# THE USE OF DELONE AND MCLEAN IS SUCCESS MODEL AND UTAUT APPROACH IN REVIEWING ANY FACTORS WHICH INFLUENCE KOMINFO PORTAL SYSTEM

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## ABSTRACT

Department of  Data Center and Information Facilities (Pusdatin) of the Ministry of KOMINFO is one of the Ministries in Indonesia that has the task of carrying out affairs in the field of communication and information technology in the government. The Web Portal  Kominfo has many benefits every day for the performance of employees. At present the web Portal used by internal parties experiences obstacles such as the SLA that is not yet clear and sometimes slow response. So that it inhibits operational activities. For this reason management of the Ministry of Information and Technology Center conducts an evaluation on the Communication and Information Web Portal system so that employees have no difficulty in using it. The purpose of researching and analyzing how successful the implementation of the web portal system at the Ministry of Communication and Information, with  the method used DeLone and McLean, and two additional variables from UTAUT. The population is internal employees who already have accounts to use the web portal and the number of samples needed in the study of  356 samples, and data processing using Smart PLS. This research uses several variables from DeLone & McLean, including: Information Quality, System Quality, Service Quality, Use, User Satisfaction, Net Benefit, and two additional variables from UTAUT, namely Performance Expectancy and Effort Expectancy. Some of the variables involved in this study include some influence on the Communication and Information web portal. The success of information systems is strongly influenced by several factors, where these factors are very dependent on the conditions and environment in which the system is implemented. To find out which factors are the most dominant, a factor analysis is needed by first submitting a number of hypotheses on factors that are theoretically considered to influence the success of the system. Data processing results show that 6 out of 11 hypotheses are considered to be proven, namely that user satisfaction is strongly influenced by second main factors as follows: information quality, service quality, and  net benefits influenced by Intention to use , User Satisfaction, and the remaining  any 5 hypothesis are rejected.

**Keywords** : *Factors, Kominfo Portal, DeLone & McLean, UTAUT*

## 1.  INTRODUCTION

The Ministry of Communication and Information (KOMINFO) is one of the ministries in Indonesia that has the task of carrying out affairs in the field of communication and information technology in the government to assist the President in organizing state governance. The Ministry of Communication and Information has a head office on  Central Jakarta with the number of employees of more than 3000 employees spread throughout Indonesia and divided into several departments, one of which is the Department of Data Centers and Information Facilities (Pusdatin). The Pusdatin has the duty to manage data from every need Ministry of Communication and Informatics employee,  one example of which is managing the Communication and Information Portal Web System.

The Communication and Information Web Portal brings many benefits on daily basis for KOMINFO's employee performance. For this reason, the manager of the Communication and Information Web Portal at the Department of Data Centers and Information Facilities provides an evaluation on the Communication and Information Web Portal system so that employees have no difficulty when they need.

Evaluation can help the government to ascertain whether they can do work in providing services as expected [1]. Therefore, the authors consider the Evaluation of the Communication and Information Portal System with  the Delone and Mclean Approach to be done so that the expected results can be achieved.

Within the scope of the information system, user needs for information systems must be detected

properly by the system designer (including in the IS department) so that the system to be implemented in an organization can meet the needs of the users in concerned [2]. The research in identifying the main factors of satisfaction of users of information system functions (USISF) as follows: information product quality, level of knowledge and involvement of users of information systems, and attitudes towards information system function staffs [8].

The expansion of the functions of the IS department along with the progress and changes in the global business environment demands an increase in the scope of the information system success model proposed [10]. offer an updated model by adding quality factors to information system services. The quality of services together with the quality of the system and information will affect the usability and user satisfaction of information system services. In addition the differences in the position of users in an organization might influence the perception of user satisfaction [11].

At present day, the Communication and Information Web Portal used by internal parties experiences obstacles such as the SLA that is not yet clear. This, sometimes, leads to a slow response. So that, it results in a delayed operating activity. And also, some supporting hardwares sometimes face problems such as fingerprint for attendance
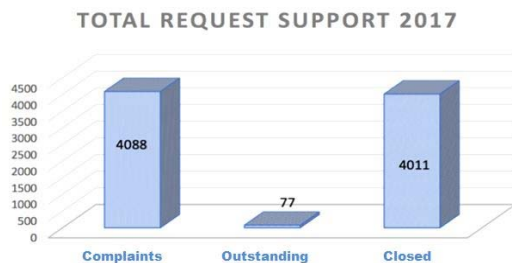


*Figure 1: Total Request Support 2017*

In 2017, the demand data for support from employees that were successfully recorded had shown 4088 complaints and 4011 of which had been resolved. 77 requests were still outstanding. Meanwhile, there were 3211 complaints which the response time of each complaint can be resolved according to time based on the service level aggrement (SLA) There were 723 complaints became overdue while the 77 complaints were imposed with penalty.

