

## Factors Affecting Sharing Economy Usage in Malaysia and Pakistan: A Comparative Outlook

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### ABSTRACT

*The infancy of the ride-hailing industry in Malaysia and Pakistan has hindered their levels of participation among the users of these services. Therefore, this paper aims to investigate factors affecting the ride-hailing participation levels with the help of the Technology Acceptance Model (TAM). Survey questionnaires will be handed out among the users and the results will be initially evaluated using Structural Equation Modelling and further comparisons between the results from both the countries will be carried out through Multi-Group Analysis (MGA). The results are aimed to provide empirical and practical insights explaining the cause of low usage levels of the ride-hailing services in both countries. Additionally, the conclusion will produce clearer perspectives explaining the factor that most highly affects a user's decision to use the service or otherwise. The results of this study are expected to help governmental authorities as well as the policymakers of ride-hailing services at implementing effective user-friendly strategies by improving the factors that might be negatively affecting a user's participation decision.*

### INTRODUCTION

Today, the phenomenon known as sharing economy has evolved a consumer's commercial behaviour and is expected to reach a \$335 Billion by 2025. Driven by information technology platforms, sharing economy

generally refers to the temporary sharing or renting of idle goods and services between users and providers (Cherry & Pidgeon, 2018; Dreyer, Lüdeke-freund, Hamann, & Faccor, 2017; Ganapati & Reddick, 2018). Evidently, the disruptive nature of sharing economy has disturbed various incumbent industries including transportation, health-care, accommodation, education, retailing (Cheng & Foley, 2018; Ganapati & Reddick, 2018; Guttentag & Smith, 2017). Some of the most prominent examples include ride-hailing with Uber, Grab, Didi, Careem, accommodation such as Airbnb, Food & Beverages such as Foodpanda and so on (Guttentag & Smith, 2017; Reza, Davidson, & Laroche, 2017). Statistics have shown that sharing economy users in developed countries such as the United States was as high as 44.8 million adults in 2016 alone (Statista, 2018). In line with that, research also has shown that sharing economy can provide multiple benefits for developed countries including employment opportunities, extra income, reciprocity, effective resources utilization, digital literacy, transparency, accountability, convenience, social mobility, skills development, infrastructure blooms not attainable otherwise (Dillahunt, Arbor, & Malone, 2015; Ernst & Young LLP, 2015). However, on the other hand, developing countries are still struggling to reach their full potential in terms of sharing economy growth mainly because it is still at an infancy stage (Awang et al., 2018). Observations have shown that sharing economy holds great potential to bring immense benefits to the developing countries including economic development, boosting entrepreneurship, lower-impact consumption, regulating business formalities but is unable to reap them due to the lack of trust, under-developed technological infrastructure, cultural norms (Retamal & Dominish, 2017). In Malaysia and Pakistan specifically, a limited amount of empirical evidence exists in terms of ride-hailing services. Prior studies have mainly focused on accommodation services such as Airbnb rather than ride-hailing in Malaysia while

examining the user's motivations to use the services (Awang et al., 2018; Jamal, Razli, Jamal, Salehuddin, & Zahari, 2017). As far as Pakistan is concerned, even lesser empirical studies have been carried out to the best of our knowledge. Therefore, this paper aims to contribute to that research gap in both countries by answering the following research question: *What are the factors that affect a user's participation level of ride-hailing services in Malaysia and Pakistan?* The next two sections explain the related work as well as outline the research methodology. This paper ends with a conclusion discussing the significance of this study.

## LITERATURE REVIEW

Sharing economy refers to a system that facilitates the sharing or renting of underutilized assets or services between individuals or organizations through the internet (Bostman, 2010). The most common type of sharing economy services includes ride-hailing, accommodation, crowd-funding. The pioneers of ride-hailing being Uber is one of the leading players of this industry with immense growth and expected financial benefits in the near future (Constantiou, I., Marton, A., & Tuunainen, 2017; Marchi & Parekh, 2015). Majority of the ride-hailing segment of sharing economy has been subject to multiple investigations in the West. While some have examined the effects of ride-hailing on the incumbent taxi industries in various locations, others explored the effect of behavioural as well as utilitarian factors on the intention and actual use of this new disruptive form of business.

