

CHAPTER I

INTRODUCTION

1.1 Background

An electronic ticket serves as a symbol that allows carriers of the electronic ticket to enjoy the same services as a carrier of a disposable ticket (Payeras-capell & Bondia-barcel, 2016). Unlike a paper ticket, an electronic ticket allows for the collection of data which includes information on the sale and also serves as documentation and proof without a physical ticket (Qteishat, Alshibly, & Alma'aitah, 2014). An electronic ticket serves as a contract between the user and the provider of the technology (Mut-Puigserver, Payeras-Capellà, Ferrer-Gomila, Vives-Guasch, & Castellà-Roca, 2012). Aside from usage convenience, users of electronic tickets can enjoy perks and incentives, such as flexible prices, provided to users by the e-ticket providers. (Kerschbaum & Gudymenko, 2013). While the e-ticket systems bring great convenience to customers, for transit systems, e-tickets allow providers to collect huge amounts of information about how users interact and utilize the transportation. This gives the providers massive insight on how to control and improve the overall system. (Mezghani, 2008).

Electronic money has been implemented in many Bus Rapid Transit systems for various reasons. Consumers benefit from the use of payment methods that are inexpensive, rapid, convenient, accessible and reliable, with an acceptable level of risks (Dehghan & Haghighi, 2015).

Electronic money is a method of pre-paid money that exists as a balance and joins debit cards and credit cards as a useful method of payment (Wulandari & Soseco, 2016). Electronic money exists as the transfer of information from one variable to another variable within a process or stream processing instead of relying the transaction of physical money. Such programming paradigms benefit consumers because they eliminate the need to process cash transactions at all locations by streamlining how payments are made (Zhang, 2011). E-money is a new technology that is being utilized in Indonesia to simplify payments and transactions. The scope of this technology and the wide adoption of it by many parts of the world is remarkable. Indonesia has been using e-money since 2007 (Wulandari & Soseco, 2016).

Bus Rapid Transit (BRT) is based on metro and tram bus systems. It follows new public transport systems in the way that passengers must purchase their ticket before entering and are required to wait at shelters for the bus. The BRT has many advantages over rail transport. Some of these advantages include implementation efficiency and less expensive overall costs. A BRT can be initiated in one to three years times. Where implemented, BRT has become a reliable and convenient form of urban public transportation in developed cities (Mallqui & Pojani, 2016).

Trans Jogja is the Bus Rapid Transit (BRT) system currently in use in the city of Yogyakarta, Indonesia. It was initiated by the Government of Yogyakarta and is the first bus transportation that uses a Smart card for ticketing in the city of Yogyakarta. This system is called a Smart Mass Transit System. Yogyakarta (Daerah Istimewa Yogyakarta, DIY) is a special region located on the island of

Java in Indonesia (Dirgahayani, 2013). In a city where the need for public transportation is growing, Trans Jogja serves as a surrogate method of transportation from individual and less organized methods of transport (Dzikrullah, Setiawan, & Sulisty, 2017). Trans Jogja is inexpensive and is beneficial to workers, students and tourists. Once payment has been made passengers can go to all places covered by the Trans Jogja system without additional payment. (Dirgahayani, 2013).

The Unified Theory of Acceptance and Use of Technology (UTAUT) is an attractive model to help understand why and how information systems and technologies (IS/IT) are accepted by users (Khechine, Lakhal, & Ndjambou, 2016). In 2003, based on numerous theoretical models and incorporating a broad range of supporting reasoning, UTAUT was created by Davis, Davis, Venkatesh and Morris, as a method to understand how and why people adopt technology (Hsu, Chen, Chang, & Hsieh, 2014). Using the criteria of, expectancy, effort expectancy, and social influence, the Unified Theory of Acceptance and Use of Technology aims to show how these four areas can predict acceptance (Parameswaran, Kishore, & Li, 2015). UTAUT was integrated with eight models to clarify the intentions of usage, including theory-reasoned action, technology acceptance model, motivation model, model of pc utilization (MPCU), theory planned behavior, combined with TAM and TPB, social cognitive theory (SCT) and innovation diffusion theory (Venkatesh, Morris, Davis, & Davis, 2003). Beyond identifying the various reasons why users accept and adopt IS/IT this framework also helps to predict potential future users (Wasitarini, 2015).

Venkatesh et al identifies four different constructs that serve as the main reasons for why users adopt systems. Performance expectancy is identified as a crucial construct within analysis and in tests is able to best pinpoint and predict the intention of users. (Venkatesh, Morris, Davis, & Davis, 2017). The construct of effort expectancy is related to how much or the lack of effort that is required by users during the process (Alharbi, 2014). The construct of social influence refers to the weights that one person gives to the ideas or notions of others in considering if he or she should adopt or utilize the new methods or system. (Sheng-Chin Yu, Chia-jen Ting, Hsing-Chuan Lu, & Fong-Ling Fu, 2012). The weight given to the idea that the new information system possesses adequate framework and cohesive technological support is the construct facilitating condition (Wong, Teo, & Russo, 2013). There are many different factors that affect how and why new IS/IT is used including the reasons for usage and how the program is used (Bere, 2014). By examining different variables UTAUT, as a model, can identify patterns of adoption and usage among the various cohorts of users including age, gender, experience and degree of usage (Nysveen & Pedersen, 2016). This research is primarily based on and utilizes UTAUT to examine the connection between users and the adoption of electronic money because as a model the Unified Theory of Acceptance and Use Technology has been successful in its ability to guide researchers in understanding how and why information technology is accepted and further allows for the factors which influence these decisions to be investigated (Alharbi, 2014).

Using the aforementioned summary of the problem and its conditions, this investigation probed the intentions of adopting electronic methods of payment using the UTAUT model and additionally researched the reasons for adopting the payment system for the purpose of Trans Jogja.