This research will examine and analyze the extent of the successful implementation of Web Portal of the Ministry of Communication and

Information Technology (KOMINFO) based on the user's perspective, by taking into account 6 (six) variables in the Delone and Mclean's Information System Success Model [6].

Research Question
This research will examine and analyze the extent of the success of Web Portal implementation based on the user's perspective, by looking at the 6 (six) variables in the Delone and Mclean Information System Success Model,. as follows:
1. Does information quality have a positive impact to use?
2. Does information quality have a positive impact to user satisfaction?
3. Does the system quality have a positive impact to use?
4. Does the system quality have a positive impact to user satisfaction?
5. Does service quality have a positive impact to use?
6. Does service quality have a positive impact to user satisfaction?
7. Does use have a positive impact to user satisfaction?
8. Does use have a positive impact to net benefits?
9. Does user satisfaction have a positive affects to net benefits?
10. Does performance expectation have a positive affects to intent to use?
11. Does effort expectancy have a positive affects to intent to use?

Objectives
The main objective of this research is to find out the factors that influence the successful implementation of the web portal system that is implemented at the Ministry of Communication and Information using the DeLone McLean variable added to the UTAUT model.

The benefits of this writing are:
1. Academically, this research is expected to provide empirical evidence about the information system success DeLone McLean model applied to Kominfo Web Portal System.
2. Practically, the results of this study are expected to provide feedback to improve the efficiency and effectiveness of the Communication and Information Portal System as an information system user agency.

## 2. THEORETICAL FRAMEWORK

### 2.1 Model of Information System Success Delone and Mclean

Information system success is considered

critical in the field of information systems [12] . According to Delone and McLean, measurement of success is important to be able to know the value of the steps taken in the management of information systems and investment in information systems [2].

Investment in information systems is generally carried out in large numbers so that the organization wants to know whether these investments have good results for the organization [13]. The effectiveness of a system depends on many factors such as organization, environment and people who use it [5]. One of the frameworks used to measure information system success is Delone and Mclean Information Systems Success Model [6]. This model was proposed in after Delone and McLean reviewed the published research results regarding information systems, until finally they identified 6 independent variables in measuring the success of information systems, namely system quality, information quality, use, user satisfaction, individual impact and organizational impact [4].

In its development, Delone and Mclean's information system success model experienced improvements by adding service quality and net benefits as a substitute for individual impact and organizational impact.
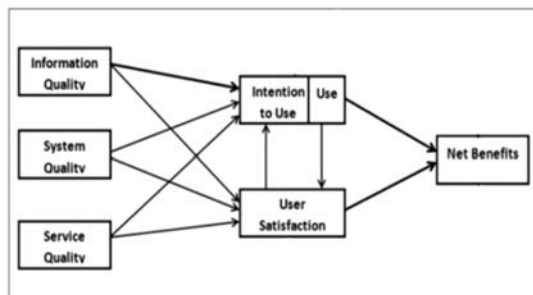


*Figure 2: Information System Success Model for Delone and Mclean* [7]

## 2.2 System Quality

System quality is a characteristic of the information inherent in the system itself. System quality means the quality of a combination of hardware and software in information systems [6]. Shows that the system quality has a positive effect on user satisfaction [15]. The quality of e-filling systems can affect user satisfaction. If the high-quality e-filling system includes easy to use, fast, reliable, flexible, and secure access to protect user data, the e-filling system user will be satisfied. This statement is in accordance with DeLone and McLean [6]. studies that system quality can affect user satisfaction.

The quality of the system has a positive effect on  use. A good quality e-filling system will affect

system usage. If the quality of the e-filling system is reliable, the user will repeat the use of the e-filling system in the future [18]. The results of a similar study were also shown by Wahyuni [14].

In contrast, [19] stated that system quality does not become a good predictor of the construct intensity of SIMAWEB use and user satisfaction, because SIMAWEB use is mandatory (there is no other choice), this statement is consistent with research that system quality does not affect the intensity of users [17].

## 2.3 Information Quality

Information quality refers to the output of information systems, this concerns the value, benefits, relevance, and urgency of the information produced [10]. Purwanto  shows that information quality influences user satisfaction [21]. information quality has a positive  effect on user satisfaction [22]. The results of this study are supported by research show that the quality of information does not significantly influence user satisfaction [19]  .

