

## The Determinants of Generation Z Intention to Use the Grab E-Hailing Services

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### Abstract

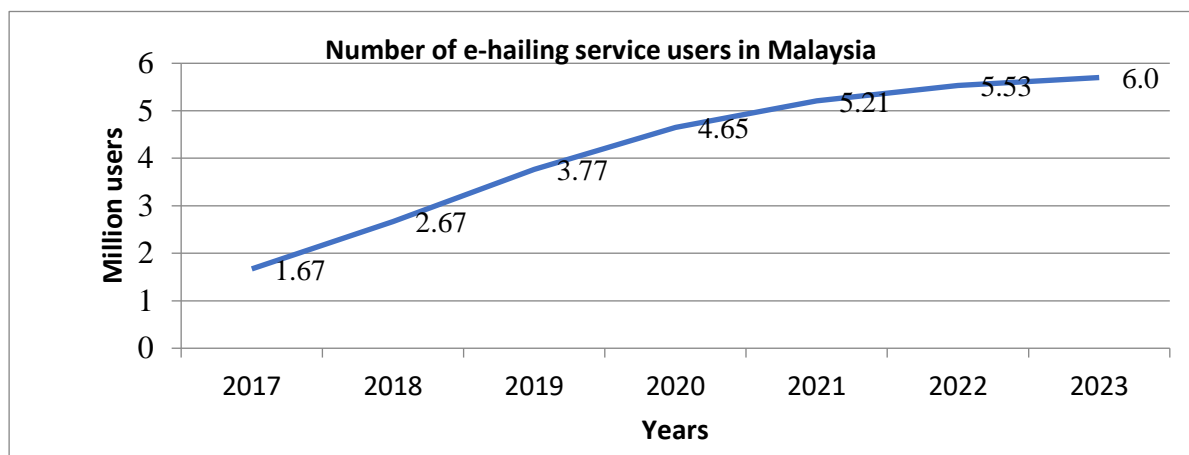
In recent years, a significant change has occurred in the transportation industry in developing Asian countries, particularly in Malaysia. The emergence of several mobile transportation applications has led to increased demand for e-hailing services, such as the Grab e-hailing service. Today's youth is considered to be the most technologically savvy user and is expected to contribute significantly in its long-term development. Hence, to understand the scenario, this study aims to investigate the intention of Generation Z to use the Grab e-hailing service. The data analysis was performed with the PLS-SEM method using data from 320 youth respondents. The results indicate that customer satisfaction, the effect of social media marketing, price, and reliability are significant determinants of the intention to use the Grab e-hailing service among Generation Z. The outcome of this study provides a better understanding for policy-makers to enforce rules and regulations regarding e-hailing which are effective for youth.

**Keywords:** Social Media Marketing, Reliability, Price, Customer Satisfaction, Generation Z.

### Introduction

An e-hailing service, also known as a ride-sharing service, is a service that matches passengers with private drivers via websites and mobile applications utilizing a location sharing system. In Malaysia, the demand for e-hailing services has accelerated recently based on an increase in daily travel demands, with available services including MyCar, EzCab, MULA, DACSEE, Riding Pink, and Grab – one of the leaders in this sector. According to Statista (2019), the number of users of e-hailing services in Malaysia is projected to increase by almost 260 per cent from 1.67 million users in 2017 to 6.0 million users in 2023. According to Grab Singapore (2018), Grab integrated operations and assets with Uber in Cambodia, Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam, thereby becoming the most widespread e-hailing service in Southeast Asia.

I. Figure 1: Number of e-hailing service users in Malaysia



II. Source: Statista (2019).

According to on Department of Statistics Malaysia (2018), 80.1% of individuals aged 15 years and above use the internet, which is an increase of 9% compared to 2015 (71.1%). Meanwhile, the population of mobile phone users showed a slight increase of 0.2% from 2015 (97.5%) to 2017 (97.7%). This combination of increased smartphone uses and internet access in conjunction with greater exposure to innovative technologies has further enhanced the intention of users towards e-hailing services. To date, a growing number of studies have been conducted on e-hailing services (Aw et al., 2018; Giddy, 2019; Mohd Idros et al., 2019). However, there are limited studies regarding the determinants driving users to adopt e-hailing services, particularly amongst the youth. As a result, this research will bridge the gap by identifying the intention to use the Grab e-hailing service with specific reference to Generation Z. Generation Z is generally considered to refer to individuals born between 1995 and 2015, and they are the first generation to have had access to an extensive range of digital communication technology throughout their lives, such as smartphones, Wi-Fi, and interactive computer games (Dwidienawati and Gandasari, 2018). Hence, this study aims to identify factors that influence the intention of Generation Z to use the Grab e-hailing service.

