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Analysis of Implementation "Jogja Istimewa" Based on Mobile Application Using UTAUT2 Model in Development Jogja Smart Province

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Abstract

This paper explores the Jogja Istimewa Application. This application is applied due to the development of Smart Province in the Special Region of Yogyakarta, Indonesia. Provinces with a high level of mobility require the government to be able to provide services quickly, precisely, and accurately. For this reason, researchers try to dig deeper into the extent to which the application can be accepted by the local community, both for tourists and students. Using the UTAUT2 method, are 300 questionnaires were distributed in the Special Region of Yogyakarta using a non-probability sampling technique combined using the snowball sampling method. The results show that facilitating conditions and price value are the components that have the highest impact on people's intention to use the application. Whereas behavioral intention influences on behavioral use because it has an essential role in fulfilling the behavior of the community or user to reuse the mobile-based Jogja Istimewa Application.

Keywords: Jogja Istimewa Application, Smart Province, UTAUT2.

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1. Introduction

Smart City is a city planning concepts by utilizing the technological developments that will make life more comfortable with a high level of efficiency and effectiveness [1]. Smart City is also able to support the process of city development to be more anticipatory, innovative, and competitive so that it can provide a sense of comfort and more structured [3].

Seeing the enormous potential of the smart city sparked a lot of big countries in the world to implement such a system, it aims to facilitate government control, and regulation of the city was more structured. Seeing the development of these technologies in Indonesia also begins to implement smart cities both in terms of transportation, community and government, and many other sectors. Several cities in Indonesia have started to implement a smart city. One of them is Yogyakarta. Because Yogyakarta is a center of Indonesian education and tourist city, it is necessary to apply a smart city because of the other side. In addition to the objectives continue, the study of Yogyakarta is also a destination by foreign tourists. Uniquely, in Yogyakarta is not only a smart city that is run by the government, but the smart province was the one being developed by Yogyakarta. Therefore, the government of the Special Region of Yogyakarta through the Department of Communication and Information Technology tries to implement a mobile-based smart province application, that is JOGJA ISTIMEWA, making it easier for people and migrants to access information from

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the education sector, tourism and up-to-date information that occurs in Yogyakarta.
Based on this background, the author tries to review more in related application JOGJA ISTIMEWA application. So that application can be following with the conditions and needs of users. To the authors attempted to formulate the problem by the associated constraints, application implementation JOGJA ISTIMEWA are:

a. Is the public or the user having the intention to adopt or to use an application Jogja Istimewa?
b. What are the factors that influence the behavior of the application users Jogja Istimewa?
c. What are the factors that become the central pillar in the successful implementation of the application Jogja Istimewa?
d. Is the intention of the user for using the application of Jogja Istimewa has a crucial role in meeting people's behavior or the user to use the app again?

The purpose of this paper is, as follows:
a. Helping the government in conducting socialization related to Mobile-based Jogja Istimewa applications.
b. Know the value of the level of satisfaction of the community or users about the Jogja Istimewa application.
c. Find out how easily the Jogja Istimewa application is accessed.
d. Find out how much influence the use of the Jogja Istimewa application has on people or users.

2. Literature Review

2.1. Research Legacy

In this study, the researchers also tried to describe previous research related to the successful implementation of smart city applications and related methods are used. In a study conducted by Francesco Paolo Appio and his colleagues revealed that using smart city increase mobility and improve the local economy, data transparency, efficiency and effectiveness and improve resource management[2], In that study, researchers tried to understand how to recognize smart city ecosystem in terms of both technology and challenges in its implementation.
In a study conducted by Harish Kumar and his friends, they try to find solutions to overcome the obstacles in the implementation of a smart city. The study was conducted with the aim to assist the government in determining policies, the provision of services, the development of the city, as well as increase knowledge in the development of smart city[3].
In a study conducted by Madarfuksa in Latvia, researchers try to apply methods for analyzing UTAUT2 mobile and internet technology. In that study, researchers sought to explain based on several main pillars of UTAUT2, namely Performance, Effort, Facilitating conditions, technological support price, and internet experience. From those results, the researchers concluded that the use of mobile and internet technology is new and has a positive long-term impact[4].
In a study conducted in Jordan on the application of mobile banking using UTAUT2 revealed that there are several factors that influence the successful application of the mobile banking application in Jordan, namely facility conditions, social influence, effort, hedonic motivation, price, and in a study of 343 respondents stated that in the application mobile banking has a future prospect that really needs to be well studied so that it is truly in accordance with the conditions of the needs in the field [12].

2.2. Research Model

Based on previous studies described above, researchers try to assess the framework of this study based on the literature used in this study [5]. This method is used aims to determine the factors that have an essential role in achieving Jogja Istimewa upon the successful implementation of mobile-based applications. The variables used in this research are Expectancy Performance, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Value, and Habit. It runs by the classification variables of age, gender, the experience of using the application, and willingness to use the form. Here is a figure of research models:

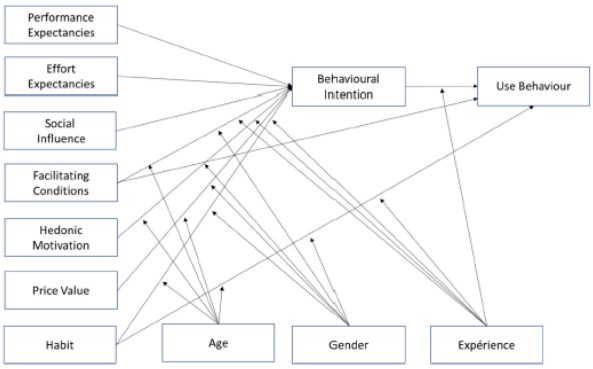

Figure 1. Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2)

