

UNIVERSITY STUDENTS' ACCEPTANCE OF E-HAILING
SERVICES: A CASE STUDY IN MALACCA CITY

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DECLARATION OF ORIGINAL WORK

“I declared that this project is the result of my own research except as cited in the references. This research project has not been any degree and is not concurrently submitted in candidature of any other degree.”

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Date :

DEDICATION

This thesis is dedicated To my parents, Mr Nik Ahmad Kamil and Mrs. Narimah whom has always been there supporting me through my ups and downs and giving me the extra boost that I always needed to finish up my thesis. My siblings that has been giving me the moral support that I need. Next, Puan Mislina Atan @ Salleh and Dr. Fam Soo Fen, as my supervisor and panel that has been guiding me and giving me the motivation to finish my thesis. Thank you for the guidance and motivation for helping going through this research. Lastly, to my friends that has been behind me supporting me in my up and downs.

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Thank you very much

ABSTRACT

Development in technology that relate with Global Positioning System (GPS) and internet accessibility has changed the way in transportation system to become more automated via smartphone. The explosion in on demand services through mobile apps have encouraged to implement a new innovation in transportation that meet the needs and wants of users. An E-hailing service is one of technological innovation in transportation which user can order the car through smartphone apps. Nowadays, most of universities encounter with a problems in transportation and also parking system because of increased number of students' registration every year. The objectives of this research are to identify university student acceptance of e-hailing services and to investigate the significance relationship between students' acceptance with e-hailing intention. Other than that, the research framework is adopted by Unified Theory of Acceptance and Use of Technology (UTAUT) model in order to identify factor that influence students' acceptance on e-hailing services according to performance expectancy, effort expectancy, social factors, facilitating conditions, and behavioral intention. This research is conducting using descriptive research for analyse the relationship between independent variable and dependent variable. In this research, researcher use quantitative method through survey for distributing questionnaire among approximately 300 respondents among students from chosen universities (UITM, MMU and UTeM). For data analysis, multiple regressions have been used in order to find which among independent variables have a strong relationship between dependent variable (behavior intention).

ABSTRAK

Perkembangan teknologi yang berkaitan dengan Sistem Penentuan Lokasi Global (GPS) dan akses internet telah mengubah cara dalam sistem pengangkutan untuk menjadi lebih automatik melalui telefon pintar. Pelepasan dalam perkhidmatan permintaan melalui aplikasi mudah alih telah menggalakkan untuk melaksanakan inovasi baru dalam pengangkutan yang memenuhi keperluan dan kehendak pengguna. Perkhidmatan E-hailing adalah salah satu inovasi teknologi dalam pengangkutan yang pengguna boleh memesan kereta melalui aplikasi telefon pintar. Pada masa kini, kebanyakan universiti menghadapi masalah pengangkutan dan juga sistem parkir kerana peningkatan jumlah pendaftaran pelajar setiap tahun. Objektif penyelidikan ini adalah untuk mengenal pasti penerimaan pelajar universiti terhadap perkhidmatan e-hailing dan untuk menyiasat hubungan penting antara penerimaan pelajar dengan niat penggunaan e-hailing. Selain daripada itu, rangka kerja penyelidikan ini diguna pakai oleh model Teknologi Penerimaan dan Penggunaan Teknologi Unified (UTAUT) untuk mengenal pasti faktor yang mempengaruhi penerimaan pelajar terhadap perkhidmatan e-hailing mengikut jangkaan prestasi, jangkaan usaha, faktor sosial, kemudahan memudahkan, dan niat tingkah laku. Penyelidikan ini menggunakan penyelidikan deskriptif untuk menganalisis hubungan antara pembolehubah bebas dan pemboleh ubah bergantung. Dalam kajian ini, penyelidik menggunakan kaedah kuantitatif melalui kaji selidik untuk mengagihkan soal selidik di kalangan kira-kira 300 responden di kalangan pelajar dari universiti terpilih (UITM, MMU dan UTeM). Untuk analisis data, pelbagai regresi telah digunakan untuk mencari yang mana antara pembolehubah bebas mempunyai hubungan yang kuat antara pemboleh ubah bergantung (niat tingkah laku).