In that vein, Technology Acceptance Model (TAM) is the most commonly applied model in researches concerned with identifying and explaining factors related to adoption or acceptance of a certain technology, including the usage of sharing economy services. TAM introduced by Fred Davis in 1986, explains user behaviour leading to a use of technology consisting of two

measures in terms of technology acceptance and adoption which are, *Perceived Ease of Use* and *Perceived Usefulness*. Perceived ease of use refers to the degree of an individual's belief that using a specific information system would be free of effort and an application perceived to be more easier to use than others, it will be accepted and used more by a user (Davis, 1989). Whereas perceived usefulness refers to the degree of an individual's belief that using a specific information system would improve his/her job performance (Davis, 1989).

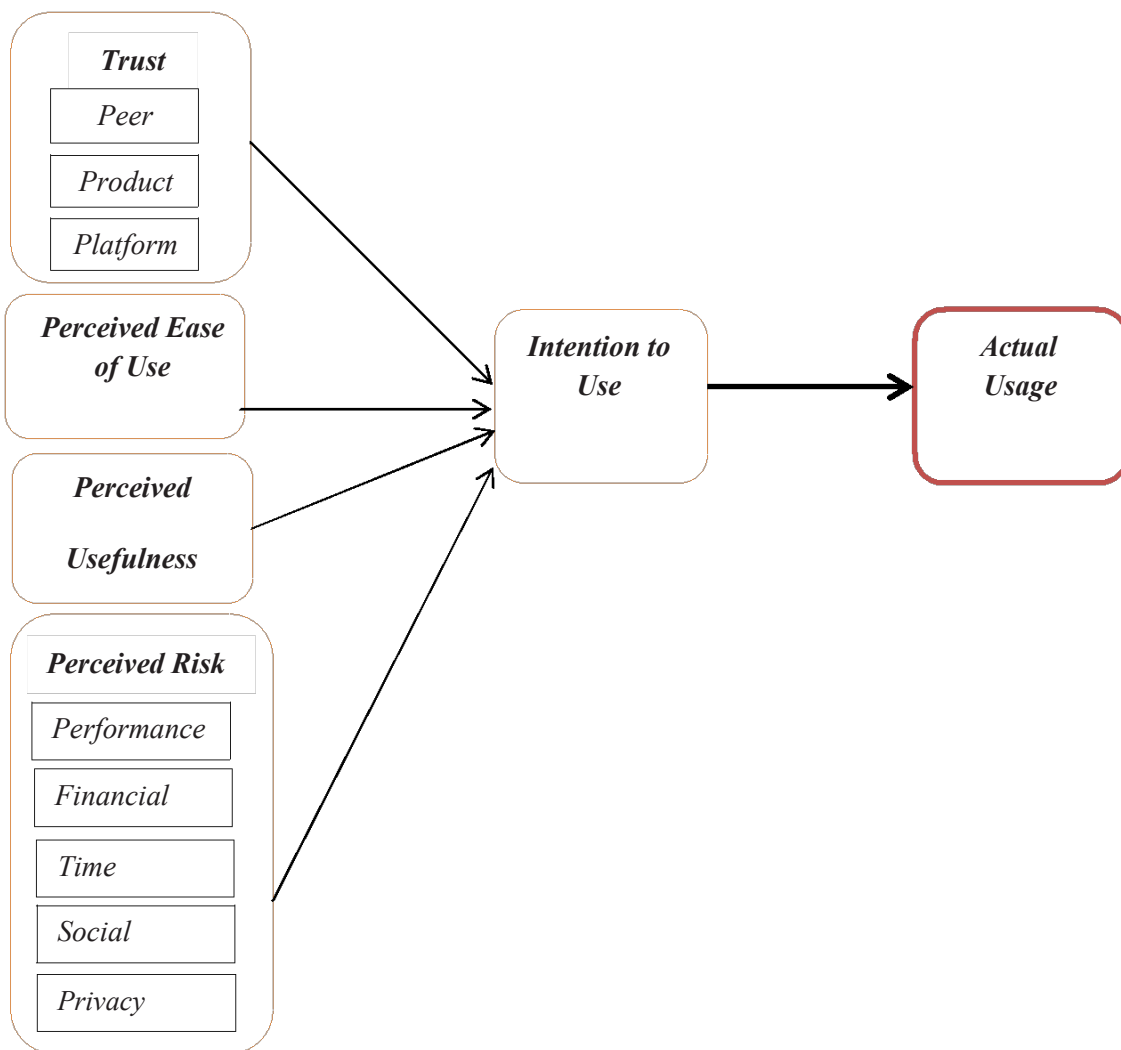
Initially, TAM was subject to investigation for work-based studies but more recently it has diverted into exploring factors of individual technology adoption through the practical implementation of this method in various domains globally, particularly sharing economy. A thorough review of the literature suggests that TAM has been applied to multiple industries including health-care (Holden, Asan, Wozniak, Flynn, & Scanlon, 2016; Hsiao, Moser, & Schoenebeck, 2018; Ward, 2013), education (Briz-ponce & García-peñalvo, 2015; Un, Contreras, Cadémico, & Trativo, 2011), finance (Abroud & Voon, 2015; Asnakew, 2018). The review of the TAM literature in technology adoption reveals that limited empirical evidence exists in terms of TAM and ride-hailing applications Grab in Malaysia and Uber in Pakistan. To the best of our knowledge, the majority of Malaysian literature in terms of sharing economy merely provides insights about factors that affect one's motivation to transact with peer-to-peer accommodation provider, Airbnb (Awang et al., 2018) as well as an exploratory research regarding the potential opportunities and challenges that Uber might face in Southeast Asia (Iseas, 2016). Pakistan on the other hand also lacks empirical evidence in terms of sharing economy usage. Only a single public survey has been carried out investigating the usage trends of ride-hailing services in two major cities of Pakistan including Lahore and Karachi. This survey carried out by an organization called Rozee.pk revealed that smartphone holders in the two

