

# Solution of E-Government Problems with Technology Acceptance Model Approach

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## Abstract

The application of electronic government has many obstacles, both from the end user and other stakeholders, even though the e-government system aims to create a process that facilitates the process of providing services to citizens. Several factors that cause users to reject the use of electronic government are related to the use of technology adopted by e-government and the benefits of technology that support e-government. By analyzing the causes of rejection of e-government, this study aims to provide a solution to the problem of using e-government with a technology acceptance model (TAM) approach. The research method used a qualitative approach by conducting observations and interviews with e-government users and literature studies related to solutions to the problems of implementing e-government. The result of this study is an extension of the TAM for e-government.

## Keywords

TAM, electronic government, model

## 1. Introduction

E-Government is the utilize of innovation to upgrade the get to and conveyance of government administrations to advantage citizens, trade accomplices and workers. It has the control to make an unused mode of open benefit where all open organizations convey a modernized, coordinates and consistent benefit for their citizens. The relationship is now not fair a one-way 'us-versus-them' recommendation; or maybe, it is approximately building an association between governments and citizens.

Indeed in spite of the fact that most of the fervor centers upon the Web, governments must be mindful that e-Government influences each viewpoint of how an organization conveys benefit to the open. It isn't just technology; it isn't fair trade forms; it isn't fair human assets. It is all these zones combined. At the center of it all is the client.

Large investment of funds and resources to build e-government should result in maximum government performance. However, from several observations made, there are still many e-government developments that are not functioning as expected. There are several factors that hinder the employment of electronic government as follows: organizational constraints, human resource constraints and infrastructure constraints. This research goals to identify the obstacles that hinder electronic government and provide solutions using a technology acceptance model. The output of this study is the application of a TAM to increase the usage of electronic government.

Previous investigation on Technology Acceptance Model and electronic government and other fields is Measuring e-government adoption[(Dahi,2015), Measuring resident adoption of electronic Government (Lin,2011) , model of resident implementation of e-government(Napitupulu,2017), Elucidating usage of e-government learning([4 (Shyu,2011)and TAM for SME(Inayatulloh ,2020).

## 2. Literature Review

### 2.1 E-Government

E-Government, commonly known as e-government, computerized government, online government or government change, is an exertion to create electronic-based administration. An course of action of administration frameworks and work forms inside the government by optimizing the utilize of data and communication innovation (Hassall,2017),(Manoharan, 2018),(Joshi,2018).

Electronic -government is the utilize of data and communication innovation (ICT) to advance more productive and taken a toll compelling administration, encourage government benefit offices and give get to data for the common open, and make government more responsible to society .

There are three common characteristics of each definition of e-Government, to be specific each may be a unused (present day) interaction instrument between the government and society and other interested parties (partners); which includes the utilize of data innovation (particularly the web); with the point of making strides the quality (quality) of progressing services.

There are four models of E-Government delivery,including:(Batara.2017),(L,2020),(Noveriyanto,2018),Rao,2011): Government-to-Employee, Government-to-Customer and Government-to-Business

E-Government is the utilize of data innovation by the government to supply data and administrations for its citizens, trade issues, and other things connecting to government. Electronic government can be connected to the administrative, judges, or open organization, to extend inside effectiveness, convey open administrations, or prepare equitable governance.

The most conveyance models are Government-to-Government, Government-to-Citizen and Government-to-Business. The foremost anticipated benefits from e-government are expanded effectiveness, comfort, and way better openness of open administrations. E-Government has numerous definitions where nearly each vital institution or indeed the government of the State features a definition of E-Government. In any case, the definition is as a rule not much distinctive, which is basically the utilize of Innovation and Data in Government Exercises. The taking after is the definition of E-Government. UNDP: E-Government is the utilize of data and communication innovation (ICT-Information and Communication Innovation) by the government.

Within the Presidential Instruction of the Republic of Indonesia Number 3 of 2003 concerning National Arrangements and Techniques, it is expressed that E-Government Improvement E-government improvement is an exertion to create (utilizing) electronic-based administration in arrange to progress the quality of open administrations viably and proficiently.

