

## A Conceptual Framework for Citizens' Adoption of E-Government

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### *Abstract*

*The purpose of this study was to investigate underlying constructs that played roles in citizens' decision to use e-government services. In this study, we discussed each construct and supporting literature that contributes to developing a conceptual model. This study developed a conceptual model that explains the relationship between these constructs and the behavioral intention to use e-government services. The developed conceptual model integrates constructs from the Technology Acceptance Model (perceived ease of use and perceived usefulness), the Unified Theory of Acceptance and Use of Technology model (social influence), and trustworthiness (trust of government and trust of the Internet), with introducing the construct of perceived corruption. The proposition of the conceptual model provided a foundation to further empirical testing for the constructs that influence the adoption of e-government services.*

**Key Words:** *E-government Adoption, Social Influence, Corruption, Citizen Trust, TAM, UTAUT.*

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### **Introduction**

Continued globalization has driven many countries to move towards increased use of new technologies. The rapid improvement of Information and Communication Technology (ICT) led to transformations in the method of delivering businesses and governments' services to citizens. This improvement reveals electronic services (e-services) as a great opportunity to provide better services, and better communication channels adapted to people's needs. People have gained more knowledge and experience through utilizing the Internet and using e-services from the private sector. This increases citizens' expectations for higher standards and better services from their related governments (Silcock, 2001). For citizens, electronic government (e-government) means that the interaction with public administration becomes much easier and at lower cost. Therefore, governments adopted the concept of e-government to emulate the private sector by offering more efficient public services to citizens and businesses. E-government represents a fundamental change in the whole structure of the public sector by utilizing ICT, which in turn enhances the transparency, the efficiency and the effectiveness of government services' delivery, and improves communication and access to information for citizens (Fang, 2002; Gonzalez et al., 2007; Bannister and Connolly, 2015).

In the last decade, many governments wanted to capitalize on the tempting potential of revolutionizing the relationship between governments and citizens through emerging web-based technology, therefore e-government has been identified as one of the top priorities for government across the world (Chen et al., 2006). Although many might think that the technology itself would be a major hindrance to the diffusion of

e-government, in reality, the user's acceptance of e-government is the biggest hurdle for the adoption of e-government. The success of e-government diffusion largely depends on the number of citizens using the service (Hwang et al., 2004; Kurfali et al., 2017). From the citizens' perception, the availability of IT infrastructures is not the only reason for accepting e-government services, but constructs, such as organizational and social readiness, play a role in their decision (Weerakkody et al., 2007; Weerakkody et al., 2008; Bannister and Connolly, 2011). Therefore, it is very important for governments to understand the constructs influencing their citizens' decision to adopt e-government. The success of e-government services not only depends on government support but also depends on the citizens' willingness to accept and adopt these services (Carter and Belanger, 2004). The successful adoption of e-government by citizens requires an in-depth multidimensional understanding and analysis of e-government issues from the citizens' perspective in order to face the lack of success from a managerial outlook. Therefore, it is important that the government becomes aware of the challenges that are likely to be confronted in the process of e-government diffusion amongst citizens. It is important to know the direct and indirect constructs that will motivate citizens not only to use e-government services but to continue to use them for long-term. Due to the lack of research investigating the multi-dimensional constructs that influences citizens' intention to adopt e-government services, we shed light in this study on these key constructs from the viewpoint of the citizens. Thus, this study aims to investigate underlying constructs that influence citizens' decision to use e-government services.

In literature, there are several models and theories that have been proposed to explain these constructs and their role in influencing the acceptance of e-government by citizens. The most common models that have been used by many researchers are Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), the Diffusion of Innovation Theory (DOI), and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Sahari et al.; 2012, Al-Hujran et al., 2011; Hung et al., 2006). Furthermore, some studies have modified these theories or introduced a new construct in attempt to provide a comprehensive explanation of e-government acceptance (Carter and Belanger, 2005; Kurfali et al., 2017).

In this study, we propose a new conceptual model that integrates some constructs from previous theoretical models while introducing new constructs that have not been studied in previous research. Each of these constructs and supporting literature will be examined before presenting the full model. The proposition of this model will constitute the existing research content in the field of e-government and benefit the researchers in further studies. This conceptual model will be used as a basis for a future empirical study.