Information quality has a positive effect on use [15]. This result is consistent with the research conducted by Subramanian [26]. The results of other studies that showed no significant influence between the quality of information and use were [20].

## 2.4 Service Quality

Service quality as a comparison of customer expectations with perceptions of the real services they receive. According to Delone and Mclean [7] there are three components that affect service quality, namely assurance, namely quality assurance provided by the system, empathy (system empathy), which is system concern for users, system responsiveness, namely the quality of the system's response to action done by the user

## 2.5 Use

The use of the system is a person's behavior in using the system. The use of this information system shows the decision to use the information system by users in completing user tasks [24]. In the Delone and Mclean success model it is assumed that the quality of information systems and quality of information can affect the use of information systems . If the quality of the system and the quality of information produced by the system are getting better, then user satisfaction will tend to increase, so that the intensity of system usage will increase.

The use of the system must precede user satisfaction in terms of the process, but positive experience with the use of the system will encourage greater user satisfaction in terms of causal [25]. According to Wang and Liao show that system use has a positive influence on net benefits. Almuatairi and Subramanian [26], and show that there is a

positive relationship between use and individual impact [17].

## 2.6 User Satisfaction

User satisfaction is a whole evaluation of user experience in using information systems and potential impacts of information systems. User satisfaction can be connected with the perception of usefulness and user attitudes towards information systems that are influenced by personal characteristics [16].

Information system that can meet user needs will increase user satisfaction[17]. User satisfaction has a positive impact on individuals and organizations [14]. The use of SIMDA makes it easier and faster for local governments or SKPD to prepare budgets, administer and report or financial accountability, so that they make decisions for users and have a positive impact on the organization [9].

## 2.7 Net Benefits

The impact of information has increased not only the impact on individual users and organizations, but the impact has been on user groups, between organizations, consumers, suppliers, social and even to the State [28]. Because of the many kinds of impacts, Delone and Mclean propose to name all benefits as a single benefit called net benefits [7].

Individual impact is the influence of the existence and use of information systems on the quality of individual user performance. Individual impact is the influence of the existence and use of information systems on performance, decision making, and the degree of learning of individuals in the organization[19].

## 2.8 The Unified of Acceptance and Use of Technology (UTAUT)

The Unified of Acceptance and Use of Technology (UTAUT) is one of the newest technology acceptance models developed by Venkatesh, Morris and Davis [27].

Below are the main variables found in the UTAUT model are:

- Performance Expectancy: The level of measure that a person believes when using technology will help him solve various problems.
- Effort Expectancy: A level of measurement where there is ease in using the system.
- Social Influence: The degree to which an individual feels that people who are important to him believe he should use a new system.
- Facilitating Conditions: The degree to which an individual is against the availability of technical and organizational infrastructure (resources) to support the use of the system.

## 2.9 Connection of the DeLone and McLean Model to UTAUT

The Delone and Mclean model is a wll-known information system (IS) model to assess the success of IS. Based on several meta-analysis studies of the Delone and Mclean model, it has been revealed that some relationships in the construct are not significant. Thus, the construct validity is questionable and may decrease predictive power. A thorough literature review has been carried out to solve the theoretical concepts underlying the Delone and Mclean model. Integration of UTAUT into the Delone and Mclean model is requirerd to provide the appropriate antecedents for intention to predict behavioral intentions (BI). Based on these findings, PU, PE, EF and SI are integrated into the Delone and Mclean model as an additional antecedent for intention to use.

## RESEARCH METHODOLOGY

### 3.1 Framework

1. Identification of Research Objects and Formulation of Problems Identification was carried out at KOMINFO. Observation of the object of research, namely the portal system used by internal parties to support activities and daily activities related to the work of each work unit.
2. Preliminary Data Collection Data collection was done by using literature studies and previous research related to this case study, in order to be used as a reference, background and problem formulation.
3. Analysis of Variables and Measurement Indicators Analysis of variables and indicators of measurement was collected from the previous studies in order to get the right and tested measuring instrument.
4. Preparation of Questionnaires Preparation of questionnaires based on indicators that had been previously set. For the purpose of certainty, there is a validity test and a reliability test along with questions in the questionnaire.
5. Collection of Questionnaires Data and Data Analysis. The results of questionnaire data were then analyzed by processing quantitative data using statistical calculations. The analysis used was regression analysis.
6. The results of the analysis The results of the analysis carried out can determined the success of the information system based on the Delone and McLean model which consists of information quality, system quality, service quality, use, user satisfaction and net benefits.