Based on the conceptual framework above, the hypotheses were developed as follows:

H1a: The relation among independent variable Performance expectancy and dependent variable intention to use Trans Jogja payment system are mitigated by gender of passengers.

H1b: The relation among independent variable Effort expectancy and dependent variable intention to use Trans Jogja payment system are mitigated by gender of passengers.

H1c: The relation among independent variable Social influence and dependent variable intention to use Trans Jogja payment system are mitigated by gender of passengers.

H1d: The relation among independent variable Facilitating condition and dependent variable intention to use Trans Jogja payment system are mitigated by gender of passengers.

H1e: The relation among independent variable Perceived credibility and dependent variable intention to use Trans Jogja payment system are mitigated by gender of passengers.

H2a: The relation among independent variable performance expectancy and dependent variable intention to use Trans Jogja payment system are mitigated by level of education of passengers.

H2b: The relation among dependent variable effort expectancy and dependent variable intention to use Trans Jogja payment system are mitigated by level of education of passengers.

H2c: The relation among independent variable social influence and dependent variable intention to use Trans Jogja payment system are mitigated by level of education of passengers.

H2d: The relation among independent variable facilitating condition and dependent variable intention to use Trans Jogja payment system are mitigated by level of education of passengers.

H2e: The relation among independent variable perceived credibility and dependent variable intention to use Trans Jogja payment systems are mitigated by level of education of passengers.

H3a: The relation among independent variable performance expectancy and dependent variable intention to use Trans Jogja payment system are mitigated by age of passengers.

H3b: The relation among independent variable effort expectancy and dependent variable intention to use Trans Jogja payment system are mitigated by age of passengers.

H3c: The relation among independent variable social influence and dependent variable intention to use Trans Jogja payment system are mitigated by age of passengers.

H3d: The relation among independent variable facilitating condition and dependent variable intention to use Trans Jogja payment system are mitigated by age of passengers.

H3e: The relation among independent variable perceived credibility and dependent variable intention to use Trans Jogja payment system are mitigated by age of passengers.

H4: There are differences at gender, age, and level of education with regards to the desire to utilize the Trans Jogja payment system.

Because of variations in passenger's sex, age, level of schooling, and different roles (E-ticket ,E-money) it is suspected that the various groups have different understanding of UTAUT and how it should be used (Venkatesh et al., 2017), (Sheng-Chin Yu et al., 2012).

H5: There are perception differences at the independent variable performance expectancy among Single Trip, regular common, regular student, E-money

H6: There are differences at the independent variable effort expectancy among Single Trip, regular common, regular student, E-money.

H7: There are perception differences at the independent variable social influence among Single Trip, regular common, regular student, E-money.

H8: There are perception differences at the independent variable facilitating condition among Single Trip, regular common, regular student, E-money.

H9: There are perception differences at the independent variable perceived credibility among Single Trip, regular common, regular student, E-money.

H10: There are differences at the dependent variable intention to use among Single Trip, regular common, regular student, E-money.



1.2 Formulations of the problem

1.2.1 How to analyse user acceptance of Trans Jogja payment system for transaction using UTAUT model?

1.2.2 How to investigate the user intention to use Trans Jogja payment system?

1.3 Scope of problem

1.3.1 Researching about Trans Jogja transportation in Yogyakarta

1.3.2 Consumer respondents who pay with the Trans Jogja payment system

1.3.3 Focus on UTAUT model

1.4 Authenticity of Research

The authenticity of the research possessing the title “**Analysis of User Acceptance of the Trans Jogja Payment System Based on the UTAUT Model: Obtaining the Rider’s Perspective in Yogyakarta, Indonesia**” is completely the work of the author and the results and conclusions of this study are purely a result of the work of the author. The entirety of the information was collected from Trans Jogja riders at the various Trans Jogja bus shelters and at the Department of Transportation office of Daerah Istimewa Yogyakarta, DIY. This is the office that has manages the Trans Jogja payment system in Yogyakarta.

1.5 Research Purpose

The purpose of this study is:

- 1.5.1. To analyse user acceptance of the Trans Jogja payment system and usage methods of payment utilizing the Unified Theory of Acceptance and Use Technology Model (UTAUT).
- 1.5.2. To probe the intentions of users in as they navigate payment to ride Trans Jogja.

1.6 Benefits of Research

Results of this study are expected to use for:

- 1.6.1. Making use of payment system in the task of ground transportation services to the public
- 1.6.2. Being a reference for further research to model collaboration

1.7 Systematics of Research

This research is arranged systematically based on the procedure of writing which has been established by the Graduate University of Atma Jaya Yogyakarta with the following presentation:



CHAPTER I: INTRODUCTION

This section contains the discussion of the background issues, the formulation of the issue, the scope of the issue, the authenticity of research, the research purpose, the benefits of research, and the systematics of research.

CHAPTER II: LITERATURE REVIEW

This section contains a nuanced description of relevant previous research to this study and the research framework.

CHAPTER III: BASE THEORETICAL

This section contains further description of the literature review and puts forth the theory that is used as a model to solve problems within this research.

CHAPTER IV: RESEARCH METHODOLOGY

Research methodology in this section contains a detailed step by step description that is utilized within this study, including the preliminary stages such as the study of literature and scope of research. The next step consists of the determining the number of participants, research instruments, data collection, and data analysis.

CHAPTER V: RESULTS OF RESEARCH AND DISCUSSION

This section consists of the description of the research results and explanation about the analysis based on received results and the providing of future recommendations for the Trans Jogja payment system.

CHAPTER VI: CONCLUSION AND FUTURE RECOMMENDATIONS

The conclusion contains a brief description of the results and discussion. Additionally, there are future recommendations provided.