The rest of this paper is organized as follows. The next section provides a brief introduction of the concept of e-government, followed by a review of the theoretical frameworks. Then, a literature review of the constructs that influence the adoption of e-government is provided and related hypotheses are presented. Finally, the description of the conceptual model is presented, followed by the conclusion and future research.

## E-government

E-government, which is also known as the online or digital government, is a phenomenon that has been defined from different perspectives based on the priorities in the government strategies. Despite the increase of the recognition of ICT's role in developing e-government, there is no standard definition of the term *e-government* (Yildiz, 2007). The concept of e-government is classified for both broad and narrow perspectives, based on technology, process, benefits, citizen point of view, single point access (i.e. the Internet), and phenomenon (i.e. social, economic and political phenomena) (Al-Shafi, 2009). For example, Srivastava and Teo (2007) focus on the technology dimension in defining e-government. They defined e-government as the ICT usage and the ability of the Internet to enhance the accessibility and the delivery of government services and operations for the benefit of citizens, businesses, employees and other stakeholders.

In addition, a number of e-government definitions consider the citizens point of view as one of the basic components that constructs the meaning of e-government. For instance, Waller et al. (2001) define e-government as "a government that makes full use of the potential of technology to help put its citizens at the center of everything it does, and which makes its citizens its purpose". This definition puts the citizens and their needs at the center of government's focus. Burn and Robins (2003) refer to e-government as the government's efforts to provide citizens with the information and seamless service delivery they need by using a range of technological solutions.

As this study focuses on the citizens' adoption of e-government services, we will narrow the focus to citizens rather than businesses or government agencies. In this study, e-government is defined as a method through which services are transferred via ICT, particularly the Internet, to engage with citizens, and to improve government efficiency, effectiveness, transparency, and accountability to benefit citizens.

## Theoretical Background

Previous researchers developed theoretical frameworks in order to form the constructs that influence the behavioral intention of an individual. In the context of technology adoption, some theories such as the DOI, UTAUT, and TAM were developed to explain the human behavior toward technology. These theories have been used widely in different areas in social science to explain behavioral aspects of technology adoption. To provide background information on our research model and hypotheses, the theories of acceptance of technology are discussed. This study has utilized different theories to identify the variables affecting e-government acceptance by citizens.

### Diffusion of Innovation Theory (DOI)

The Diffusion of Innovation Theory clarifies the process of adopting innovations and explaining the underlying reason behind the variety of adoption rates of these innovations (Rogers, 1983). This theory has been adopted widely in IT studies to explain the acceptance of IT innovations. According to Rogers (1983), innovation is "an idea perceived as new by an individual" while diffusion is described as "a process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers (1983). Rogers' model focuses on the process of diffusion of innovation among the category of individuals. Individuals' decision-making process to adopt an innovation is influenced by five main characteristics : relative advantage (the degree to which the innovation, product or services, is perceived as better or more beneficial than alternative ideas), compatibility (the degree of the consistency of an innovation to the existing values, needs, and experiences of the potential adopter), complexity (the level to which an innovation is perceived as acceptable, understandable, and easy to use for the adopter), trialability (the level which an innovation can be tested by an adopter before fully adopting the innovation), and observability (the level of the visibility of the results of an innovation to others in the social system). This theory has been used widely in e-government research to explain the challenges or the constructs influencing the e-government diffusion process (Zhang et al., 2014).

### Technology Acceptance Model (TAM)

The Technology Acceptance Model identifies the constructs influencing individuals' behavioral intention or decision to adopt a technology (Davis, 1985). TAM has been designed by Davis (1985) to be applied to an organizational setting. It is also applied to users' acceptance and usage of computers in the field of Information Systems (IS) (Davis et al., 1989). According to TAM, a technology acceptance behavior is influenced by two main constructs; perceived usefulness (the level to which an individual believes that using a particular system will contribute to improve his or her job performance) and perceived ease of use (the level to which an individual believes that using a particular system will be free of effort) (Davis et al., 1989). These two constructs ultimately determine an individual's attitude toward adopting a technology

(Greenfield and Rohde, 2009). These two constructs complement each other. The way perceived ease of use affects perceived usefulness is that the easier the system is to use the more useful it would be (Venkatesh and Davis, 2000).