## Literature Review

### The intention to use e-hailing services

A number of factors have been found to influence the intention to use e-hailing services, including the effect of social media marketing, price, customer satisfaction, and reliability. Social media is defined as an online platform through which users can create and share content. According to Payne (2005), the emergence of social media is challenging the traditional notion of customer relationship management. In the traditional customer relationship challenge framework, the organisation has substantial information about its customers, which it can use to manage its relationship with its customers. However, the rise of social media has given companies the opportunity to engage with and listen to their customers while also allowing them to advertise their products. According to Zeithaml (1981), a critical factor for both quality and customer value is price as a brand's standard is affected by the price of its products or services (Turel et al., 2006). According to Button and Hensher (2001), price is an essential indicator in the transportation industry as it affects the affordability of fares. Meanwhile, according to Mburu (2013), price, relationship and value have an influence on customer satisfaction, whereas according to Khuong and Dai (2016),

customer loyalty is affected by price. Ilma Khairani and Sri Rahayu Hijrah Hati (2017) showed that perceived value for money, service quality and e-service quality affect customer satisfaction. Finally, according to McKnight et al. (1986), the ability of a service to deliver punctuality, consistency, and reliability, in relation to arrival at the destination, journey length, communications and scheduled routes, are all essential to consider in ride-sharing service quality dimensions. Similarly, Horsu and Yeboah (2015) show that reliability has a significantly positive influence on customer satisfaction.

### **Case Study and Methodology**

There is scarce literature on the intention to use e-hailing services, both in developed and developing countries, particularly in relation to Generation Z. As the most ethnically diverse and technologically sophisticated generation, Generation Z has the most established connection to many aspects of the digital world, specifically regarding mobility. In this study, a quantitative analysis is conducted to empirically establish the relevance of the factors determining the usage of the Grab e-hailing service among Generation Z. For this purpose, the PLS-SEM method is utilised for the empirical analysis.

### **Case Study Selection**

Since the focus of the case study is on Generation Z, the sample population is defined as undergraduate students in Universiti Malaysia Sarawak (UNIMAS), Malaysia, from the period of December 2018 to February 2019. An online survey questionnaire was distributed to 350 respondents aged 19-22 years old using the UNIMAS university email and WhatsApp phone services. A response rate of approximately 90 per cent was achieved, indicating a very high participation rate among the students. The decision regarding the sample population was guided by several criteria, including a high dependency on car ownership among students, limited public transport availabilities, and very few walking and cycling facilities both on and off-campus. Students from UNIMAS were also selected due to their characteristics, which represent Generation Z, and their ability to use the Grab e-hailing service in comparison with the younger individuals in this generation, who mainly rely on their families for transport decision-making.

### **Hypotheses and the PLS-SEM Approach**

The study applies PLS-SEM to operationalise the complex relationship between the factors that influence the usage of the Grab e-hailing service among Generation Z. Hereby, a total of 17 indicators are used to represent four factors that determine the use of the Grab e-hailing service, namely the effect of social media marketing, price, reliability, and customer satisfaction. PLS-SEM consists of two main assessments, which are the assessment of the measurement model and the assessment of the structural model. The former includes indicator reliability, convergent validity, and discriminant validity, while the latter comprises the path analysis, which represents the direct relationship. The conceptual framework of the hypotheses is presented in Figure 1. The research hypotheses as thus formulated as follows:

1. The effect of social media marketing: This construct takes into account the role of social media marketing through platforms such as Facebook, Instagram, Twitter, and communication applications such as WhatsApp, Telegram, Line, and WeChat. It is assumed that exposure to social media marketing may influence the intention to use an e-hailing service. Therefore, the following hypothesis is constructed:

III. Hypothesis 1 (H1): *There is a significant relationship between the effect of social media marketing and the intention of Generation Z to use the Grab e-hailing service.*

IV.

2. The effect of price: This construct takes into account the role of the price of an e-hailing service. It is assumed that the effect of price may influence the intention to use the e-hailing service. As a student, price may serve as a deterrent when commuting, whereby students may opt for a less costly mode of transport due to budget constraints. Therefore, the following hypothesis is constructed:

V. Hypothesis 2 (H2): *There is a significant relationship between price and the intention of Generation Z to use the Grab e-hailing service.*

3. The effect of reliability: This construct takes into account the role of the reliability of an e-hailing service. It is assumed that a good perception of the service's reliability among undergraduate students may influence their intention to use the Grab e-hailing service. Therefore, the following hypothesis is constructed:

VI. Hypothesis 3 (H3): *There is a significant relationship between reliability and the intention of Generation Z to use the Grab e-hailing service.*