7. Conclusion and Recommendation, This section explains the conclusions obtained from the answers to existing problems so that they are used to improve and enhance the KOMINFO Portal system, and can also serve as a reference for the development of other information systems in the future

### 3.2 Research Model and Hypothesis

In this study, the model used is the Delone and McLean model which has been updated using variable information quality, system quality, service quality, use, user satisfaction and net benefits.
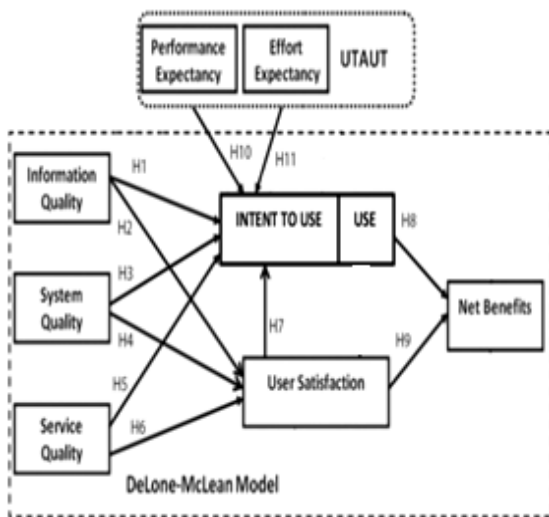
*Figure 3: Research Model and Hypothesis*

## 4.  RESULTS AND DISCUSSION

### 4.1 Respondent Identification

Respondents in the study were the employees at the Communication and Information Center specifically at the head office, and based on the collected questionnaires, the demographic data of respondents were obtained consisting of gender, age, level of education, worker status and income. In detail, the demographic data of respondents is as follows..

1. Group Demographic according to the gender

Based on gender, the demographics were divided into two: Men and Women. The first trial was distributed to 50 respondents. The male group consisted of 26 respondents or 52% and the female group consisted of 24 respondents or 48%. Then it was then re-tested with 356 respondents. The male group consisted of 179 respondents or 51% and the female group as many as 177 respondents or 49%. Group demographics based on sex can be seen in Figure 4.
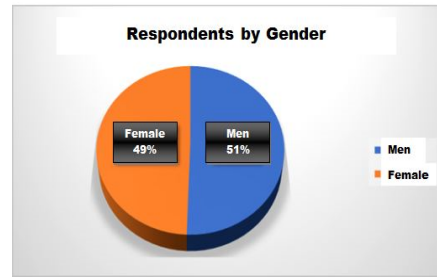
*Figure 4: Group demographics based on sex*

2.    Group Demographic according to the respondent age

Based on age, the demographics were divided into five parts: <20 years, 20-30 years, 30-40 years, 41-50 years, and> 50 years. As with the above, the test began with 50 respondents. The first group (> 20) consisted of 11 respondents or 22% and the second group (20-30) as many as 5 respondents or 10% and the third group (30-40) as many as 21 respondents or 42%. Then the fourth group (41-50) consisted of 4 respondents or 8% and the last was the fifth group (50) consisting of 9 respondents or 18%. And then with 356 respondents with the results of the first group (> 20) consisting of 75 respondents or 21% and the second group (20-30) as many as 73 respondents or 20 and the third group (30-40) as many as 156 respondents or 44%. Then the fourth group (41-50) consisted of 28 respondents or 8% and the last was the fifth group (50) consisting of 24 respondents or 7%. Group demographics by age can be seen in  Figure 5.
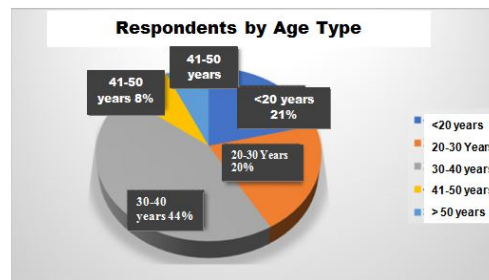
*Figure 5:* Group Demographic according to the Age