### **The Unified Theory of Acceptance and Use of Technology (UTAUT)**

The Unified Theory of Acceptance and Use of Technology model (UTAUT) is one of the latest models that have been developed in the field of technology acceptance models. The aim of UTAUT is to explain the user's intention to use IS and the further usage behavior (Venkatesh et al., 2003). Venkatesh et al. (2003) created this model in an attempt to provide a more complete picture of the constructs related to the acceptance process. The constructs of UTAUT are determined by combining eight previous theoretical models of technology and human behavior. These models are: DOI model, TAM, the Theory of Reasoned Action (TRA), TPB, Combined TAM-TPB, Social Cognitive Theory (SCT), Model of Personnel Computer Utilization (MPCU), and Motivational Model (MM). As a result of the combination, UTAUT has been constructed to include four core constructs that are directly related to technology acceptance (behavioral intention) and usage (behavior). These constructs are performance expectancy (the degree to which an individual believes that using the system will help him or her to attain gains in job performance), efforts expectancy (the degree of ease associated with the use of the system.), social influence (the degree to which an individual perceives that important others believe he or she should use the new system), and facilitating conditions (the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system). They are moderated by four variables: age, gender, experience, and voluntariness of use (Venkatesh et al., 2003). The model of UTAUT has been adopted by a number of researchers to explain the usage intention. However, researchers tend to adopt some, one or two, of UTAUT constructs instead of adopting the whole model with all four constructs (Williams et. al., 2011; Venkatesh et. al., 2012). Consequently, a further study of the full model is needed (Venkatesh et. al., 2012).

### **The Influencing Constructs on Citizens' Adoption of E-government**

It is a well-known fact that the role the e-government plays in facilitating electronic transactions with citizens is important. Despite the benefits and the opportunities provided through e-government services, the success of the diffusion depends to a large extent on the intention of the citizens to adopt its services. The citizens' behavioral intention, in turn, is influenced by several factors. The effect of these factors varies from one citizen to another. The behavioral intention has been employed in the majority of technology adoption research projects to predict technology adoption (Irani et al., 2009). The core constructs that affect the individual's behavioral intention have been explored through the following theories: TPB, TAM, DOI, and UTAUT. In the case of e-government, many studies employ these models to examine the influence of these constructs on the citizens' acceptance of e-government. For instance, Kanat and Ozkan (2009) adopted TAM, TPB, and trust constructs to study their influence on Turkish citizens' acceptance of e-government. Similarly, Al-adawi et al. (2005) have employed the same models in their study to examine citizens' adoption of e-government.

In addition, Sahari et al. (2012), Al-Hujran et al., (2011), and Hung et al, (2006) adopted TAM as the main model to explain the citizens' intention to use e-government. Since the aim of this study is to investigate the underlying constructs that influence the citizens' intention to use e-government services, highlighting these constructs is very important to predict the success of the e-government system. Identifying these constructs may contribute to forming new indices through which to assess the performance of e-government in countries. In this section several constructs that influence the use of e-government services including; trustworthiness constructs (trust on Internet and trust on government), TAM constructs (perceived ease of use and usefulness), corruption, social influence (SI), and are discussed. Furthermore, previous researches conducted on these constructs are explored.

### Trustworthiness Constructs (Trust in Government and Trust in Internet)

The concept of trust has been examined in many studies related to e-government. The majority of these studies tend to explain the concept of trust from two dimensions; trust in the Internet and trust in the government. The trust in the government is defined as an individual's perceptions regarding the integrity and ability of governments' agencies to provide the service (Becerra and Gupta, 1999; Belanger and Carter, 2008; McKnight et al., 1998). On the other hand, the trust in the Internet is defined by Carter and Belanger (2005) as "the trust in the reliability of the enabling technology".

Carter and Belanger's (2005) study on e-government adoption can be a good example of the application of trustworthiness dimensions. Carter and Belanger (2005) propose a model that examines the influence of trust on the citizens' intention to accept e-government. The model integrates TAM, DOI, and trustworthiness constructs. Their study is one of the very initial studies that measured trustworthiness in e-government context, focusing on measuring the citizens' trust in the government and their trust in the Internet. Carter and Belanger (2005) argue that the individual decision to accept e-government depends on whether the service provider (i.e. government) and the enabling technology (i.e. the internet) were trustworthy or not.