4. The effect of customer satisfaction: This construct takes into account the role of customer satisfaction with an e-hailing service. It is assumed that excellent customer satisfaction may increase the likelihood for students to use the Grab e-hailing service. Therefore, the following hypothesis is constructed:

VII. Hypothesis 4 (H4): *There is a significant relationship between customer satisfaction and the intention of Generation Z to use the Grab e-hailing service.*

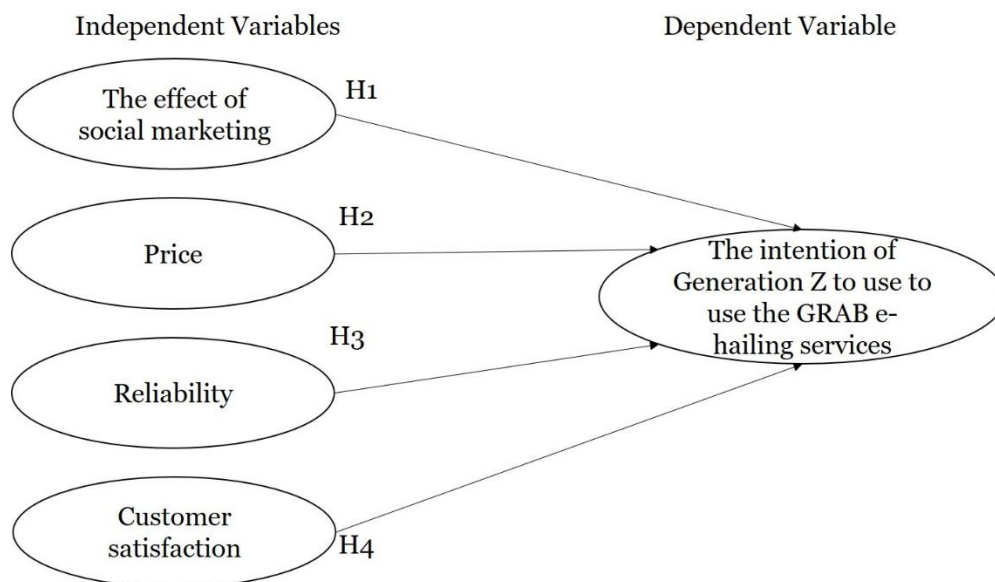


Figure 1: Conceptual Framework

## Results and Discussion

### Descriptive Statistics

Of the 320 respondents, 170 or 53.13% are male, while 150 or 46.88% are female. The sample population is Year 2 students from the Faculty of Economics and Business, thus the majority of the respondents, 284 or 88.75%, are 22 years old, while 36 or 11.25% of the respondents are 21 years old. Most of the respondents' highest education level is STPM (299

or 93.44%), and most of the respondents are students (318 or 99.38%). Most of the respondents reside outside the campus (294 or 91.88%), whereby most stay at Unigarden & Unimedia (259 or 81.01%). Furthermore, the main transportation method of the respondents' to UNIMAS is by car, whereby 250 or 78.13% use this method, and their average travelling times to university are 10-15 minutes (175 or 54.69%) and 15-20 minutes (145 or 45.31%).

#### PLS-SEM Results

##### The Assessment of the Measurement Model

Based on the assessment of the measurement model, several evaluations are conducted for the indicators, which are the reflective constructs. For the indicators' reliability, the constructs are retained with loadings of 0.60 to 0.700. Meanwhile, for convergent validity, the average variance extracted (AVE) is found to be higher than 0.50. Finally, for discriminant validity, the results are acceptable and are shown to be greater than 0.70. Thus, all the constructs are found to be satisfactory, meaning the assessment of the structural model may be conducted.

##### The Assessment of the Structural Model

A value of  $R^2$  is obtained for the assessment of the structural model. According to Urbach and Ahlemann (2010), the  $R^2$  value should be sufficiently high to obtain minimal explanatory power. Based on the results, the  $R^2$  is 0.397. Therefore, the results indicate that the relationships between the dependent and independent variables are substantial (Cohen, 1988). Table 1 shows the PLS-SEM path analysis results for the four main hypotheses.

Table 1

##### *PLS-SEM path analysis*

	Hypothesis	Path coefficient	p-value	Outcome
1	<i>The effect of social media marketing → intention of Generation Z to use the Grab e-hailing service.</i>	0.153***	0.003	Supported
2	<i>Price → intention of Generation Z to use the Grab e-hailing service.</i>	0.130**	0.012	Supported
3	<i>Reliability → intention of Generation Z to use the Grab e-hailing service.</i>	0.084*	0.075	Supported
4	<i>Customer satisfaction → intention of Generation Z to use the Grab e-hailing service.</i>	0.474***	0.000	Supported

Note: (\*\*\*), (\*\*), (\*) indicate significance at 1%, 5% and 10% levels, respectively.

