

Effects of Perceived Risks, Reputation and Electronic Word of Mouth (E-WOM) on Collaborative Consumption of Uber Car Sharing Service

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Abstract. Current transition from traditional economic model of selling and buying to sharing economic business creates a huge impact on consumers' preferences to participate in collaborative consumption. The market entrance of sharing economic business is relatively new, thus it builds scepticism among consumers. Consumers' trust becomes the most crucial aspect in determining their willingness to participate in collaborative consumption. This study will reveal the effects of perceived risks (performance and social), reputation and Electronic Word-of Mouth (E-WOM) on Malaysian consumers' intention of collaborative consumption, especially for Uber car sharing service. This study inspires to enrich the literature for collaborative consumption and perceived risk theory. From the practical perspective, this study may provide insights in assisting the collaborative consumption service providers especially Uber car users on factors influencing the intention to engage in such service.

1. Introduction

The presence of Web 2.0 has enabled countless opportunities for new market entrance over the boundaries. One of the most widely discussed subjects regarding new market entrance as a consequence from the presence of Web 2.0 is "sharing economy business". This innovative economic model is describes as the ability of individuals or groups to generate income from underutilized assets. The demand of this innovative economic model has been derived from the growth of world population which resulting in a lack of resources. Thus, consumers are seeking for the best solutions to fulfil their needs.

Sharing economy business model also promise more sustainable way to utilize the resources. In the recent years, collaborative consumption which falls into the category of sharing economy business model has benefited from the existence of Web 2.0. This peer-to-peer based activity is conducted through online platform as a medium of interaction. Collaborative consumption is classified into three types of systems including product service systems, redistribution markets and collaborative lifestyles¹. By focusing on product service system that emphasizes on product usage rather than ownership, this research stressed on car sharing service. The statistics of car sharing users recorded by Statista in 2016 shows rapid increase of consumer acceptance towards collaborative consumption.



this study aims to measure the effects of perceived risk, reputation and Electronic Word of Mouth (E-WOM) on Malaysian's collaborative consumption of car sharing service and utilizes measurement items from the previous research.

1.1. Problem Statements and Objectives

The most dominant car sharing providers in Malaysia are Uber and GrabCar. Uber car sharing service covers several areas including Kuala Lumpur, Johor Bahru, Ipoh, Melaka, Penang and Kota Kinabalu. The growing market of collaborative consumption mostly in car sharing service has increased the competition of traditional business model that focused on product and service ownership such as car dealers, rental car companies and taxi service. Current market situation in Malaysia creates a lot of opposition from traditional business model. Some criminal issues arise from the conflict of taxi drivers who oppose the emergence of car sharing service in Malaysia. This situation also affects the trustworthiness of collaborative consumption among consumers. In order to provide better exposure and increase consumer participation in car sharing service, the risk associated with this new market should be identified.

The research trend regarding collaborative consumption has increased over the past several years. Previous researchers believe that consumer participation in collaborative consumption is highly related with the burden of ownership. The risk associated with product ownership is the most important factor that makes consumer switch into collaborative consumption². Other researchers focusing on trust model in identifying the risk associated with collaborative consumption³. However, the component of perceived risk is not widely used in determining the factors that affecting consumer intention to participate in collaborative consumption.

Based on the arguments above, this study is specifically aims to fulfill the following objectives:

1. To identify the relationship between the independent variables (performance risk, social risk, electronic word-of-mouth (E-WOM) and reputation) on consumer intention toward collaborative consumption.
2. To recognize the most important factor that influence consumer intention toward collaborative consumption.
3. To investigate the influence of demographic profile groups (age, gender, race, income, education background, household size, and car ownership) on consumer intention toward collaborative consumption.

2. Literature Review

2.1. Sharing Economy Business

This new economic model is no longer focusing on product ownership but rather emphasize on the product usage. Sharing economy is often associated with peer-to-peer model where information technology becomes the platform for people to offer and share underutilized resources which are financial, social and environmental⁴. Although sharing economy has resulted limited access to the product, but this innovative concept also reduced the transaction cost because the cost of ownership is not incurred⁵. Temporary access right of the product in sharing economy business is classified as accessibility-based system which is contrary to the concept of traditional market⁶.