3.    Group Demographic according to the Educational Level

Based on the level of Education, the demographics were divided into five parts: D3, S1, S2, S3, and others. Beginning with 50 respondents with the results of the first group (D3) consisting of 5 respondents or 10% and the second group (S1) as many as 37 respondents or 74%. Then the third

group (S2) consisted of 4 respondents or 8% and the fourth group (S3) consisted of 0 respondents then the last was the fifth group (Others) consisting of 4 respondents or 8%. Followed by 356 respondents with the results of the first group (D3) consisting of 34 respondents or 7% and the second group (S1) as many as 280 respondents or 81%. Then the third group (S2) consisted of 32 respondents or 9% and the fourth group (S3) consisted of 4 respondents or 1% then the last was the fifth group (Others) consisting of 6 respondents or 2%. Group demographics based on education levels can be seen in Figure 6.
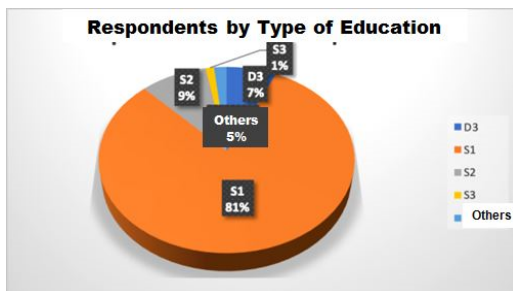


*Figure 6: Group Demographic according to the Type of Educational Level*

4.      Group Demographic According to the Type of Task
Based on the type of work available at Kominfo, the demographics are divided into four parts: PNS, ASN, PPNPN and Others. 50 respondents consisted of PNS groups consisting of 20 respondents or 40% and ASN groups of 2 respondents or 4%. Then the PPNPN group was 56% and the other groups did not exist. Furthermore, for 356 respondents the PNS group consisted of 140 respondents or 38% and the ASN group as many as 75 respondents or 20%. Then the PPNPN group as many as 136 respondents or 37% and the other group 18 respondents or 5%. Group demographics based on type of work can be seen in Figure 7.
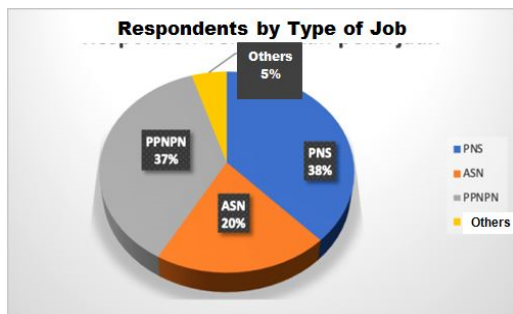


*Figure 7: Group Demographic according to the Type of Task*

5.      Group Demographic According to the Service Period
Based on income, the demographics were divided into four: <1 year, 1-5 years, 6-10 years and over 10 years. 50 respondents produced the first group (<1 year) consisting of 3 respondents or 6% and the second group (1-5 years) as many as 30 respondents or 60%. Then the third group (6-10 years) as many as 15 respondents or 30% and the last group four (> 10 years) as many as 2 respondents or 4%. And for 356 respondents produced the first group (<1 year) consisting of 128 respondents or 36% and the second group (1-5 years) as many as 137 respondents or 39%. Then the third group (6-10 years) as many as 83 respondents or 23% and the last group four (> 10 years) as many as 8 respondents or 2%. Group demographics based on service period can be seen in figure 8.
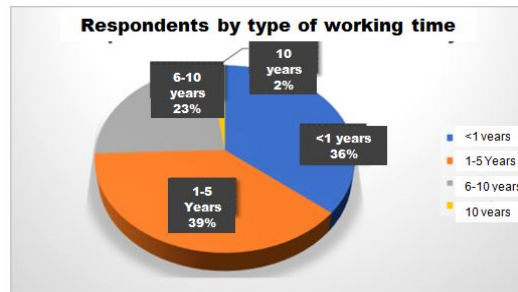


*Figure 8: Group Demographic According to the Service Period*

**4.2 Outer Model**
    The outer model defines the relationship between latent variables and the indicators, whether to be reflective or formative. Evaluation of the measurement model is done by testing convergent validity. Convergent validity is assessed by looking at the value of the loading factor of each indicator against the latent variable. The indicator is said to be valid if the value of the loading factor for latent variables is greater or equal to 0.7.