Based on the PLS-SEM hypothesis testing output presented in table 1 and figure 2, all four hypotheses are found to be supported. First, there is a significant relationship between the effect of social media marketing and the intention of Generation Z to use the Grab e-hailing service. Second, there is a significant relationship between price and the intention of Generation Z to use the Grab e-hailing service. Third, there is a significant relationship between reliability and the intention of Generation Z to use the Grab e-hailing service. Fourth, there is a significant relationship between customer satisfaction and the intention of

Generation Z to use the Grab e-hailing service. The results also found that customer satisfaction is the strongest predictor, followed by the effect of social media, price and reliability.

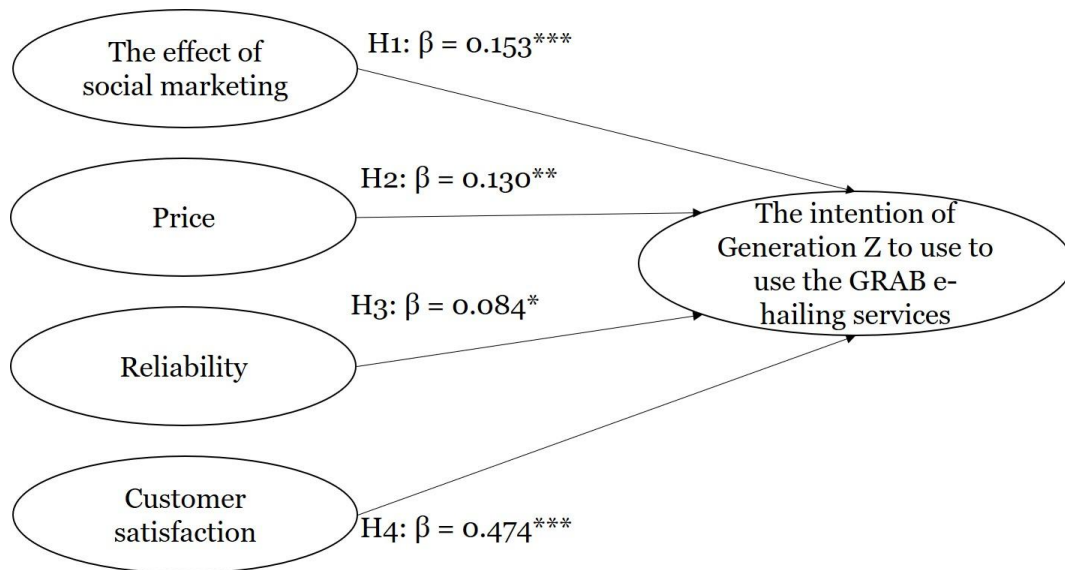


Figure 2: PLS-SEM Output

## Conclusion

The study identified four main explanatory factors that affect Generation Z's intention to use the Grab e-hailing service, specifically customer satisfaction, the effect of social media, price and reliability. As the main predictor in this study, it is relevant to state that customer satisfaction substantially affects the intention to use Grab. This is because excellent customer experience relates to the positive functional experience of using Grab, including the almost immediate arrival of a Grab car with an estimated time of arrival, a real-time geo-location, and driver ratings as well as value for money. Next, the effect of social media marketing has a significant effect on the youth's decision making. As Generation Z is considered technologically savvy and spends long hours with digital devices, such as mobile phones, their travel decision-making is highly influenced by modes of transport that are trending on social media. In contrast to conventional marketing platforms such as newspapers, radio and televisions, social media is considered to be the most effective marketing channel among the youth. The effect of price is also significant, but it is relatively less important than customer satisfaction and social media marketing. This is because Generation Z users may opt for online discount vouchers and also change their trip to non-peak hours, which can reduce the fare. Reliability, here referring to the availability of Grab drivers in a specific neighborhood also significantly influences the intention of Generation Z to use the Grab e-hailing service. As the Grab e-hailing service operates 24/7 and functions on an on-demand basis, the results demonstrate that the service is considered reliable.

Government policy is imperative to regulate the Grab e-hailing service and its usage among youth, specifically Generation Z. While policy-makers have continuously enhanced the Grab-related policies to provide a convenient, reliable, and safe transport option in Malaysia, the users have to be informed of any changes that may result from the changes to the policies. For example, recent changes in relation to Grab drivers' requirements may have repercussions, such as an increase in the Grab fares. However, the emergence of other e-hailing services in Malaysia provides an opportunity for Generation Z users to become more



selective in their e-hailing service decision-making. Therefore, due to the effects of a possible price hike, Grab may need to consider the consequences of a possible demand-shift to competing companies.

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