Sharing sites act as a platform for sharing economy business provider to connect directly with consumer and create disintermediation across the supply chain⁷. Since digital platform has become the enablers of sharing economy, technology acceptance will also affect the adoption level of sharing economy business. 'Technophilia' or dependency on internet to do things more efficiently and easy is one of the factors that affect their adoption on sharing economy⁵.

Sharing economy business is often associated with sustainability which defined as the ability of resources to meet current needs without compromising the ability of future generations to meet their needs. Through sharing economy, everyone is able to fully utilize their resources by mitigating the cost of ownership through the act of sharing, renting, lending, subscribing, reselling, swapping and/or donating⁸. Environmental consciousness is also one of the factors that derive the demand on this innovative economic model⁴.

2.2. Performance Risk

Performance risk refers to the chances of item failing to meet the performance requirements originally intended of the purchase⁹. Performance risk is highly affected customer satisfaction level when the service purchased is not completed in the manner as they expected. Performance risk is similar with functional risk which involves the consumer's belief that a purchased product or service will not offer preferred benefits to a consumer¹⁰. This risk is perceived more prominently when the consumers are unable to try the product or service before purchasing.

Consumers are concern of their privacy in collaborative consumption because they are utilizes items which are shared by others¹¹. However, other perspectives believe performance risk of product ownership will resulted in consumer to shift from traditional economic model to access based consumption.

Most of car sharing drivers are non-professional drivers and they are likely to be unfamiliar with certain road or places. Statistics from Benenson Strategy Group shows the percentage of Uber drivers without previous professional driving experience is made up of 64%. Consumers also concern about the availability of the car at their desired time. The risk of product availability is classified as perceived product scarcity risk¹². Since the activity of collaborative consumption is done through the use of online platform, the complexity an online platform application is also positively influenced a consumer decision¹³.

2.3. Social Risk

Social risk is the external factor of psychological risk which described as the likelihood of the purchase resulting in others thinking of the consumer less favourably⁹. Social risk is also defined as the potential loss of status in social group as a result of adopting a product or service. Social risk is concerned with the possibility of attracting unfavourable attention and response from purchasing a particular product. Social risk also presence as the results from the social embarrassment and loss of social esteem when the user's friends or family comparing the brand image with the image they have on them, as well as the internal psychological disappointment at oneself to make a purchase which is not consistent with their image¹⁴.

Car sharing service is often associated as the biggest rival for taxi and other licensed transportation service. The rise of the sharing economy is predicted to have a major societal impact, and thus holds relevance to both practitioners and policy makers⁶. One of the reasons in refusal of social acceptance towards collaborative consumption is because of the unfair tax imposition and licensing.

As of mid-2015, protests had been staged in Germany, Spain, France, and the United Kingdom and dangerous incidents involving passengers have been documented regarding car sharing service. Similar to other countries, car sharing service such as Uber and GrabCar is a new evolution in Malaysia that gain different acceptance among citizen. Therefore the decision to participate in car sharing service is often depends on the perceived social risk that clarify the acceptance of a consumer social circle towards their decision¹².

2.4. Reputation

Reputation is described as consumer's perceived character of certain brand or overall perception of the substantial characteristics about the companies or brands¹⁵. Reputation is also explained as the value judgment from a valuer based on accumulated past behaviour of the valuee. There is a time lag effect in reputation where it is accurate after the latest transaction, dependable on previous transaction and become less accurate over the time. Overall assessment based on long term behaviour has distinguished reputation from risk, which is associated with temporary behaviour assessment³.