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LIST OF SYMBOL

| SYMBOL | | MEANING |
|---------------|---|---------------------------------|
| β | = | Beta |
| α | = | Cronbach's alpha |
| p | = | significant |
| t | = | t value |
| N | = | Sample of respondent |
| r | = | Pearson correlation coefficient |

LIST OF ABBREVIATIONS

| NAME | ABBREVIATIONS |
|--|----------------------|
| Universiti Teknikal Malaysia Melaka | UTeM |
| Multimedia University | MMU |
| Universiti Teknologi Mara | UITM |
| Technology Acceptance Model | TAM |
| Unified Theory of Acceptance and Use of Technology | UTAUT |
| Global Positioning System | GPS |
| Transportation Network Companies | TNCs |
| Theory of Reasoned Action | TRA |
| Theory of Planned Behavior | TPB |

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CHAPTER 1

1.1 INTRODUCTION

This chapter explains the basic concept that be used in this research. At the beginning of this chapter discuss the background of study and followed by the problem statement. The research objective and questions will be discussed in this chapter as a purpose of finding the problem statement in this research.

1.2 BACKGROUND OF STUDY

The growth of information technology has also been a malignant effect towards the metropolitan growth (Daud, Karim and Yusoff, 2015). The progressive growth of in technologies associated to Global Positioning System (GPS) has become major effects in automated transport (Mason and Deakin, 2001). The development of GPS tracking system and internet accessibility have enabled changes in transportation to more automated via mobile apps through a smartphone that encourage people to go to their destination only by tapping on the touchscreen. The development in e-hailing services is one of the technological innovations in a transportation system.

An e-hailing service is a procedure of requesting a car or any public transportation through smartphone applications. E-hailing applications empower the passenger to discover the closest driver for a given territory and enable the driver to distinguish get area and drop off. From that point forward, the driver will get data of the passenger and agree the demand to finish the e-hailing booking process. Demonstration of the e-hailing application has given the platform between taxi drivers and passenger to interact successfully (He and Shen, 2015). In addition, the e-hailing applications can provide convenience in terms of reduce meeting time and searching , and paying taxi fares electronically, to both drives and customers (He and Shen, 2017).

In view of Knupfer, Hannon, and Boutan, (2017), it has taken just a couple of decades for ride-hailing services to make urban adventures more helpful in numerous urban areas, much to the pleasure of city residents the world over. E-hailing services getting acknowledged by a client because of helpful in conveying traveller securely and speedier to the coveted goal. Other than that, the user can specifically be associated with the driver, access to a profile of the driver's character and tailing them on the communicating map so clients know precisely when the taxi will arrive (Ram, 2017). This demonstrates an e-hailing service has greater adaptability regarding serving user accordance to efficiency and effectiveness. The e-hailing

application has changed the method for taxi framework to be more advances which line up with the progression in innovation.

This research is aim to study more details based on students' acceptance of e-hailing services. The factors are identified by using a quantitative method which is conducting a survey among students. After that, the analysis will be made according to data acquired from conducting a survey using questionnaires. This analysis has been conducting in order to prove and support secondary data obtained.

1.3 PROBLEM STATEMENT

Nowadays, mobile technology has become the most important things because of the combination of tools and technologies like GPS-enabled smartphones. In addition, due to the consistent on the internet through smartphones, people more depend on on mobile apps technology with a specific end goal to satisfy their requirements. With the increasing explosion on-demand services especially in transportation like Grab, people can go anywhere and everywhere via mobile apps by the only tap on the smartphone screen. E-hailing services are one of service that can fill the gap that faced by a customer with the availability through a smartphone that can be connected directly to the driver and combine with GPS-enabled smartphones. For instance, like Uber, Grab, lyft, PicknGo and others are e-hail apps that available.

According to Hall et al (2014), transportation innovation has started to beat policy. This became evident shortly after ride sourcing services launched in San Francisco, California in summer 2012. The term TNCs (Transportation Network Companies) invents from the California Public Utilities Commission (CPUC), a commission set to provide a regulatory outline for Uber, Lfty, and SideCar operators in 2012 (Juma,2016). This shows that the e-hailing service has been started in

California before crossing into another country. In Malaysia, Choong (2017) stated that Land Public Transport Commission (SPAD) chief executive officer Mohd Azharuddin Mat Sah announced the regulations yesterday, following the approval of the Land Public Transport (Amendment) Bill 2017 and the Commercial Vehicles Licensing Board Act (Amendment) Bill 2017 in Parliament on Thursday. With the announcement of this new regulation, e-hailing services can be operated as legally in Malaysia.

