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Does Satisfaction of P2P Online Transportation Affect Consumer Willingness to Purchase Their Own Vehicles?

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Abstract:

The discussion about the platform ecosystem in the business model literature has been growing for the past few decades. The firms that operate in this context often disrupt the incumbent businesses through disruptive innovation with a multi-sided platform (MSP) business model, including a service-based sharing economy or peer-to-peer (P2P) services. However, there is still a limited number of studies that explore the disruptive potential of those business models from a consumer behavior perspective. Therefore, based on the phenomenon of the rapidly growing P2P online transportation in Indonesia, this study analyzes the further effects of consumer behavior changes towards the ownership intention of new private vehicles because of sharing economy usage. The results of the quantitative research approach by using PLS-SEM among 216 P2P online transportation users can conclude that there are significant differences regarding consumer willingness to purchase new vehicles among users who already own private vehicles and those who do not own vehicles. For those who already own vehicles, the perceived economic benefits of using P2P online transportation decrease consumer willingness to purchase new vehicles. On the other hand, satisfaction in using P2P online transportation affects the same aspects for the users without private vehicles. Interestingly, this satisfaction does not have a significant effect toward consumer willingness to

purchase new vehicles for the users who own private vehicles.

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1   Introduction

The growth of digital technology these days has resulted in significant shifts in the entrepreneurship sphere. Nambisan (2017) mentions that the intersection between digital technology and entrepreneurship (digital entrepreneurship) has broad implications in terms of less bounded entrepreneurial processes and outcomes as well as a less predefined locus of entrepreneurial agencies. One of the rising phenomena about digital entrepreneurship that is embodied with those implications is a sharing economy. A sharing economy is defined as P2P based activities of sharing, giving, or obtaining access to goods or services that are coordinated through a community-based online platform (Hamari, Sjoklint, & Ukkonen, 2016). Generally, sharing economy firms apply a multi-sided platform (MSP) business model that consists of various entrepreneurial agencies, especially micro-entrepreneurs. The MSP business model enables micro-entrepreneurs to offer services for their customers by leveraging their idle assets. Then, the platform takes a small fee for each service transaction between the micro-entrepreneurs and the customers.

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In recent years, the sharing economy firms in Southeast Asia have grown rapidly following the rapid economic growth of the developing countries within this region. This situation helps the big players between sharing economy firms such as Uber and Airbnb obtain significant growth. The trend also affects Southeast Asian firms such as Grab from Malaysia and Go-Jek from Indonesia to become unicorn startup companies with a valuation above $1 billion. These firms create huge disruptions for the incumbents with a more effective and efficient business model. The incumbents have difficulties in matching up the sharing economy business model with their traditional business model. Furthermore, they rarely make radical changes to their current business model.

In Indonesia, Go-Jek has opened up opportunities for about 200,000 micro-entrepreneurs to join their platform as entrepreneurial agencies or peers. This number could be achieved in a relatively short amount of time, around 1 year. Obviously, it is surprising if compared to the largest taxi company within this country, Blue Bird, which has a fleet of 20,000 vehicles after being in operation for more than 40 years. Interestingly, even though Go-Jek offered transportation related services in the beginning, the peers who joined the platform are not traditional taxi bike drivers. Commonly, they move from lower income jobs. If they have a motorbike with a complete license, they can join the platform as peers and get the facilities to offer Go-Jek services. Overtime, Go-Jek has expanded its business models to offer other services, including food delivery, shopping, goods delivery, massage, cleaning, and other services. It has become a platform that connects all kinds of services.

Similar with Go-Jek, all sharing economy firms take the form of a multi-sided platform (MSP) that utilizes crowd resources. High trust in crowd resources is essential to create a successful open innovation (Salampasis et al., 2015). For this reason, the nature of these MSP firms is decentralized high-impact capital. For example, the operating vehicles of Uber are owned by the drivers and rooms used in AirBnB and belong to the hosts. In this case, the firm does not need to provide capital and operating costs for production goods. Instead, it is converted to a relatively small percentage of transaction fees. This innovation from entrepreneurial activities strengthens the competitiveness of the new ventures up to a level that enables them to compete with traditional incumbent firms (Ferreira, 2017). The "good enough" products or services of MSP firms blur the lines between the traditional firms and marketplace platform. The institution-based capitalism has shifted to become crowd-based capitalism (Sundararajan, 2016). Furthermore, crowd-based resources provide more variety in the products and services that can lead to more consumption. To some extent, it may change consumer behavior towards the goods from an owning-based perspective to an access-based perspective (Lamberton & Rose, 2012).