### 2.2 Technology Acceptance Model

Acceptance of the use of technology based on influence of two cognitive factors, namely perceived usefulness and perceived ease of use (Davis,1986)(Davis, 1989). TAM adopts a chain of causes a result of beliefs, attitudes, intentions, and behaviors as proposed and which became famous Theory of Reasoned Action (TRA). Based on belief certain someone forms an attitude towards an object on the basis of the intention to be hases towards an object. Davis adapted TRA with develop two beliefs that are specific to the use of technology. Figure 1 is a drawing of the initial TAM

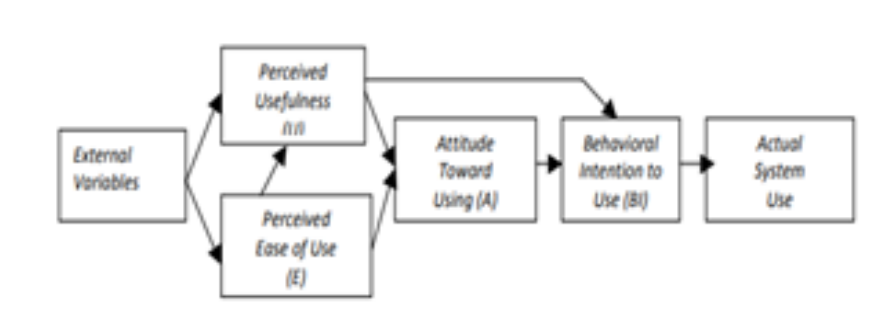


Figure 1 Technology Acceptance Model

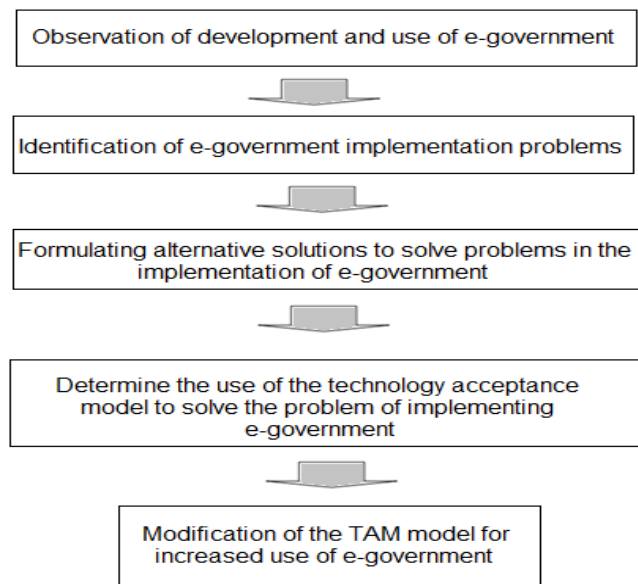
## 2.3 Model

A show could be a representation, or depiction that portrays an protest, framework, or concept, which is frequently a simplification or idealization. The shape can be within the frame of a physical show (mock-up), a model frame, an picture show (plan drawing, computer picture), or a scientific equation. The model has been used in many studies such as the TAM model for SME(Inayatulloh,2020), the block chain model for regional head elections(Inayatulloh,2020), the CSF Model for SMEs(Inayatulloh,2020), a model for new businesses (Inayatulloh,2016) and a model for early warning systems for diseases(Inayatulloh,2015)

## 3. Methods

Figure 2 explain the research method. The research began by observing the implementation of e-government. Based on observations, several problems were found associated to the employment of e-government. After the problem is found, the research is continued by looking for alternative solutions to solve the problems found. From the several alternative solutions, one method was chosen, namely the Technology acceptance model as the best solution

Collecting data through questionnaires and interviews, with random sampling purposive sampling, The questionnaire was structured to obtain categorical data. Interviews were conducted for collect data on the availability of supporting technology infrastructure for e-gov.



## 4. Results and Discussion

TAM modification for e-government enhancement is divided into 2 parts where the first part is connected with the problem of implementing e-government and the second part is the relationship to the Technology acceptance model so that this model can be a solution for implementing e-government.