In view of The Economist (2015), Uber is the most surely understood transportation organizes benefit, working in 311 urban communities in 58 nations and giving in excess of 1 million rides every day as of Fall 2015. Adversary services incorporate Lyft and Sidecar in the U.S., Didi Kuaidi in China and GrabTaxi in South-East Asia. Other than that, Grab the taxi application is currently accessible in 21 urban areas over the district and has raised a sum of US\$340 million in funding (Nadine, 2015). This demonstrates the execution of the e-hailing application in smartphones has higher request among buyer. They are more getting acknowledged with the services in light of helpful that have been given.

In Malaysia, Nancy said in excess of 50 % of taxi benefit clients were currently utilizing this application (e-hailing) and they were not existing taxi clients but rather new ones. Over 70% cents of our 45,000 overview respondents are utilizing this application (The Malaysian Insight, 2017). Malaysia has legitimized e-hailing services to guarantee they can authoritatively work in view of the potential this administrations could change the method for taxi frameworks work. Other than that, the most recent taxi-hailing application (PicknGo) in Malaysia, the application can associate clients with around 10,000 cab drivers which are completely authorized and guaranteed protected over more prominent Kuala Lumpur (Ram, 2017).

As indicated by Ikram (2017), amid peak hours, stuffed vehicles make uneasiness among students. They are not permitted by the bus conductor to have a seat, so they are seen on the tops of the buses. There are constantly a higher number of students in the buses than its ability, which is unsafe and has regularly caused real road misfortunes. In some cases students confronting an issue to ride transport gave by universities particularly amid top hours in light of the fact that the majority of the

students ride the buses and may be over the limit of students inside the buses at that hour. This could prompt safety issues and prompt awkward to ride a buses because the students cannot get seat and must sitting up inside the buses.

Aside from that, Rafael et.al (2009) expressed that Campus parking space has been a main challenge for some universities in urban territories because of restricted limit. A few colleges have restricted students to bring their own private car inside campus in order to overcome limit of parking space, smoothing movement traffic flow and furthermore to decrease accidents rate inside the campus. Such as in Universiti Teknikal Malaysia (UTeM) has issued on prohibited to carry a vehicle for students year 1 and year 2 as a solution to overcome limited parking space, reduce traffic congestion and also an initiative to reduce accident rate happen inside the campus.

In view of Uber CEO Travis Kalanick said a city that invites Uber onto its streets will be where individuals invest less energy stuck in rush hour traffic or searching for a parking spot (Sarah, 2016). E-hailing services make them flexible to move to any places they wanted to go via smartphone which required simple steps for the ordering process. So that, installing these apps to transportation system inside campus enable they reschedule it based on their preferences. No need more for them to bring own transport because of e-hailing services provide services that match their need in real time.

In a nutshell, the emergence of e-hailing services to students is one of the steps to prepare them towards digital. This has been the endeavours to help the administration's craving to drive Malaysia towards the advanced economy. As our executive said that the point of the advanced economy is to manufacture an environment that advances the inescapable utilization of ICT in all parts of the economy to make groups associated all around and cooperating continuously (Asohan, 2012).

1.4 RESEARCH QUESTIONS

1. What are the university students' acceptances on e-hailing services?
2. What are the significant relationships between students' acceptance with e-hailing intention?
3. What are significant factors of students' acceptance towards e-hailing intention?

1.5 RESEARCH OBJECTIVES

According to Grove et al (2014), question about destinations are more particular than the point and relate specifically to the research question. There are three research objectives that relate to research questions that have been constructing in this research which are:

1. To identify university students' acceptance towards e-hailing services.
2. To investigate the significant relationship between students' acceptance with e-hailing intention.
3. To investigate significant factors of students acceptance towards e-hailing intention.

1.6 SCOPE

The scope of this research is to analyse the acceptance of new innovation in transportation among students through e-hailing services which increase efficiency and effectiveness in transportation and parking system universities. The researcher will focus university students' acceptance of e-hailing services in this research. The researcher also wants to see the important of e-hailing services in assisting students with transportation and parking system.