The changing behavior because of sharing economy practices may lead to a disruption for incumbent firms. In the disruptive innovation theory, the disruption towards the incumbent starts with foothold customers and later it reaches mainstream customers (Christensen & Raynor, 2003; Keller & Husig, 2009; Govindarajan et al., 2011). A sharing economy or collaborative consumption (e.g. renting and lending) has been identified in previous studies to better understand the behavioral context such as satisfaction and future intention for the hospitality accommodation sector as well as the transportation sector (Cheng, 2016; Tussyadiah, 2016; Firnkorn & Muller, 2012). The disruption for the incumbent may happen when the future intention of sharing economy

users, especially the mainstream customers, drives them to substitute the incumbent products such as vehicles into emerging services such as P2P online transportation.

Based on the phenomena mentioned above, this study strives to examine the disruptive potential of the sharing economy platform from the changing consumer behavior perspective. Previous studies have mentioned about the changing behavior from owning things to accessing things because of an emerging sharing economy platform (Firnkorn & Muller, 2012; Lamberton & Rose, 2012). However, there is a lack of studies that explain the antecedents of changing behavior driven by sharing economy usage. In order to achieve the research objectives, this study aims to fill in this gap by raising the following research questions: What are the factors in a sharing economy context that decrease consumer willingness to pay for a new vehicle? In what conditions do those factors perform?

2 Theoretical Foundation

2.1 Sharing Economy

A sharing economy has become a hot topic in current business practices everywhere, including in an emerging economy context, because of its rapid growth that creates radical changes within the industry (Dredge & Gyimothy, 2015). This situation provides opportunities and challenges both in academics and practice (Guttentag, 2015; Pedersen & Netter, 2015; Dredge & Gyimothy, 2015).

In Indonesia, for example, sharing economy startups such as Go-Jek, Grab, and Uber have started to disrupt the established incumbents in the transportation industry. In a global context, Airbnb has surpassed international hotel chains, in terms of room availability and number of stays in a year (Clampet, 2015). In this matter, the sharing economy business model shifts the traditional business practices through access-based consumption (Schor & Fitzmaurice, 2015; Bardhi & Eckhardt, 2012; Shaheen et al., 2012; Belk, 2014), and also ease to start up a business for the peers due to low start-up costs (Nadler, 2014).

In the current sharing economy literature, there are growing discussions regarding the sharing economy business model, the nature of a sharing economy, as well as sustainability development within a sharing economy (Cheng, 2016). In the field, the fastest growing area in sharing economy literature is a business model that discusses its type, P2P renting, collaborative business models, their potential aspects (Bardhi & Eckhardt, 2012; Cohen & Kietzmann, 2014), sharing economy disruption (Cohen & Munoz, 2015, Lamberton & Rose, 2012), and also risk aversion (Santana & Parigi, 2015).

Another field, the nature of a sharing economy, discusses the use, accessibility, ownership, Internet-facilitation, and resource management issues such as social capital (Kopnina, 2017; Schor & Fitzmaurice, 2015; Bardhi & Eckhardt, 2012; Shaheen et al., 2012; Belk, 2014; Martin et al., 2015). Lastly, the sustainability side discussions of a sharing economy raise the issue about the relationship between innovation and sustainable social innovation (Heinrichs, 2013), economic activity generation that leads to social and environmental benefits, over-consumption awareness (Richardson, 2015), and also resistance to capitalist economic models through a sharing effort that includes

community, collaboration, and changing consumer mindsets (Albinsson & Yasanthi Perera, 2012).

It is a good starting point when it is possible to do research about a sharing economy from customer behavior perspectives and at an individual level (Tussyadiah, 2016). This study aims to add more empirical work that supports the basic understanding of post collaborative consumption from a customer behavior point of view.