*Figure 9. Output Path Diagram Algoritma PLS*

The following is the value of the loading factor in the first PLS algorithm test

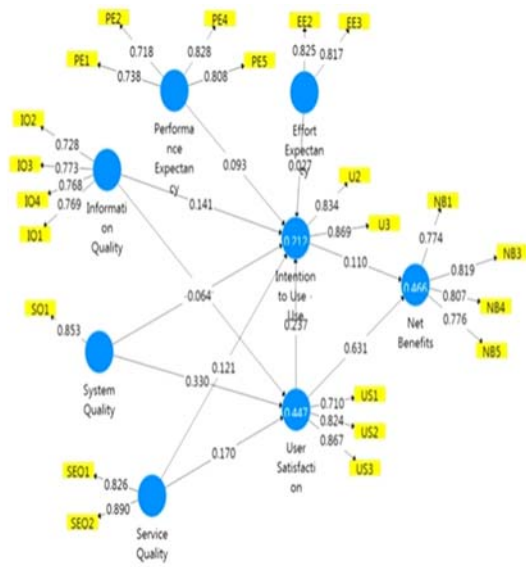Table 1: Value of Loading Factor Indicator Test

| Variable | Indikator | LF | Description |
|---|---|---|---|
| Information Quality | IQ1 | 0.769 | Valid |
| | IQ2 | 0.728 | Valid |
| | IQ3 | 0.773 | Valid |
| | IQ4 | 0.768 | Valid |
| System Quality | SQ1 | 0.853 | Valid |
| Service Quality | SEQ1 | 0.826 | Valid |
| | SEQ2 | 0.890 | Valid |
| Use | U2 | 0.834 | Valid |
| | U3 | 0.869 | Valid |
| Net Benefit | NB1 | 0.774 | Valid |
| | NB3 | 0.819 | Valid |
| | NB4 | 0.807 | Valid |
| | NB5 | 0.776 | Valid |
| User Satisfaction | US1 | 0.710 | Valid |
| | US2 | 0.824 | Valid |
| | US3 | 0.867 | Valid |
| Performance Expectancy | PE1 | 0.738 | Valid |
| | PE2 | 0.718 | Valid |
| | PE4 | 0.828 | Valid |
| | PE5 | 0.808 | Valid |
| Effort Expectancy | EE2 | 0.825 | Valid |
| | EE3 | 0.817 | Valid |

Then, reliability testing on latent variables is carried out by internal consistent reliability testing, if the value is above 0.7 then it is considered for having been fulfilled.

According to the value of Average Variance

Extracted (AVE), convergent validity is said to be good if the AVE value is greater or equal to 0.5. The following table shows the results of testing validity at the level of latent variables based on the value of AVE.

Table 2: AVE Value of Each Latent Variable

| Latent variable | AVE |
|---|---|
| Information Quality | 0.577 |
| System Quality | 0.518 |
| Service Quality | 0.605 |
| Use | 0.726 |
| User Satisfaction | 0.645 |
| Net Benefit | 0.573 |
| Performance Expectancy | 0.520 |
| Effort Expectancy | 0.673 |

Based on the results above, convergent validity has been fulfilled because it has an AVE value greater than 0.5.

Then reliability testing on latent variables is done by testing internal consistent reliability as indicated by the composite reliability value of each latent variable in PLS. if the value is more or equal to 0.7 then composite reliability is fulfilled. The following table shows the composite reliability value of the measurement model..

Table 3: Latent Composite Reliability Variable Value

| Latent variable | Composite Reliability |
|---|---|
| Information Quality | 0.845 |
| System Quality | 0.759 |
| Service Quality | 0.817 |
| Use | 0.841 |
| User Satisfaction | 0.844 |
| Net Benefit | 0.869 |
| Performance Expectancy | 0.825 |
| Effort Expectancy | 0.805 |

Based on the results above, the latent variable has been fulfilled because it has a Composite Reliability value greater than 0.7.

Then discriminant validity testing with cross loading shows the correlation between each indicator against all latent variables in the study.

*Figure 10. Output Bootstrapping Diagram*

### 4.3 Structural Model Evaluation (Inner Model)

The measurement model defines the relationship between latent variables and the indicators, whether to be reflective or formative. Evaluation of the measurement model is done by testing convergent validity. Convergent validity is assessed by looking at the value of the loading factor of each indicator against the latent variable. The indicator is said to be valid if the value of the loading factor for latent variables is greater or equal to 0.7.

Evaluation of structural models is done by calculating t-statistics of path coefficients and R-square values at significance level (alpha) 0.05 with a two-tailed test. T-statistics are greater than t-table, meaning that latent variables have a significant effect on other latent variables.

From the results of testing in the t-statistics column above, it shows that the relationship between IQ to U, IQ to US, U to NB, SEQ to US, SQ to US, US to U, and US to NB is said to be related because it has t-statistics above 1.96. while EE to U, PE to U, SEQ to U, and SQ to U are said to be unrelated because they have a t-statistics value below 1.96. Based on the results of testing the relationship between these variables obtained the following equation

### 4.4 Results of Hypotheses testing

The hypothesis tested is the presence or absence of significant effects of exogenous variables with endogenous variables. If there is no significant influence then it is formulated with the null hypothesis (Ho), which is a hypothesis being expected to be rejected. If both of these variables are hypothesized to have a significant effect then

formulated in the alternative hypothesis (Ha), which is the hypothesis being expected to be accepted.