Reputation of collaborative consumption increased in accordance with a sharp rise in consumer participation over the years. Based on the statistics from The Economist in 2013, sharing economy business specifically in peer-to-peer rental market is valued as 26 billion dollars U.S. MIT Sloan Experts in 2011 estimated peer-to-peer exchange goods and services is to dominate the market with the total value of 110 billion dollars U.S. Since collaborative consumption has become one of the biggest threats for traditional economic model, it is important to sustain positive reputation. Due to the product quality that cannot be measured easily, the feeling of uncertainty in consumer mind will increase during the purchase decision process¹⁶. Thus, reputation plays a vital role in creating first impression that will affect consumer decision.

There are several ways that have been implemented by car sharing service companies in order to improve their reputation including online rating system; whereas adding photos and videos is another tool that has been used to build reputation in collaborative consumption¹⁷. By using the medium of online platform, these testimonials are able to reduce the risk of uncertainty and make collaborative consumption as a safer choice. Some collaborative consumption companies use the medium of third party in order to enhance their reputational ratings. As a conclusion, reputation in collaborative consumption is a collection of recommendation which prevent some malicious recommendations from affecting overall reputation of platform provider¹⁸.

2.5. Electronic Word of Mouth (E-WOM)

Word-of-mouth (WOM) is initially defined as physical communication between non-commercial entities about a product of the company. The term of Word-of-Mouth evolved in line with adoption of technology where internet become enablers for consumer to channel their thoughts regarding consumption experience in collective and unbiased manner¹⁹. By referring to the Dell Hell scandal in the early stage of Web 2.0 development, it is undeniable that Electronic Word-of-Mouth creates powerful impact on brand image.

Electronic Word-of-Mouth plays an important role mostly for intangible product or service such as collaborative consumption. By focusing on hospitality and tourism industry to illustrate intangibility of product, previous researcher described WOM as the most influential information source that affect consumer decision²⁰. This is because the level of difficulty in evaluating intangible product is very high prior to consumption. In order to provide better platform for consumer to channel their opinion or thoughts regarding collaborative consumption, platform providers usually develop an online rating system where consumer are able to give the reviews regarding their consumption. Electronic Word-of-Mouth about collaborative consumption may also occur in several form including photos and video sharing¹⁷. In the other hand, E-WOM also has positive influence on perceived value and perceived risk of collaborative consumption¹³. Since car sharing service is relatively new in Malaysian market, this research believes that car sharing service is highly determined by Electronic word-of-mouth.

2.6. Collaborative Consumption

Collaborative involve two or more parties in order to achieve mutual objective at the same time. Whereas consumption can be define as the usage of particular resources. Collaborative consumption is one of the branches in sharing economy business. Among other activities that involved in sharing economy business are cooperatives, co-housing, co-creation, and Wikinomics²¹. Collaborative consumption is defined as “peer-to-peer based activity of services, coordinated through community-based online services”²².

There are several factors that motivates consumer to participate in collaborative consumption including cost saving, sustainability, self-belonging towards the society and to avoid the burdens of ownership. In term of sustainability, the resource efficiency in production and technological innovations are inadequate to reduce the current use of natural resources. Thus, collaborative consumption will increase to potential to conserve resources²³.

The growing use of information technologies in the Web 2.0 also generates tremendous impact on collaborative consumption. The Web 2.0 Era has increased the amount of user-generated content, as well as amount of information that is created and consumed online²⁴. In fact, sharing platform is describes as a system where content generation is highly distributed and scattered due to strong user’s personalized control²⁵.

3. Research Hypotheses

This research will examine the effect of independent variables which are perceived risk, reputation and Electronic Word of Mouth (E-WOM) on intention of collaborative consumption. However, only two relevant components of perceived risk will be used as independent variables, which are performance risk and social risk. The following statements are hypothesis that will be used in this study:

- H1** *There is a significant and positive relationship between performance risk and consumer intention of collaborative consumption.*
- H2** *There is a significant and positive relationship between social risk and consumer intention of collaborative consumption.*
- H3** *There is a significant and positive relationship between reputation and consumer intention of collaborative consumption.*
- H4** *There is a significant and positive relationship between electronic word of mouth (E-WOM) and consumer intention of collaborative consumption.*