2.2 Determinants of Satisfaction and Customer Willingness to Pay

According to Van der Heijden (2004), in giving a suggestion if ownership and sharing provide the same benefits, people may be more likely to opt for sharing. A sharing economy is enjoyable, interesting, and more likely to be used in the future (Van der Heijden, 2004). With a sharing system, people can have access to rooms, cars and bikes, and taxi services using a peer-to-peer system (Malhotra & Van Alstyne, 2014). Purchasing an asset such as a car will start to be less attractive if by participating in a sharing system, it will provide access on demand with reasonable prices (Van der Heijden, 2004). The reason why a sharing economy is accepted by people is because basically consumers want to own less but gain more (Bockman, 2013). It is cheaper and easier to access, we want to, and now we can are the reasons why people want to participate in a sharing system.

The existence of a sharing system can give people an alternative to access. As mentioned by Bhattacherjee (2001), if people can use a sharing economy, ownership seems less attractive, because people can feel the same benefits without having to buy it. People will be more engaged in collaborative consumption more frequently in the future (Ibid.).

From a consumer behavior perspective, the main core of the post-consumption phase it is focuses on customer satisfaction (Westbrook & Oliver, 1991). It was developed from the number of studies on customer satisfaction, especially about the antecedents and the consequences at the individual level (Zeithaml, 1988). Therefore, investigating the influential factors that determine customer satisfaction and willingness to purchase a car will help to cultivate a comprehension of post collaborative consumption (Tussyadiah, 2016).

This study investigates three factors which influence people in deciding to use a sharing economy. The first is perceived trust. As stated by Botsman and Rogers (2011), trust is one of the factors people want to use in a sharing economy. The second is perceived economic benefits. As revealed by Bock et al. (2005), a sharing system allows customers to access products with lower costs. The third is technology adoption. As shared by Molenaar (2016), a sharing economy is driven by digitalization. It involves a peer-to-peer exchange of tangible products, the transaction itself using digital platforms.

2.3 Hypothesis Development

Botsman and Rogers (2011) suggest that trust is the key to sustain sharing economy growth and success. Dellarocas (2003) also states that there are several factors for trust in a sharing economy context, including an owner's reputation and hospitality are keys. Previous studies show that reputation has a role as an important external factor in

determining an individual's trust and motivation to join a sharing system (Davenport & Prusak, 1998; Wasko & Faraj, 2005; Parameswaran & Whinston, 2007). Furthermore, trust can be maintained and developed by the security and dependability of the technology platform (Kini & Choobineh, 1998). In this study context, participation in a sharing economy is bolstered when the trust is ensured (Kamal & Chen, 2015). Trust between strangers is the key for both the customer and partner to participate in the platform. Satisfaction toward the service quality in a sharing economy is determined by the trust in peer-to-peer markets and rentals (Dellarocas, 2003). Hence, these concept explanations are formulated into hypothesis 1 as follows:

H1: Perceived trust has a positive and significant effect toward satisfaction.

A sharing system can also provide economic benefits for the customer. Economic benefits are one of the reasons why people want to participate in a sharing economy (Hamari et al., 2016; Tussyadiah, 2016). Sacks (2011) mentioned that a sharing system allows customers to access products with an affordable cost. Furthermore, participating in a sharing system can also be rational through utilizing maximum behavior from the consumer that replaces exclusive ownership of goods with a lower cost option (Bock et al., 2005). Extrinsic rewards, in the form of saving money and time, also have a role in determining customer satisfaction. They have a positive influence on people participating in a sharing economy (Bock et al., 2005). Hence, hypothesis 2 can be formulated as follows:

H2: Perceived economic benefits have a positive and significant effect toward satisfaction.

Technology has a massive impact in the development of online transportation. The rise of smartphone technology adoption, which includes the usage of mobile applications, websites, social media, as well as online payments are strong factors in sharing systems (Molenaar, 2016; Heinrich, 2013). Generally, MSP firms that adopt a sharing economy are driven by digitalization that includes a P2P exchange of tangible products and transactions through digital platforms (Molenaar, 2016). Besides digital platforms, social media adoption also has a big impact on the growth of a sharing economy (Heinrich, 2013; Galbret, Ghosh, & Shor, 2012; Gansky, 2010; Henning & Sattler 2007). The user satisfaction is determined by those technology adoptions (Molenaar, 2016; Heinrich, 2013). Indonesia, especially in Jakarta, is one of the countries with a huge number of Internet users. These users tend to follow the digital trends easily. Thus, these concept explanations can be formulated into hypothesis 3 as follows:

H3: Technology adoption has a positive and significant effect toward satisfaction.