1. **H1: Information quality (IQ) has an effect on usage intention (USE)**

    Based on the table above it is known that the relationship between Information Quality (IQ) to Intent to Use (USE) has a path coefficient value of 0.141 with a t statistic of 1994. because the value of t statistic (1994)> t table (1.96) then H1 is accepted. This suggests that the quality of information has a significant effect on the intention to use the portal. While the path coefficient of 0.141 is positive, meaning that the quality of information increases, the intention to use also increases.

2. **H2: Information quality (IQ) affects user satisfaction (US)**

    Based on the above table it is known that the relationship between Information Quality (IQ) to User Satisfaction (US) has a path coefficient value of 0.064 with a t statistic of 6.542. because the value of t statistic (6,542)> t table (1.96) then H2 is accepted. This suggests that the quality of information has a significant effect on user satisfaction with the portal. While the path coefficient of 0.064 is positive, meaning that the quality of information increases, user satisfaction also increases.

3. **H3: System quality (SQ) affects usage intention (USE)**

    Based on the above table it is known that the relationship between System Quality (SQ) to Intent to Use (USE) has a path coefficient value of -0.064 with a t statistic of 0.974. because the value of t statistic (0.974) <t table (1.96) then H3 is rejected. This points out that the quality of the system has no significant effect on the intention to use the portal. While the path coefficient of -0.064 has a negative sign, meaning the quality of the system decreases, so the usage intention also decreases.

4. **H4: System quality (SQ) affects user satisfaction (US)**

    Based on the above table it is known that the relationship between System Quality (SQ) to User Satisfaction (US) has a path coefficient value of 0.330 with a t statistic of 0.974. because the value of t statistic (0.974) <t table (1.96) then H4 is rejected. This indicates that the quality of the system does not have a significant effect on the satisfaction of portal users. While the path coefficient of 0.330 is positive, meaning that the quality of the system increases, user satisfaction also increases.

5. **H5: Service quality (SEQ) has an effect on**

**intention to use (USE)**

Based on the above table it is known that the relationship between Service Quality (SEQ) to Intent to Use (USE) has a path coefficient value of 0.121 with a t statistic of 1.532. because the value of t statistic (1,532) <t table (1.96) then H5 is rejected. This points out that service quality has no significant effect on the intention to use the portal. While the path coefficient of 0.121 is positive, meaning that the quality of service increases, the intention to use also increases.

6. **H6: Service Quality (SEQ) affects user satisfaction (US)**

According to the above table it is known that the relationship between Service Quality (SEQ) to User Satisfaction (US) has a path coefficient value of 0.170 with a t statistic of 2.848. because the value of t statistic (2.848)> t table (1.96), H6 is accepted. This points out that Service Quality has a significant effect on the satisfaction of using the portal. While the path coefficient of 0.170 is positive, meaning that service quality increases, usage satisfaction also increases.

7. **H7: user satisfaction (US) has an effect on usage intention (USE)**

Based on the table above it is known that the relationship between User Satisfaction (US) to Intent to Use (USE) has a path coefficient value of 0.237 with a t statistic of 2.929. because the value of t statistic (2,929)> t table (1.96) then H7 is accepted. This indicates that user satisfaction has a significant effect on the intention to use the portal. While the path coefficient of 0.237 is positive, meaning that user satisfaction increases, the intention to use also increases.

8. **H8: use intention (USE) has an effect on net benefits (NB)**

Based on the above table it is known that the relationship between Intent to Use (USE) to net profit (NB) has a path coefficient value of 0.110 with a t statistic of 2.109. because the value of t statistic (2.109)> t table (1.96) then H8 is accepted. This indicates that intention to use has a significant effect on net benefits. While the path coefficient of 0.237 is positive, meaning that the intention to use increases, the net benefits also increase.

9. **H9: user satisfaction (US) has an effect on Net Benefits (NB)**

Based on the above table it is known that the relationship between User Satisfaction (US) to Net Benefit (NB) has a path coefficient value

of 0.631 with a t statistic of 6.439. because the value of t statistic (6.439)> t table (1.96) then H9 is accepted. This indicates that usage satisfaction has a significant effect on net benefits. While the path coefficient of 0.631 is positive, meaning that user satisfaction increases, the net benefits also increase.