The following Figure 1 is a conceptual framework depicting all the hypotheses outlined above:

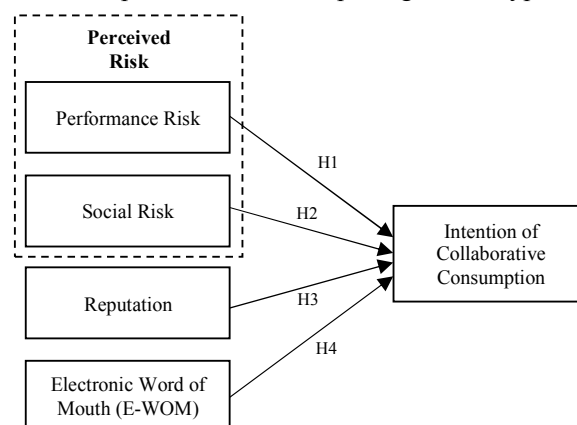


Figure 1: Conceptual Framework

4. Research Instrument

The questionnaire will be distributed to the respondents through physical and online platform. The questionnaire consists of four sections. Section A will include screening question, while Section B contains four factors of independent variables (performance risk, social risk, reputation and electronic word-of-mouth (eWOM)). Section C will cover several questions regarding the dependent variable (intention towards collaborative consumption). Finally, the respondents will answer several demographic questions including age, gender, race, income, education background, household size, and car ownership. All scale items are adopted and adapted from previous research.

4.1. Performance risk

1. There is high likelihood that the car I want will not be available when I want it.
2. There is high likelihood that the car I want will not arrive on time.
3. I cannot examine the quality of Uber car.
4. I may have problems when riding in a stranger's car.
5. It is too complicated to use Uber application.

4.2. Social Risk

1. Sharing a car allows me to be a part of a group of like-minded people.
2. Sharing a car makes me feel unfair to taxi drivers.
3. By sharing a car, my peers will regard me as a stingy person.
4. My friends would approve of the sharing option.
5. My family would approve of the sharing option.

4.3. Reputation

1. Uber service is as good as expected.
2. Uber service is accurate, but with some degradation, e.g. delay for service.
3. I have experience where Uber rejected my request.
4. I have experience where Uber gave the wrong or malicious response for my request.
5. I have a better option than using Uber.

4.4. Electronic Word of Mouth (E-WOM)

1. I constantly follow specific online media that provide information about Uber service.
2. I often read other rider's online reviews to know whether Uber makes a good impression on others.
3. I often consult other user's review to use Uber service.
4. I frequently gather online information before I choose to request an Uber service.
5. If I do not read others' online reviews, I worry about my decision to use Uber service.

4.5. Intention of Collaborative Consumption

1. Collaborative consumption through car sharing service is a better mode of consumption rather than buying a car.
2. All things I considered, I expect to continue collaborative consumption often in the future.
3. My participation in collaborative consumption benefits me financially.
4. My participation in collaborative consumption saves my time.
5. Collaborative consumption helps save natural resources.

5. Conclusions

This study aims to identify the relationships between performance risk, social risk, reputation, electronic word-of-mouth, and other demographic factors toward consumer intention of collaborative consumption. This article outlines the problem statement and objectives that become the cause of the research being conducted and reviews the relevant marketing literature on collaborative consumption, risk, reputation, and E-WOM. It then highlights the hypotheses and scale items to measure the proposed relationships. It is envisaged that future articles to be generated from this study will discuss

in greater details on the descriptive and inferential results, as well as theoretical and managerial implications of this study. Findings from this study will assist the collaborative consumption service providers especially Uber car users in improving their services in order to compete in the transportation market strategically.