From an economic benefit perspective, a sharing economy also has other consequences. When the access cost is lower than the cost of ownership, the ownership becomes less attractive (Horton, 2016; Santoso & Erdaka, 2015). Therefore, these concept explanations can be formulated into hypothesis 4 as follows:

H4: The perceived economic benefits in using sharing economy services have a negative and significant influence toward consumer willingness to purchase new private vehicles.

From the perspective of several empirical works, customer satisfaction will lead to a strong willingness to purchase (Oliver, 1980; Tussyadiah, 2016). Therefore, in this study, customer satisfaction as a post sharing economy usage phase is conceptualized as the main motive toward willingness to purchase. Hence, these concept explanations can be formulated into hypothesis 5 as follows:

H5: Satisfaction in using sharing economy services has a negative and significant influence toward consumer willingness to purchase new private vehicles.

3 Methodology

3.1 Context

The context of this research focuses on recent sharing economy practices in an emerging market, especially in Indonesia. While the most prominent issue regarding sharing economy practices in a developed market lies in triple bottom line sustainability (Martin, 2016; Frenken, 2017; Parguel et al., 2017; Bocker & Meelen, 2017), its practice in an emerging market is mostly driven by economic motives (Santoso, 2015). Sharing economy firms have an advantage in Indonesia, since this country has a huge population that needs higher incomes. Long before the digital sharing economy platform emerged, the sharing economy practice in Indonesia had already been established as an informal economy based on individual resources or excess capacity, such as private teachers, conventional motorbike taxis, massage services, gardeners, freelance blue-collar workers, artists, writers, freelance couriers, social donations, etc. These opportunities triggered some entrepreneurs to create agencies that can act as a mediator between the customers and those individual crowd resources. They found customers under their firm umbrella and passed the work completion to the crowd that they hired through monthly payments or project-based payments.

Along with the growth of e-commerce in the late 2000s, the sharing economy practices started to be mediated by a digital platform. Some of the initiatives are provided for free by some communities such as nebeng.com that provides carpool services. Go-Jek and other motorbike taxi firms are the pioneers of peer-to-peer sharing economy platforms that utilize digital technology to provide commercial sharing services from the crowd to the users. Unlike the traditional motorbike taxi services that provide transportation services only, those platforms expand the services to local point-to-point courier services. The huge number of motorbike owners in Jakarta triggered those platforms to begin their operations. Starting from this point, the era of O2O (online-to-offline) services emerged. Another sharing economy platform with various services started to serve the customers in Indonesia. They range from an outsource task service (sribulancer.com, upwork.com, freelancer.co.id), financial service (modalku.com, amartha.com, uangteman.com), educational service (IndonesiaX, ruangguru.com), virtual

assistant (YesBoss, Halo Diana, Bang Joni), blue-collar service (Go-Clean, seekmi, beres.id), lodging service (AirBnB, Home Away, Couchsurfing), social donation or crowdfunding service (kitabisa.com, wujudkan.com), online news platform (hipwee, IDNtimes), to peer-to-peer rental services (babyloania.com).

Following the potential of a local firm's (Go-Jek) early growth, multi-national sharing economy firms, Grab and Uber, launched into the Indonesian peer-to-peer transportation services market. In the beginning, Grab offered a taxi booking app service, while Uber offered a similar service with its worldwide car-sharing service. After Go-Jek launched its smartphone allocation in early 2015 and secured remarkable growth both in its drivers and the number of transactions, Grab and Uber followed Go-Jek's step by providing similar services. Currently, these three applications are the most popular apps among the sharing economy firms in Indonesia (Google, 2016; Apple, 2016). Because of the network effects within multi-sided platforms, the informal economy conducted by micro-entrepreneurs has grown rapidly under the formal institution (Bharadwaj, 2013).

In the current decade with Indonesia becoming one of the fastest growing countries along with several countries from emerging markets, the consumption of the citizens has increased significantly. The ownership of items including vehicles has become more important for them because it can fulfil not only functional needs but also increase the social status. As a result, the traffic in major cities like Jakarta has become crowded along with the growth of vehicles from Jakarta itself and also from the surrounding cities such as Bekasi, Bogor, Depok, and Tangerang, especially during weekdays. The emergence of P2P online transportation provides alternative solutions for the citizens. The services that use motorbikes let the citizens arrive at their destinations faster. On the other hand, the services that use cars also provide several benefits such as motorists do no need to drive during traffic jams or have to deal with finding a parking spot. Currently, they are accustomed to using those P2P online transportation services for daily transportation needs. Some of them even use the services more often than their private vehicles. The consumer behavior has changed because the sharing economy practice has already started in this context (Parker, Van Alstyne, & Choudary, 2016).