cities only made use of the available services occasionally where they used it once to thrice times only per month (Rozee.pk, 2017). Thus, this study proposes to use the Technology Acceptance Model (TAM) to investigate the factors that affect the usage of ride-hailing services in both countries.

Moving forward, trust is said to play a pivotal role in the transaction-related activities of sharing economy where communication between two strangers occurs. Typically, trust takes time to develop in scenarios where human interaction and could posit as a problem in a digital environment (Alsamani, 2018). The conceptualization of trust in the sharing economy literature is divided in terms of unidirectional, bidirectional or multidimensional explanatory properties. The focus of this research however, lies in the multidimensional aspects of trust. It involves factors including *ability*, *integrity* and *benevolence* (Hawlitcshek, Teubner, & Weinhardt, 2016) These three beliefs are said to affect one's behavioural intention and integrity was recorded to be one of the most strong effects on trusting intentions in virtual teams (Gefen & Straub, 2004). Additionally, trust in sharing economy can be viewed from three different perspectives. Namely, trust in *peer*, trust in *product* and trust in the *platform*, also widely known as the 3P's (Hawlitcshek et al., 2016) However, it has been vaguely researched in terms of trust from the perspective of both supplier and consumer at the same time since the traditional business-to-consumer (B2C) research focused primarily on the consumer's trust on the vendor only (Gefen & Straub, 2004; Hawlitcshek et al., 2016). Review of literature in terms of trust and sharing economy reveals that the most common assets of sharing economy investigations have been industries such as the accommodation industry players including Airbnb and the ride-hailing service providers such as Uber (Alsamani, 2018; Hawlitcshek, Notheisen, & Teubner, 2018; Mittendorf, 2017). Other than trust, perceived risk is also said to play a role in the usage of sharing economy

services. This study understands perceived risk as a degree to which the user believes that using sharing economy ride-hailing services causes a possible performance, financial, time, privacy or a social loss (Featherman & Pavlou, 2003). The measurement of perceived risk in terms of Technology Acceptance Model (TAM) is interpreted as vital because a prospective user of purchase or adoption of an e-service or good consciously and well as unconsciously associates risk with their decision (Featherman & Pavlou, 2003; Bauer, 1967). Therefore in terms of information system adoption research,

Featherman and Pavlou (2003) argued that perceived risk would differ in accordance with the nature of the product or service and proposed seven facets for perceived risk. And these facets include performance, financial, time, psychological, social, privacy and overall risk (Lee, 2009). Consequently, this study proposes to employ Technology Acceptance Model, Trust and user’s Perceived Risk in order to understand the factors that affect the actual usage of the ride-hailing services in Malaysia and Pakistan. Figure 1 below demonstrates the proposed research framework.