References

- [1] Botsman, R., & Rogers, R. (2010). What's mine is yours. The Rise of Collaborative Consumption.
- [2] Schaefer, T., Lawson, S. J., & Kukar-Kinney, M. (2015). How the burdens of ownership promote consumer usage of access-based services. *Marketing Letters*, 1-9.
- [3] Liang, Z., & Shi, W. (2005, January). PET: A personalized trust model with reputation and risk evaluation for P2P resource sharing. In *System Sciences, 2005. HICSS'05. Proceedings of the 38th Annual Hawaii International Conference on* (pp. 201b-201b). IEEE.
- [4] Cohen, B., & Kietzmann, J. (2014). Ride on! Mobility business models for the sharing economy. *Organization & Environment*, 27(3), 279-296.
- [5] Schor, J. B., & Fitzmaurice, C. J. (2015). 26. Collaborating and connecting: the emergence of the sharing economy. *Handbook of Research on Sustainable Consumption*, 410.
- [6] Dervojeda, K., Verzijl, D., Nagtegaal, F., Lengton, M., Rouwmaat, E., Monfardini, E., & Frideres, L. (2013). The sharing economy: accessibility based business models for peer-to-peer markets. *European Commission Business Innovation Observatory*, September.
- [7] Demary, V. (2015). Competition in the sharing economy (No. 19/2015). IW policy paper.
- [8] PricewaterhouseCoopers, L. L. P. (2015). The sharing economy. Report, Consumer Intelligence Service.
- [9] Pires, G., Stanton, J., & Eckford, A. (2004). Influences on the perceived risk of purchasing online. *Journal of Consumer Behaviour*, 4(2), 118-131.
- [10] Kim, L. H., Kim, D. J., & Leong, J. K. (2005). The effect of perceived risk on purchase intention in purchasing airline tickets online. *Journal of Hospitality & Leisure Marketing*, 13(2), 33-53.
- [11] Bardhi, F., & Eckhardt, G. M. (2012). Access-based consumption: The case of car sharing. *Journal of Consumer Research*, 39(4), 881-898.
- [12] Lamberton, C. P., & Rose, R. L. (2012). When is ours better than mine? A framework for understanding and altering participation in commercial sharing systems. *Journal of Marketing*, 76(4), 109-125.
- [13] Liang, L. J. (2015). Understanding Repurchase Intention of Airbnb Consumers: Perceived Authenticity, EWOM and Price Sensitivity (Doctoral dissertation).
- [14] Mitchell, V. W., & Harris, G. (2005). The importance of consumers' perceived risk in retail strategy. *European Journal of marketing*, 39(7/8), 821-837.
- [15] Fombrun, C. J., & Rindova, V. P. (2000). The road to transparency: Reputation management at Royal Dutch/Shell. *The expressive organization*, 7, 7-96.
- [16] Erdem, T., & Swait, J. (1998). Brand equity as a signaling phenomenon. *Journal of consumer Psychology*, 7(2), 131-157.
- [17] Tovey, M., & Masum, H. (2011). The reputation society.
- [18] Wang, Y., & Vassileva, J. (2003, September). Trust and reputation model in peer-to-peer networks. In *Peer-to-Peer Computing, 2003.(P2P 2003). Proceedings. Third International Conference on* (pp. 150-157). IEEE.
- [19] Hennig-Thurau, T., Gwinner, K., Walsh, G., & Gremler, D. (2004). Electronic word of mouth via consumer- opinion platforms: what motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18(1), 38-52.
- [20] Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism management*, 29(3), 458-468.
- [21] Buczynski, B. (2013). Sharing is good: How to save money, time and resources through

- collaborative consumption. New Society Publishers.
- [22] Hamari, J., Sjöklint, M., & Ukkonen, A. (2015). The sharing economy: Why people participate in collaborative consumption. *Journal of the Association for Information Science and Technology*.
 - [23] Leismann, K., Schmitt, M., Rohn, H., & Baedeker, C. (2013). Collaborative consumption: towards a resource-saving consumption culture. *Resources*, 2(3), 184-203.
 - [24] Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
 - [25] Rodrigues, R., & Druschel, P. (2010). Peer-to-peer systems. *Communications of the ACM*, 53(10), 72-82.