3.2 Data Collection and Sample

The data was collected from a sample of P2P online transportation services in Jakarta, because as a major city and the center of economic activities in Indonesia, the sharing economy platform has grown significantly in this area. The respondents were selected based on several common relevant profiles, such as commute every day and use P2P online transportation services periodically. A purposive sampling was used from a population with specific criteria. Thus, every sample had the same standards to be chosen (Malholtra, 2008). The primary data of this research was collected online using social media (Twitter) as well as a direct data collection method by using structured questionnaires. In order to get the directed and targeted respondents, the social media followers of Grab, Go-Jek, and Uber were approached to fill-in the questionnaires. The duration of the data collection lasted two months, from November 2016 until the end of December 2016. As a result, 216 respondent data was collected through an electronic survey by adopting a maximum likelihood sampling with a range of 100-200 respondents (Hair et al., 2010) to achieve the statistical requirements of Structural Equation Modeling. The detailed information about the respondents can be seen in Table 1 below.

Table 1. Demographic Data

Characteristics	Total (out of 216)	Sample Percentage
Gender		
Male	48	22.22%
Female	168	77.78%
Frequency in using P2P online transportation		
Every day	24	11.11%
Several times a week	92	42.59%
Several times a month	100	46.30%
Most Used P2P Online Transportation Brand		
Go-Jek	76	35.19%
Grab	63	29.17%
Uber	46	21.30%
Both Grab and Go-Jek	12	5.56%
Both Go-Jek and Uber	1	0.46%
Both Grab and Uber	10	4.63%
Grab, Go-Jek, and Uber	7	3.24%
Missing	1	0.46%
Has a Private Vehicle?		
Yes	122	56.48%
No	94	43.52%

3.3. Measurement

The study applied a theoretical reasoning about the constructs that were operationalized from the scales with tested reliability and validity derived from the previous literature (Lamberton & Rose, 2012; Tussyadiah, 2016; Firnkorn & Muller, 2012). The research questions from the literature were adjusted in order to make them fit into the P2P online transportation context. All of the measurement items for the construct operationalization are presented in Appendix A. These questions are expressed by using a 7-point Likert scale. A pilot study was conducted by using relatives in Jakarta who had

ever used P2P online transportation services as respondents to ensure the face validity. Based on this pilot study, several measurement items were refined or deleted.

The data analysis was conducted by using a two-step approach, including an adequacy test of the measurement model with a confirmatory factor analysis (CFA) and adequacy test of the structural model for the hypothesis testing (Chin, 1998). The goodness-of-fit criteria in this research that measure how the measurement items fit with the latent variables are based on Henseler et al. (2014), including SRMR below 1 and NFI close to 1. For the construct validity, the criteria for the loading factors should be above 0.6. Furthermore, the convergent validity criteria should be fulfilled with an average variance extracted above 0.5. Finally, the discriminant validity criteria should be achieved with a composite reliability (CR) score above 0.7, and the square roots of the AVE scores should be higher than the inter-construct correlations (Chin, 1998).

4 Research Findings

The PLS-algorithm in this study shows that the overall factor model fits with the data well based on the criteria of Chin (1998) and Henseler et al. (2014) (i.e., SRMR = 0.096, NFI = 0.773). All of the constructs have been tested to fulfil the measurement model criteria (see Table 2). Their composite reliability (CR) scores are above 0.70. The discriminant validity is indicated by the score of all the loading factors above 0.6, and the latent variable correlations between each construct are below the square roots of AVE of the associated constructs (Chin, 1998). Meanwhile, the convergent validity is also indicated by the AVE scores that reach above the 0.5 threshold point (Fornell & Larcker, 1981).