**Figure 1** Proposed research framework

## METHODOLOGY

Given the scarcity of empirical studies concerning ride-hailing services in Malaysia and Pakistan, this paper adopts a positivist research approach in order to answer the research question by using the quantitative method of data collection through survey questionnaires as our data collection instrument among users of ride-hailing services including *Grab* and *Uber* in Malaysia and Pakistan respectively. Two separate sets of questionnaires have been designed to suit the local preference of users in both Malaysia and Pakistan. Questionnaires include a total of 42 questions adopted from valid and reliable sources and rated using a 5-point Likert scale. The demographic information of the respondents includes *gender, age, occupation, experience in using Grab/Uber* and *Usage intensity of using Grab/Uber*. The questionnaires are to be handed out manually and electronically in both the countries' states which contribute the highest GDP (Gross Domestic Product) among others. This is due to the higher potential to contribute to the sharing economy growth due to higher GDP growth rate. Thus in Pakistan, data will be collected from Pakistan's major GDP-contributing states including Punjab which grosses \$173.51 Billion. As for Malaysia, the state of Sabah which contributed a national growth of 8.2% in 2017 (Department of Statistics Malaysia, 2018) followed by the West Malaysian areas of Kuala Lumpur (7.4% in 2018) and Selangor (7.1% in 2018) will be subject to data collection throughout the course of this study. Moreover, the data will be collected by implementing purposive sampling. More specifically, Maximum Variation Sampling (MVS) also known as Heterogeneous sampling which refers to identifying subjects from a vast spectrum of the pool of population in hopes of achieving a better understanding of the topic of interest (Etikan, Musa, & Alkassim, 2016) will be utilized for the course of this study.

In addition to that, the collected set of data will be analyzed using a few statistical approaches. Firstly, Statistical Package for the Social Sciences (SPSS) will be utilized in order to evaluate the demographic capabilities of the data collected as well as to test whether the data is reliable and valid at the same time. Moreover for the cause-effect measurement objectives of this research, Partial Least Squares (PLS) – Structural Equation Modelling (SEM) will be used to measure the direct effect of Trust, Perceived Ease of Use, Perceived Usefulness and Perceived Risk to a user's Sharing Economy Usage mediated by Intention to Use, as suggested by TAM (Davis, 1989). In line with that, the structural model, as well as the measurement model of this research's framework, will be tested using PLS-SEM. This is because PLS-SEM is more capable in handling formative and reflective constructs as compared to Covariance Based (CB)-SEM where it can measure formative constructs but certain specifications must be followed in order to ensure identification of the model (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). Other than that, PLS-SEM has greater statistical power than CB-SEM where it is able to predict targeted variables, complex structural and measurement models are handled with equal abilities. Whereas CB-SEM makes it difficult for complex models with multiple constructs to be tested where it's structural model must have non-recursive relationships (Hair et al., 2014). Later after testing of the structural and measurement models of both Malaysian and Pakistani set of datum, the results will then be compared using the Multi-Group Analysis (MGA) in PLS-SEM. MGA allows testing whether there are any significant differences in the data groups estimates. The method used in this study is PLS-MGA. This method according to Sarstedt (2011) refers to a non-parametric test of significance to look for differences in group-specific results through the PLS-SEM bootstrapping results (Sarstedt, 2011).



## CONCLUSION

All in all, this paper commenced with the introduction of the background and the motivation of this research. As the paper progresses, it then discusses the problem associated with sharing economy services in developing nations such as Malaysia and Pakistan which includes the justifications of the problem as evidently portrayed by the previous empirical evidence. Next, the identification of the research problem led to the formation of an important research question. Therefore in order to answer the research question, this paper then discusses the overview of the plethora of literature that has been carried out in recent times and outlines multiple perspectives regarding the research ground of this study. The overview of the literature moulded the proposed framework of this research which is concerned with providing answers for the research questions formed, supported by sound theoretical models. Once the research framework is outlined, this paper further went on to discuss the methodology applied for the course of this paper which includes the research instrument, data collection methods as well as the statistical approaches that are planned to be applied by this research after the completion of the data collection process.

Apart from that, this research is considered to be important for a number of reasons. Firstly, the results of this investigation will be able to provide some important implications in terms of theoretical, managerial and practical contributions. Theoretical wise, the sharing economy literature has been widely covered by information technology acceptance and adoption models such as Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB) or Unified Theory of Acceptance of Use of Technology (UTAUT) globally. However, the application of TAM throughout Malaysia and Pakistan digital economy environment is scarce and vital at the same time to be carried out. By investigating

the effect of user trust, perceived usefulness, perceived ease of use and peer's perceived risk, the results of this study are expected to provide new insights from the perspective of utilitarian factors which might be impeding the sharing economy services usage in the two countries. It is noted that identifying these factors is important for the sharing economy service providers, practitioners as well as the policymakers to be able to focus specifically on improving and bettering the sharing economy platforms in order to ease the usage process and build a stronger, devoted and constant use of their services in their countries of business.

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