Part 1 describes the problem where based on observing the implementation of e-government implementation there are 4 problems, namely:

a. Lack of trust in e-government where this problem can be resolved by building trust in all stakeholders related to e-government. Several activities are carried out to build trust, such as the socialization of the advantages of e-government, work effectiveness and efficiency resulting from the application of e-government. This outreach should be provided to all e-government users, both internal and external users. the next step is to make regulations that require stakeholders to use e-government. This process needs to be done in stages so that stakeholders can adapt to e-government.(Napitupulu ,2020),(Purwanto,2017)

b. Lack of budget is a problem that comes from internal government because of the lack of awareness of the importance of implementing e-government. The solution to this problem is the addition of e-government development

budgets by explaining to decision makers in government the importance of implementing e-government.(Wijayanto 2015) ,(Wirawan,2018),( Puspitasari,2013)

c. Incompatible process is the gap between the current process and the process using e-government. The solution to this problem is to reengineer ongoing government processes and must adapt them to e-government processes.(Darmawan,2011),(Nugraha, 2018)(Dewandaru,2013)

d. The lack of regulatory support stems from a lack of commitment to support from decision makers for e-government implementation. The solution is to make new regulations to support the implementation of e-government.[(Lumbanraja,2020),(Wahid,2007)

The second part of this model is the relationship with the Technology acceptance model where there are 2 main activities that are related as follows

a. Training to explain the benefits of e-government is an activity carried out to build awareness that e-government really helps stakeholders, both internal and external. The descriptions provided must be complete in order to produce a comprehensive understanding of the benefits of e-government (Lee,2019),(Casalino,2014),(Tzikopoulos,2012).

b. Simulation of using e-government where the purpose of this activity is to illustrate how easy it is to use e-government. Simulation of using e-government is used so that e-government users can immediately experience the ease of using e-government(Rachmawati, 2014),( Suh,2019),(Abdelmajeed,2015)

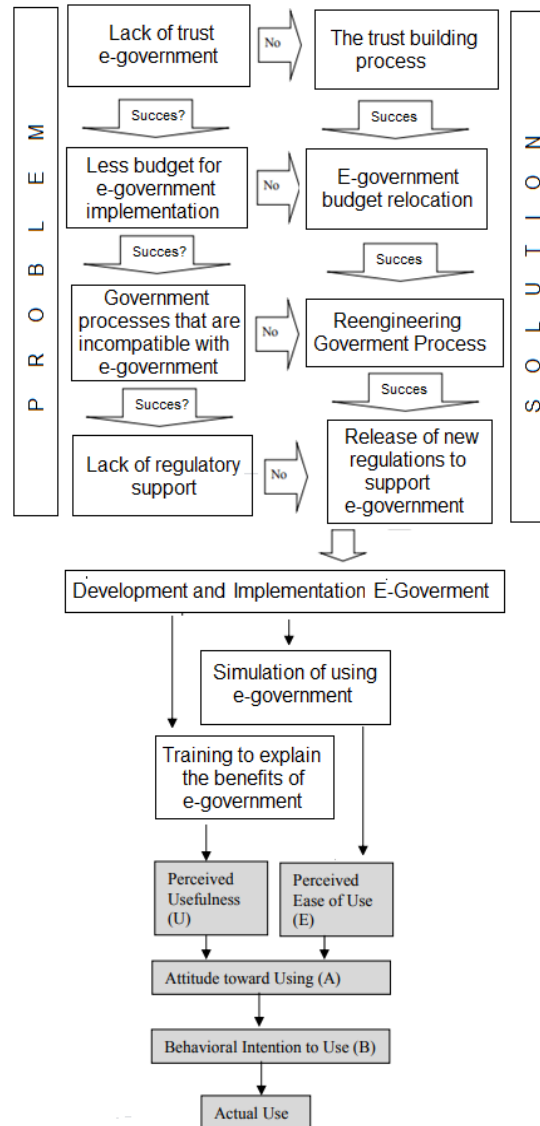


Figure 3. Modified TAM model for increased use of e-government

## 5. Conclusion

The model generated from this research can help the government solve several problems related to the implementation of e-government both in terms of regulation, budget and more importantly, the use of an approach with a technology acceptance model that will maximize the use of e-government by all stakeholders

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## **Biography**

**Inayatulloh** is a candidate doctor at Bina Nusantara University's Doctor of Computer Science. Since 2000, Inayatulloh has been a lecturer at Bina Nusantara University, school of information system. I am experienced in system development in several companies such as garment, petroleum, retail and others. Scopus indexed publications have been produced with topics related to information systems such as e-learning, e-SCM, e-CRM. E-government, block chain and others