Table 2. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Consumer Willingness to Purchase	0.938	0.943	0.953	0.802
Economic Benefit	0.837	0.844	0.902	0.754
Satisfaction	0.698	0.699	0.832	0.622
Technology Adoption	0.855	0.878	0.897	0.637
Trust	0.797	0.802	0.867	0.621

Correlation Matrix (SQRT of AVE)

	Consumer Willingness to Purchase	Economic Benefit	Satisfaction	Technology Adoption	Trust
Consumer Willingness to Purchase	0.896				
Economic Benefit	0.385	0.869			
Satisfaction	0.379	0.670	0.789		
Technology Adoption	0.159	0.521	0.717	0.798	
Trust	0.224	0.365	0.558	0.602	0.788

The structural model with the overall P2P online transportation users (Fig. 1) shows that satisfaction (R^2 = 0.652, p-value = 0.000) is determined by the positive significant effect of perceived trust (β = 0.166, p-value = 0.002), perceived economic benefits (β = 0.395, p-value = 0.002), and technology adoption (β = 0.411, p-value = 0.000).
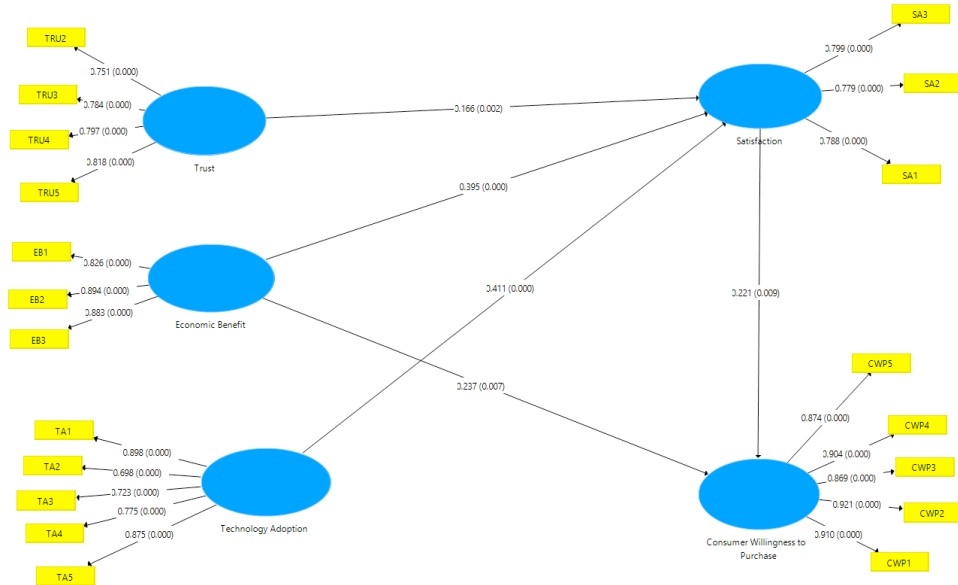
***Fig 1.** Research Model with Overall Respondents*

These results support hypotheses H1, H2, and H3. Satisfaction (β = 0.411, p-value = 0.009) and perceived economic benefits (β = 0.411, p-value = 0.009) also become negative determinants of consumer willingness to purchase new vehicles (R^2 = 0.175, p-value = 0.000). It shows that sharing economy usage decreases the intention of owning a new vehicle because of the satisfaction while using the services and the perceived economic benefits in comparison with owning a private vehicle. Therefore, it supports hypotheses H4 and H5.