10. **H10: Performance expectations (PE) affect the intention to use (USE)**

Based on the above table it is known that the relationship between Performance Expectation (PE) to Intent to Use (USE) has a path coefficient value of 0.093 with a t statistic of 1.034. because the value of t statistic (1,034) <t table (1.96) then H10 is rejected. This points out that performance expectations do not affect the intention to use the portal. While the path coefficient of 0.093 is positive, meaning that performance increases, the intention to use also increases.

11. **H11: Effort expectations (EE) affect the intention to use (USE)**

Based on the above table it is known that the relationship between Effort Expectation (EE) to Intent to Use (USE) has a path coefficient value of 0.027 with a t statistic of 0.400. because the value of t statistic (0.400) <t table (1.96), H11 is rejected. This point out that business expectations have no significant effect on the intention to use portals. While the path coefficient of 0.027 is positive, meaning that business expectations increase, the intention to use also increases.

Where to calculate t table using the provision of significant level = 0.05, which is 1.96. Based on previous research, six hypotheses were proposed. The following table shows the hypotheses accepted and rejected. Based on the test results of the structural model at significance level 0.05 using a two-tailed test.

Table 4: Hypothesis Test Results

| Inter-Table Relations | Hypothesis | Original Sample (O) | T Statistik (|O/STEER|) | T table | Description |
|---|---|---|---|---|---|
| IQ → USE | H1 | 0.141 | 1.994 | 1,96 | Accepted |
| IQ → US | H2 | 0.064 | 6.542 | 1,96 | Accepted |
| SQ → USE | H3 | -0.064 | 0.974 | 1,96 | Rejected |
| SQ → US | H4 | 0.330 | 0.974 | 1,96 | Rejected |
| SEQ → USE | H5 | 0.121 | 1.532 | 1,96 | Rejected |

| Inter-Table Relations | Hypothesis | Original Sample (O) | T Statistik (\|O/STEER\|) | T table | Description |
|---|---|---|---|---|---|
| SEQ → US | H6 | 0.170 | 2.848 | 1,96 | Accepted |
| US → USE | H7 | 0.237 | 2.929 | 1,96 | Accepted |
| USE → NB | H8 | 0.110 | 2.109 | 1,96 | Accepted |
| US → NB | H9 | 0.631 | 6.439 | 1,96 | Accepted |
| PE → USE | H10 | 0.093 | 1.034 | 1,96 | Rejected |
| EE → USE | H11 | 0.027 | 0.400 | 1,96 | Rejected |

### 4.5 Implications

The managerial implications that can be made by internal parties of the Ministry of Communication and Information about the Communication and Information Portal as an internal activity information system at the Ministry of Communication and Information. Based on the research there is one negative value, namely Service Quality towards intention to use with a value of -0.064.

To further increase user satisfaction, the quality of service must also be improved. And there will be more and more users who will use this portal. This can be used as an indicator that the portal system is successful. The following is an explanation of the implications that occur based on Delone and McLean's theory:

• Increased number of staff who access the portal due to the increased quality of information contained in the portal. So that the staff relies on the information contained in the portal to find out information and about the news that happened at Kominfo.
• The more satisfied portal users, then they also advise other staff to use the portal because it is reliable and very satisfied using it. All service requests will be entered into the ticket and there is an SLA.

The more users access and also the addition of features, the more data will be collected, so it is recommended to have regular data backup. And also to avoid overload like the slow response of the web Portal that will affect the usage experience, it is advisable to always monitor server performance. If you have touched the full performance, it is necessary to upgrade the server.

### 5. CONCLUSION

Based on the results of the analysis of the success factors that influence the information system, it can be concluded that the success of information systems is strongly influenced by several factors, where these factors are very dependent on the conditions and environment in which the system is implemented. To find out which factors are the most dominant, a factor analysis is needed by first submitting a number of hypotheses on factors that are theoretically considered to influence the success of the system.

Data processing results show that 6 out of 11 hypotheses are considered to be proven, namely that user satisfaction is strongly influenced by second main factors as follows: information quality, service quality, and net benefits influenced by Intention to use and user satisfaction., and the remaining any 5 hypothesis are rejected. System quality to User satisfaction, System quality, Service quality, performance expectancy, Effort Expectancy to Intention to Use.

The limitation in this study is the reference to build a research model that is still dominant using the Delone and McLean and UTAUT model variable approaches, in subsequent studies can use different variables that use many references that are more focused on the successful implementation of the system so that it is expected to add research references in the field of systems information in the development of a system success model, so that it can be used as further research.

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