Moreover, several studies in the e-government context have linked the citizens' trust in the government and trust in the Internet to their intention to adopt government online services (Chadwick and May, 2003; Tolbert and Mossberger, 2006; Amagoh, 2015). Tolbert and Mossberger (2006) argue that the citizens' trust in the government increases if e-government improved its interaction and responsiveness with them. In support of this argument, Chadwick and May (2003) state that e-government services increase the communication between the citizens and the government which accordingly increases their trust in the government. Thus, e-government can be considered an improved method that enhances the citizens' evaluations and trust in their government.

Furthermore, a number of studies argue that the adoption of e-government depends on the citizens' belief in the capability of the Internet to provide information and secure transactions (Carter and Belanger, 2005; Warkentin et al., 2002). Carter and Belanger's (2005) proposed hypotheses in their study state that the trust in the Internet's technology and the trust in the government positively influence the citizens' intention to use e-government services. They tested this on a large sample of United States citizens. The findings of the study supported their hypotheses that the citizens' trust in the Internet and trust in the government had a significant positive influence on the citizens' intention to use e-government services. Another study by Carter and Weerakkody (2008) shows results that are consistent with Carter and Belanger's (2005) finding that both the trust in the government and in the Internet positively influences citizens' intention to adopt e-government.

The previous studies show the role of the trustworthiness constructs (trust in government and trust in the Internet) in shaping the individuals decision to adopt online services (e-government). Thus, it is very important to examine the influence of trustworthiness perceptions (trust in government and trust in the Internet) on the citizens' intention to adopt e-government services. Hence, we argue that the trust in the government and the trust in the Internet positively affect the intention of citizens to use e-government. This leads us to propose the following hypotheses:

**H<sub>1</sub>** The citizens' trust in the government positively affects their behavioral intention toward using e-government.

**H<sub>2</sub>** The citizens' trust in the Internet positively affects their behavioral intention toward using e-government.



## Perceived Corruption

The concept of corruption has been explored widely in the economic context to understand its influence on economic development. In respect to this, many countries have made efforts to fight corruption and increase transparency. One of the solutions that have been considered to fight against corruption is implementing ICT to enhance transparency. Before discussing the role of ICT in fighting corruption, it is important to form a clearer picture of the definition of corruption and the factors of corruption.

Corruption is defined as “a decay in the decision-making process in which a decision-maker (in a private corporation or in a public service) consents or demands to deviate from the criterion, which should rule his decision making, in exchange for a reward, the promise or expectation of it” (Van Duyne, 1996). A common definition by Tanzi (1998) and Rose-Ackerman (1999) describes corruption in a narrow sense as the abuse of public power to achieve private benefit. According to Kaufmann et al. (2003), there are three driven factors for corruption: monopoly of power (the absolute authority of the public officials in enforcing regulations and policies), discretion (the ability of public officials in enforcing regulations and policies in an absolute discretion manner), and accountability and transparency (lack of accountability and transparency over public officials’ actions). Thus, since we are examining the influence on the citizens’ intention to adopt e-government services, the definition of corruption will be in the citizens’ perception of government corruption. Therefore, for the purposes of this study, corruption is defined as the lack of government integrity to account for or accept responsibility for its actions, and the failure to disclose the information and decision-making process in a transparent manner.

Government adoption of ICT enables e-government to reduce interactions with officials and enhance the accountability and transparency of the services that the government provides online. In this respect, many studies discussed the role of e-government in improving the government’s performance, not only through improving the efficiency and the effectiveness of its services, but also through its significant effect on improving transparency and accountability, which means reducing the level of corruption (Hopper et al., 2009; Bertot et al., 2010; Singh et al., 2010; Lupu and Lazar, 2015). Additionally, e-government helps with increasing the transparency of the decision-making process since it offers opportunities for the citizens to provide their ideas and suggestions openly in online communities (Ndou, 2004). E-government web sites could be valuable resources for transparency if they have been designed carefully and openly; hence, citizens, businesses, and stakeholders will be able to see political and governmental information, rules, and policies (Ndou, 2004).

The studies that have been discussed above focuses on examining the relationship between corruption and e-government based on the benefits of e-government, which enhances accountability and transparency and accordingly reduces the perception of corruption. These studies confirm the validity of this relationship and show the role that e-government plays in increasing transparency and accountability. Furthermore, some studies mentioned that increasing the use of e-government will cause a reduction in the level of corruption. From this point, we will argue that it is important to conduct further studies that investigate the relationship between corruption and the usability of e-government services.