In order to identify the different behaviors among the users, a further study was conducted by creating a separate structural model test for two correspondent user groups. The first correspondent group consisted of users who already own a private vehicle (N = 122), while the second group consisted of those who do not have a private vehicle (N = 94). Fig. 2 and Fig. 3 present the structural model of the first group and the second group, respectively.
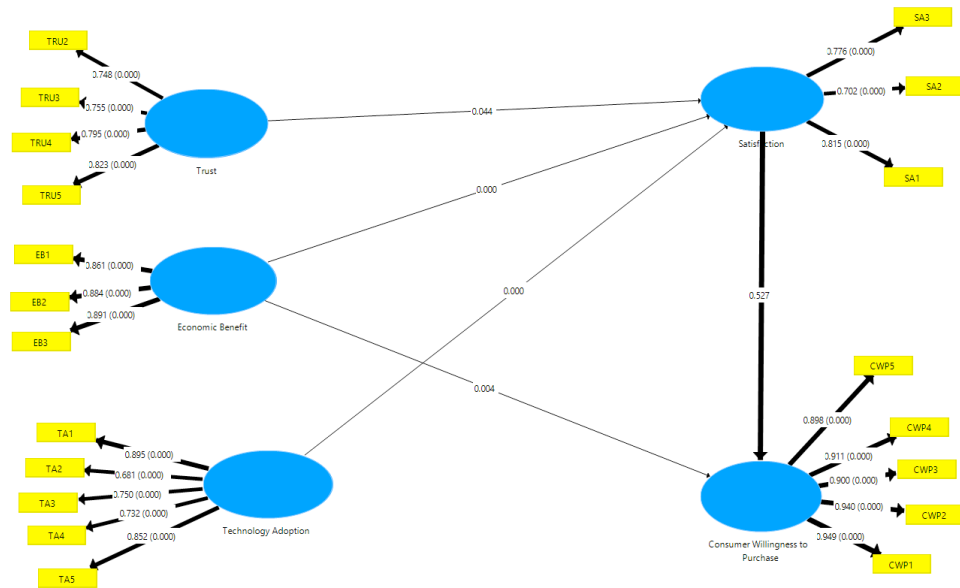
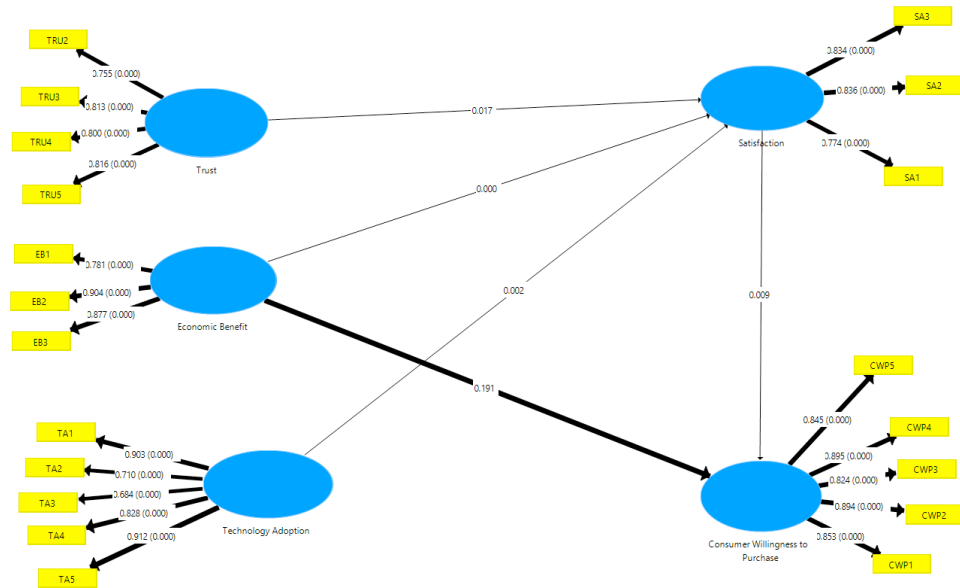**Fig 2.** *Research Model with Respondents Who Have Private Vehicles*

Fig 3. *Research Model with Respondents Who Do Not Have Private Vehicles*

For the first correspondent group (has a private vehicle), the determinants of satisfaction (R^2 = 0.657, p-value = 0.000) are similar with the overall correspondent group that consist of the positive significant effects of perceived trust (β = 0.135, p-value = 0.044), perceived economic benefits (β = 0.321, p-value = 0.000), and technology adoption (β = 0.509, p-value = 0.000). However, contrary with the structural model test

with the overall correspondents, satisfaction (β = 0.074, p-value = 0.527) does not provide a significant influence toward consumer willingness to purchase new vehicles (R^2 = 0.136, p-value = 0.000). Meanwhile, similar with the previous structural model test, the negative influence from the perceived economic benefits (β = 0.317, p-value = 0.004) are still present toward this construct. This result is consistent with previous studies that explain about how the car-sharing business model encourages the people to give up their car ownership because car-sharing is cheaper and has a better lifestyle perspective (Firnkorn & Muller, 2012). The data implies that even though the private vehicle owners feel satisfied in using P2P online transportation services, their behavior toward ownership intention does not change. However, the efficiency of using a P2P online transportation service that avoids the cost of ownership seems more appealing for them. It can decrease the intention of purchasing a second vehicle. Thus, these findings support hypotheses H1, H2, H3, and H4, but do not support hypothesis H5.

