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## Understanding of Public Behavioral Intent to Use e-Government Service: An Extended of Unified Theory of Acceptance Use of Technology and Information System Quality

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#### Abstract

This study aimed to assess the factors that influence public behavior towards e-government service in Indonesia. The model used in this study was UTAUT which this model we have enriched with the addition of ISQ extracted from two dimensions of credibility and usability. Total respondents were 279 validated, the method used in evaluating the sampling data was Structural Equation Modeling (SEM). From the result of the hypothesis, it was found that all existing hypotheses showed a significant, valid relationship and positive value.

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Keywords: e-Government; ISQ; UTAUT Model

#### 1. Introduction

There are many definitions of electronic government (e-government), but in general it can be defined as the use of computers and the Internet used by government to provide services and communicate with citizens, business and stakeholders [1]. In the current era of information technology, services to the public can not be separated from the use of information technology. As a central public service, the role of e-government is needed to facilitate access to information and communication.

UTAUT (Unified Theory of Acceptance and Use of Technology) is a model built by [2] to measure the performance

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of an information technology whose benchmark is taken from the user's perspective. This theory is adopted from several previous theories of technology acceptance such as Theory of Reasoned action (TRA), Theory of Planned Behavior (TPB), Innovation Diffusion Theory (IDT) and Technology Acceptance Model (TAM) [3]. The UTAUT model has been widely adopted to measure e-government performance from user perspective.

In this study we used the UTAUT framework [2] and then we rededicated and added the ISQ model [4]. The research method we use to validate e-government behavior from the perspective of public users was an empirical approach. We collected 279 data from end-user e-government in Indonesia using questionnaire and we analyzed. Of the six hypotheses we submitted successfully showed that all hypotheses had significant relationship. The results of this study can be used as a reference for e-government providers in providing services to the public. This research can also be used as a guide for making e-government in order to achieve what should be made, in order to give benefit to the public.

#### 2. Illustrations literature review and hypothesis design

#### 2.1. Information system quality (ISQ)

ISQ is a combination of information quality and system quality concept [4]. The main purpose of the ISQ is to provide guidelines for determining the quality of an information system itself in order to provide the desired results required by the user. [4], explained in detail that there were two dimensions to determine the ISQ of Usability and Credibility. Still in the same study [4], explained the importance of ISQ in increasing public satisfaction in terms of e-government services, it had impact on the sustainability of the use of e-government itself. In other words, the better ISQ will be the better the satisfaction of the majority to e-government which means will increase interest in the use of e-government. In another ISQ study had a positive impact on the online learning process and can increase the learning interest itself [5, 6]. Therefore, we make the following hypothesis:

H1: Information System Quality (ISQ) positively affects Public Behavioral Intention to Use eGov (PBIG)

H2: Information System Quality (ISQ) positively affects Public Performance Expectancy (PPE)

H3: Information System Quality (ISQ) positively affects Public Effort Expectancy (PEE)

#### 2.2. Public performance expectancy

Performance expectancy is a construct that reflects a value that has a link to behavioral intent to use or adopt information technology, but performance expectancy aims to capture users' perceptions of the extent to which using a particular technology can help them achieve their desired goals [7]. In the context of e-government, this can be applied to infer the extent to which people perceive the value or potential use of e-government such as e-tax and e-complaint in government institutions. Therefore, the following hypothesis is proposed:

H4: Public Performance expectancy positively affects Public Behavioral Intention to Use eGov (PBIG).

#### 2.3. Public effort expectancy

According to [2] Effort Expectancy is a degree of ease that has a relationship with the use of the system. Effort Expectancy is adopted from perceived ease of use in the TAM concept and is used to assess perceptions of individual or individual efforts in information technology learning efforts. Another study stated that perceived ease of use equals with effort expectancy [8]. In the context of this research, Effort Expectancy is a government-built effort through e-government to serve the community in order to feel comfortable in using public services. In other words, Effort Expectancy aims to measure perceptions and levels of public participation in efforts to improve the use of e-government services.

H5: Public Effort expectancy positively affects Public Behavioral Intention to Use eGov (PBIG).

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