In addition, prior research shows the relation of e-government and corruption after the process of adopting e-government. In other words, this relation cannot be studied unless the citizens are already using e-government services. However, the citizens’ intention to use e-government services is one of the critical challenges facing e-government. Before studying the relationship between these two elements, e-government and corruption, it is important to study the relationship between corruption and e-government adoption by citizens (i.e. citizens’ intention to use e-government). Constructs, such as corruption, not only affect the growth of e-government but also may impact the citizens’ trust in the government. If the citizens perceive the government as highly corrupted, then their confidence in the government will be negatively affected. Thus, as mentioned in the previous section, low trust in the government negatively affects their intention to use e-government services. If the citizens do not intend to use e-government services, then the

e-government will not be effective in reducing the corruption level. From this aspect, we argue the importance of a further study that regards the citizens' perceptions of corruption and the extent of its impact on the citizens' behavior toward e-government adoption, because the further growth of e-government and its consequent impact on corruption relies on their behavior and decision to adopt e-government. Therefore, we argue two points; the first point is if the citizens' trust in government increases, then their perceptions of corruption will decrease. The second point is if the citizens' perception of corruption is low, then their intention to adopt e-government will increase. This leads to the following hypotheses:

**H<sub>3</sub>** The citizens' trust in the government negatively affects their perception of government corruption.

**H<sub>4</sub>** Perceived corruption by citizens negatively affects their behavioral intention toward using e-government.

### **TAM Constructs (Perceived Ease of Use and Perceived Usefulness)**

The influence of ease of use (PEOU) and perceived usefulness (PU) on the citizens' intention to use technology was proposed by Davis et al. (1989) in TAM. The validity of this proposition has been confirmed in many studies (Warkentin et al., 2002; Carter and Belanger, 2005; Al-Hujran et al., 2011; Belanche et al., 2012; Amagoh, 2015; Susanto and Aljoza, 2015). Although the characteristics of PEOU and PU were identified in TAM, researchers still attempt to identify more dimensions to provide a better explanation of the characteristics of these two constructs. For example, Alawadhi and Morris (2009) argue that PU refers to three dimensions: time, access, and efficiency. Similarly, Gilbert et al. (2004) refer to usefulness using the term "benefits". They classify the benefits of using e-government into the same three dimensions. These studies have identified the dimensions of PU through examining users' perceptions of the benefits of using e-government. These benefits consist of saving money and time, and reduce direct human interaction. In reference to saving money, Ndou (2004) states that applying new online services decreases the processing cost compared to doing so manually.

Some studies refer to PU as the users' perception of the benefits that they will gain through using online services. These benefits consist of making the job easier to perform, improving the job performance, increasing productivity, and enhancing work effectiveness (Susanto and Aljoza, 2015). However, this dimension of PU is limited to the work organizational context, which means it could be applicable inside an organization since it explains workers perception of the usefulness of new technology that their organization implements. This dimension cannot be generalized to explain general users' perception of a service's usefulness. In other words, in order to study the influence of citizens' perception of the usefulness (PU) of e-government services on their intention to adopt these services, it is better to consider citizens as a "customer" and e-government service as an "online service provider". In this case, citizens' perception of the usefulness of the service does not refer to improving their performance but to the advantage of using the service which can consist of the benefits of saving time and money, and increase the efficiency of the interaction with the government (service provider). This leads to the following hypothesis:

**H<sub>5</sub>** The citizens' PU positively affects their intention to use e-government services.

As for PEOU, some studies explain it from these dimensions: easy to perform tasks and easy to access information to understand the information. On the other hand, other studies considered PEOU, aside from PU, as a construct that falls under website design. In this context, Kumar et al. (2007) examined the role of the design of e-government websites in influencing citizens' satisfaction and their adoption of e-government services. The study investigated the role of both TAM constructs (users' PEOU and PU), as well as users perceived navigation, accessibility, and personalization in affecting users' satisfaction and e-government adoption. The findings of this study supports their argument and shows that ease of navigation, personalization, and accessibility plays an important role in citizens' satisfaction and in their adoption of e-government. Similarly, Kang and Kovacevic (2012) linked PEOU with the design of the website. In

general, they argue that well-designed websites help users to easily access the information which develops a perception of the website and, affects their intention to adopt the online services.