2.3. Hypotheses

In this study, the constructs used are:

2.3.1 Performance Expectancy

Performance expectancy aims to measure the level of confidence that the applications that are used to improve the performance and productivity of the work which will impact on the user desires to re-use information technology available[5],

2.3.2 Effort Expectancy

According to Venkatesh Effort Expectancy is defined as "the extent to which the ease of use of the system[6],

3.3. Hypothesis Test Results

The statistical testing process can be seen in Table 4 below. From the data processing is well known that there is a relationship with the CR on show values above 1.96 for CR and below 0.05 for the value of P [15], thus it can be said that:

Table 4. Hypothesis Test Results

No.	hypothesis	estimate	CR	P	Limit	Information
1	*performance expectancy* effect on behavioral intention	0,154	2,604	0.009	0.05	There is an effect
2	*effort expectancies* effect on behavioral intention	0.081	1,975	0,048	0.05	There is an effect
3	*social Influence* effect on behavioral intention	0,296	2,071	0.038	0.05	There is an effect
4	*facilitating condition* effect on behavioral intention	0,244	3.187	0,001	0.05	There is an effect
5	*hedonic motivation* effect on behavioral intention	-0.060	-, 0.969	0.332	0.05	No effect
6	*price value* effect on behavioral intention	.543	3.408	0,000	0.05	There is an effect
7	*Habit* effect on behavioral intention	-0.012	-0.131	0.895	0.05	No effect
8	*facilitating condition* affect the use behavioral	0,010	.111	0.911	0.05	No effect
9	*Habit* affect the use behavioral	0,365	4,180	0,000	0.05	There is an effect
10	*Behavioral intention* affect the use behavioral	0.522	4.729	0,000	0.05	There is an effect

Based on the above table can be explained the relationship between variables:

3.3.1 Effect of performance expectancy on behavioral intention

Parameter estimation of the standardized regression weight coefficient obtained at 0,154 and 2,604 CR value. Testing the relationship between both variables indicate a probability value of 0.009 (p <0.05), so it can be declared if there is influence between performance expectancy with behavioral intention.

3.3.2 Effort expectancies influence on behavioral intention

Parameter estimation of the standardized regression weight coefficient obtained at 0.081 and 1.975 CR value. Testing the relationship between both variables indicates a probability value of 0,048 (p <0.05), so it can be declared if there is influence between effort expectancies with behavioral intention.

3.3.3 The influence of social influences on behavioral intention

Parameter estimation of the standardized regression weight coefficient obtained at 0,296 and 2,071 CR value. Testing the relationship between both variables indicate a probability value of 0.038 (p <0.05), so it can be declared if there is influence between social influences with behavioral intention.

3.3.4 Facilitating influence on behavioral intention condition

Parameter estimation of the standardized regression weight coefficient obtained at 0.244 and 3.187 CR value. Testing the relationship between both variables indicate a probability value of 0.001 (p <0.05), so it can be declared if there is influence between facilitating condition with behavioral intention.

3.3.5 The influence of hedonic motivation to behavioral intention

Parameter estimation of the standardized regression weight coefficient obtained at -0.060 and -0.969 CR value. Testing the relationship between both variables indicate a probability value of 0.332 (p> 0.05), so it can be declared if there is no influence between hedonic motivation with behavioral intention.

3.3.6 The influence of the price value of the behavioral intention

Parameter estimation of the standardized regression weight coefficient obtained at 0.543 and 3.408 CR value. Testing the relationship between both variables indicate a probability value of 0.000 (p <0.05), so it can be declared if there is influence between the price value with behavioral intention.

3.3.7 Influence on behavioral intention habit

Parameter estimation of the standardized regression weight coefficient obtained at -0.012 and -0.131 CR value. Testing the relationship between both variables indicate a probability value of 0.895 (p> 0.05), so it can be declared if there is no influence of habit with behavioral intention.

3.3.8 Effect of facilitating condition to using behavior

Parameter estimation of the standardized regression weight coefficient obtained at 0.010 and 0.111 CR value. Testing the relationship between both variables indicate a probability value of 0.911 (p> 0.05), so it can be declared if there is no influence between facilitating condition with user behavior.

3.3.9 The influence of habit to use behavior

Parameter estimation of the standardized regression weight coefficient obtained at 0,365 and 4,180 CR value. Testing the relationship between both variables indicates a probability value of 0.000 (p <0.05), so it can be declared if there is the influence of the habit of user behavior.

3.3.10 Effect of behavioral intention to use behavior

Parameter estimation of the standardized regression weight coefficient obtained at 0.522 and 4.729 CR value. Testing the relationship between both variables indicate a probability value of 0.000 (p <0.05), so it can be declared if there is influence between behavioral intention to use behavior.

4. Conclusion

a. In the hypothesis, there are four components related to the behavioral purpose which are: performance

expectancy, effort expectancy, social influence, and facilitating condition have a positive impact on society and the increasing desire to reuse the mobile-based application Jogja Istimewa.

b. In the hypothesis, three components related to using behavioral which are: facilitating condition, habits, and behavioral intention. Habits and behavioral intention have a positive influence on the behavior of the application users Jogja Istimewa. Still, the facilitation condition does not affect the user of the response of the mobile-based application Jogja Istimewa.

c. In these studies, show the facilitating condition and price value is the component that gives the highest impact on the intentions society or users to reuse the mobile-based application Jogja Istimewa.

d. The value of behavioral intention is positive. It means affecting use behavioral because it has an essential role in meeting people's behavior or the user to reuse the mobile-based application Jogja Istimewa.

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