government services: A proposal of dimensions from the perspective of public sector employees. **Telematics and Informatics**, 35(2), 457-469.
- Khasawneh, R., Rabayah, W., & Abu-Shanab, E. (2013). **E-Government acceptance factors: trust and risk**. (Paper presented at the the 6th international conference on information technology).
- Knickrehm, M., Berthon, B., & Daugherty, P. (2016). **Digital disruption: The growth multiplier**. **Accenture Strategy**. Retrieved from www.accenture.com/us-en/insight-digital-disruption-growth-multiplier
- 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), 63-76.

- Kurfali, M., Arifoğlu, A., Tokdemir, G., & Paçın, Y. (2017). Adoption of e-Government services in Turkey. **Computers in Human Behavior**, 66, 168-178.
- Liu, D., & Carter, L. (2018). **Impact of citizens' privacy concerns on e-Government adoption**. (Paper presented at the Proceedings of the 19th Annual International Conference on Digital Government Research: Governance in the Data Age).
- Mensah, I., & Mi, J. (2019). Predictors of the Readiness to Use E-Government Services From Citizens' Perspective. **International Journal of Technology Diffusion**, 10(1), 39-59.
- Nyarkwende, E., & Al Mazari, A. (2012). **Factors affecting the development of e-Government in Saudi Arabia**. (Paper presented at the International Conference on Electronic Government and the Information Systems Perspective).
- Patel, H., & Jacobson, D. (2008). **Factors Influencing Citizen Adoption of E-Government: A Review and Critical Assessment**. (Paper presented at the ECIS).
- Shareef, M., Kumar, V., Kumar, U., & Dwivedi, Y. (2011). e-Government Adoption Model (GAM): Differing service maturity levels. **Government Information Quarterly**, 28(1), 17-35.
- Sorn-In, K., Tuamsuk, K., & Chaopanon, W. (2015). Factors affecting the development of e-Government using a citizen-centric approach. **Journal of Science & Technology Policy Management**, 6(3), 206-222.

- Twizeyimana, J., & Andersson, A. (2019). The public value of E-Government—A literature review. **Government Information Quarterly**, 36, 167-178.
- United Nations. (2014). **United Nations E-Government Survey 2014: E-Government for the future we want**. New York: United Nations Department of economic and social affairs.
- Weerakkody, V., El-Haddadeh, R., & Al-Shafi, S. (2011). Exploring the complexities of e-Government implementation and diffusion in a developing country: Some lessons from the State of Qatar. **Journal of Enterprise Information Management**, 24(2), 172-196.
- World Bank. (2012). **Information and communications for development 2012: Maximizing mobile**: Washington, D.C.: World Bank.
- World Bank. (2016). **Digital Dividends: World Development Report 2016**. Washington, DC.: The World Bank.
- Yildiz, M. (2007). E-Government research: Reviewing the literature, limitations, and ways forward. **Government Information Quarterly**, 24(3), 646-665.