Well-designed e-government websites can be predicted if: 1) the services are easy to access, 2) the website is accessible anytime during the day, 3) it is easy to access to information and the websites. All these elements affect the intention of the citizen to use government services. This means that it is important to understand the role that the website design plays in building the users' perception toward the ease of using e-government services. What users expect from online services is getting the service without making any effort. Warkentin et al. (2002) argue that if the citizens find that interacting with e-government services is easy, then, their intention to use the services will increase. In return, complex websites discourage the customers from engaging in this service again (Flavian et al., 2006).

Given the above, the elements of PEOU and PU in this study covers more dimensions in order to provide better explanation of the influence of the citizens' PEOU and PU on their behavioral intention toward using e-government. In the context of this study, the citizens' PEOU of e-government services covers the following dimensions: the easy usage of the website, the easy access of the website, the accessibility to information, flexible services, and suitable customer support. The citizens' PU of e-government services covers the following dimensions: increasing interaction with government, providing valuable services, anytime accessibility, and reducing cost and time. Thus, the following hypotheses are proposed:

**H<sub>6</sub>** The citizens' PEOU positively affects their intention to use e-government services.

**H<sub>7</sub>** The citizens' PEOU positively affect their PU.

### Social Influence (SI)

The term of *social influence* can be translated to subjective norm. Both terms refer to the same construct that is identified in previous research to describe an individual's social influence from others. Social influence is defined by Venkatesh et al. (2003) as the degree to which an individual perceives that significant others (family, friends, etc) believe (whether positively or negatively) that he or she should use the new system. Previous research classified the groups that influence individual decisions into three groups: family, friends or colleagues, and media influence (Hung et al, 2006). In this study, social influence refers to the degree to which others beliefs will affect someone to use e-government.

Previous theoretical models proposed the construct of subjective norm to investigate its impact on behavioral intention. For example, TPB and TRA proposed the construct of subjective norm, to explain social influence, and hypothesized that it has a significant affect on individuals' behavioral intentions (Ajzen and Fishbein, 1975; Venkatesh, et al., 2003). In addition, the UTAUT model used the same construct under the name of social influence, instead of subjective norms. The model also argued that social influence has an effect on behavioral intention. More studies have proved that the social influence has an impact on the individual's behavioral intention. Other studies related to e-government have showed a positive influence of social influence on the citizens' behavioral intentions. Fishbein and Ajzen (1975) using the TRA model argue that the individual behavior is formed based on the individual's intention. That intention is influenced by different construct; one of these constructs is social influence (Fishbein and Ajzen, 1975).

Several studies (Hung et al., 2006; Sahari et al., 2012; Kurfali et al., 2017; Wang and Lo, 2013) have examined the influence of the construct "social influence" on the intention to use e-government. The results showed that social influence has no significant affect on intentions. For instance, Wang and Lo (2013) found that family and friends, under subjective norms, opposed the use of e-government; however, it didn't affect the individual's intention to use e-government. Hussein et al. (2010) and Hung et al. (2006) conducted studies to identify the affects of subjective norms on an online tax-filling service. Hussein et al.



(2010) found that subjective norms do not influence the intentions to use online tax-filling services. However, Hung et al. (2006) found that subjective norms have a positive influence on intentions. Similarly, Alshehri et al. (2012) investigated the impact of social influence on the intention of using e-government. Their findings showed that social influence has no impact on intentions to use e-government.

Given the above, we conclude that social influence has two impacts, direct and indirect. Social influence can directly affect behavioral intentions (direct affect). Social influence can also affect another construct, trust in government, thus on intention (indirect affect). Further, social influence is expected to affect the perceived usefulness of e-government services. Therefore, we hypothesize the following:

- H<sub>8</sub>** The social influence affects the citizens' behavioral intentions to use e-government services.
- H<sub>9</sub>** The social influence affects the citizens' trust in the government.
- H<sub>10</sub>** Social influence affects the citizens' perspective of the usefulness of the e-government services.

**Research Conceptual Model**

Based on the literature and theoretical models that have been discussed in the previous sections, this study proposes a conceptual model that explains the citizens' intention to use e-government (Figure 1). The proposed model is formed based on TAM, perceived trustworthiness (TOG and TOI), SI, and the corruption construct. Integrating PU, PEOU, SI, TOG, TOI, and perceived corruption constructs provides a comprehensive explanation of citizens' intention to use e-government services. PU and PEOU were extracted from the TAM theory. TAM was chosen because it covered elements that were explained in DOI. For example, PEOU explains the complexity construct that is driven from the theory of DOI. PU is the same construct as relative advantage. The trustworthiness constructs (TOG and TOI) which are adopted from Carter and Belanger (2005) have been introduced to our conceptual model. TOG and TOI are important because they tackle behavioral intention of online services. The trust in the government is a construct that citizens consider before using e-government.

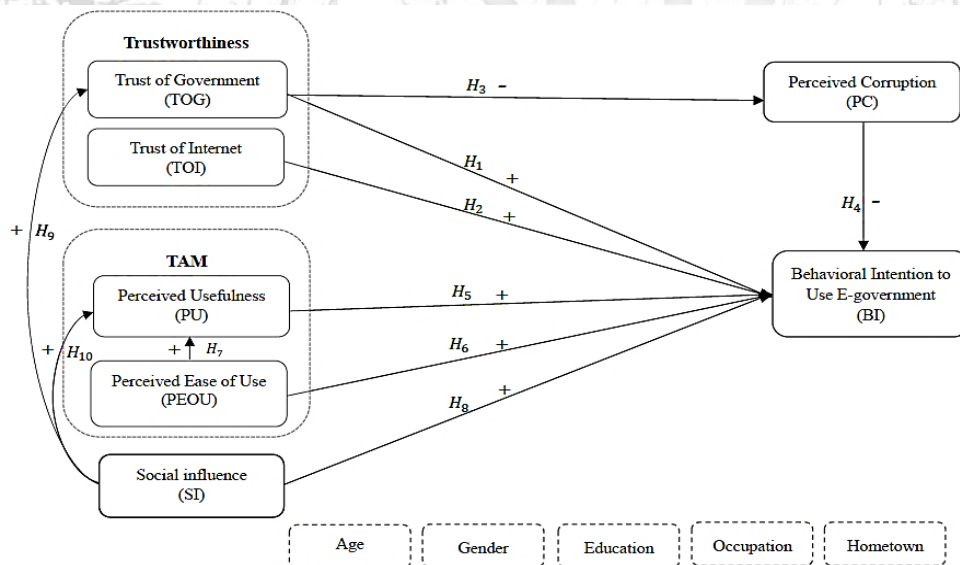


Figure 1: Research Conceptual Model

The citizens' lack of trust in the government leads them to believe that the government is corrupted, thus, affecting their use of e-government. To enhance our model, Social influence (SI) has been adopted from UTAUT theory. SI is an essential construct when the society is the focus group; therefore, there could be a

possible affect on intentions, perceived usefulness', and trust in the government. The control variables: age, gender, education, occupation, and hometown have a moderate affect on the relationships of the constructs on intention.

The conceptual model identifies the influence of the constructs we proposed in regard to behavioral intention. In particular, the model explains the influence of TAM constructs (PEOU and PU), perceived trustworthiness (TOI and TOG), and UTAUT construct (social influence) on the citizens behavioral intention (BI) to use e-government. The model also explains the influence of perceived corruption on the citizens' behavioral intention to use e-government. In addition, the model argues that there is a direct and indirect relation between TOG and behavioral intention, and there is a direct and indirect relation between SI and PU, and SI and TOI. The model illustrates the relation between the dependent variable (BI) and the independent variables under the control of the variables of age, gender, education, occupation, and hometown.

## Conclusion

This study proposes a conceptual model to provide a theoretical foundation for investigating underlying constructs that influence the citizens' intentions to use e-government services. The developed conceptual model integrates the perceived usefulness and perceived ease of use constructs from the Technology Acceptance Model, trustworthiness constructs (trust of government and trust of the Internet), the social influence construct from UTAUT, and a corruption construct. We have discussed multiple dimensions to explain each construct that are used in the model. This helps provide a better understanding of the influences on the citizens' adoption of e-government services. Moreover, the construct of perceived corruption is introduced into the model. The effect of perceived corruption on behavioral intention and the effect of trust in the government on citizens' perceived corruption have not been studied in previous research, which constitutes an addition to the existing literature on e-government adoption context.

In order to test the sufficiency of the proposed model, a future empirical study must be carried out. Until now, there has not been any research which investigates the effect of constructs such as corruption on the adoption of e-government in developing country like Saudi Arabia. Therefore, we decided we will examine the model in the context of the citizens of Saudi Arabia. The empirical examining of the model will contribute to testing the validity of the constructs of the proposed model and to measuring the relationship between these constructs.

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