The second correspondent group (without a private vehicle) also provides different results. While the determinant of satisfaction (R^2 = 0.671, p-value = 0.000) is still similar with the structural model test for the overall respondent group that includes the positive significant effect of perceived trust (β = 0.202, p-value = 0.017), perceived economic benefits (β = 0.470, p-value = 0.000), and technology adoption (β = 0.305, p-value = 0.002), the negative determinant of consumer willingness to purchase new vehicles (R^2 = 0.271, p-value = 0.000) only comes from satisfaction (β = 0.074, p-value = 0.527). The perceived economic benefits (β = 0.186, p-value = 0.191) do not have a significant influence on the construct. It implies that the respondents who do not have a private vehicle yet give up the intention to have one because they are satisfied in using P2P online transportation services, and the services can fulfil their transportation needs. They do not compare the economic benefits with the private vehicle cost of ownership because they do not have the burden experience of having a vehicle. Therefore, it can be concluded that these findings support hypotheses H1, H2, H3, and H5, but do not support hypothesis H4. The hypothesis summary for the structural model testing with overall, the first group and second group of respondents is presented in Table 3.

Table 3. Hypothesis Summary

Overall Respondent

Hypothesis	Original Sample (O)	P Values	Conclusion
Economic Benefit -> Consumer Willingness to Purchase	0.237	0.007	Supported
Economic Benefit -> Satisfaction	0.395	0.000	Supported
Satisfaction -> Consumer Willingness to Purchase	0.221	0.009	Supported
Technology Adoption -> Satisfaction	0.411	0.000	Supported
Trust -> Satisfaction	0.166	0.002	Supported

Respondents who Have Vehicles

Hypothesis	Original Sample (O)	P Values	Conclusion
Economic Benefit -> Consumer Willingness to Purchase	0.317	0.004	Supported
Economic Benefit -> Satisfaction	0.321	0.000	Supported
Satisfaction -> Consumer Willingness to Purchase	0.074	0.527	Not Supported
Technology Adoption -> Satisfaction	0.509	0.000	Supported
Trust -> Satisfaction	0.135	0.044	Supported

Respondents who Do Not Have Vehicles

Hypothesis	Original Sample (O)	P Values	Conclusion
Economic Benefit -> Consumer Willingness to Purchase	0.186	0.191	Not Supported
Economic Benefit -> Satisfaction	0.470	0.000	Supported
Satisfaction -> Consumer Willingness to Purchase	0.370	0.009	Supported
Technology Adoption -> Satisfaction	0.305	0.002	Supported
Trust -> Satisfaction	0.202	0.017	Supported

5 Conclusion and Recommendations

The sharing economy or collaborative consumption (e.g. renting and lending) has been identified in several previous studies to better understand the behavioral context such as satisfaction and future intention for the hospitality accommodation as well as transportation sectors (Cheng, 2016; Tussyadiah, 2016; Firnkorn & Muller, 2012). A disruption for the incumbent may happen when the future intention of sharing economy users, especially the mainstream customers, drives them to substitute the incumbent product such as vehicles with emerging services, i.e. P2P online transportation.

Investigating the influential factors that determine customer satisfaction and willingness to purchase a car will help to cultivate the comprehension of post sharing economic activities (Tussyadiah, 2016). Thus, this study aimed to investigate several factors including trust, economic benefits, and technology adoption toward customer satisfaction. The study applied a theoretical reasoning about the constructs that were operationalized by the scales with tested reliability and validity derived from previous literature (Lamberton & Rose, 2012; Tussyadiah, 2016; Firnkorn & Muller, 2012). The goodness-of-fit criteria in this research that measure how measurement items fit with the latent variables are based on Henseler et al. (2014), including SRMR below 1 and NFI close to 1. For the construct validity, the criteria for the loading factors should be above 0.6. Furthermore, the convergent validity criteria should be fulfilled with an average variance extracted above 0.5. Finally, the discriminant validity criteria should be achieved with a composite reliability (CR) score above 0.7, and the square roots of AVE scores are higher than the inter-construct correlations (Chin, 1998).

The results of the PLS-SEM approach among 216 P2P online transportation users conclude that there are significant differences regarding consumer willingness to purchase new vehicles among the users who already own private vehicles and the users who do not have vehicles. These findings demonstrate that what matters most is for those who already own vehicles, the perceived economic benefits of using P2P online transportation decrease consumer willingness to purchase new vehicles. On the other hand, satisfaction in using P2P online transportation has the same effect for users without private vehicles. Interestingly, this satisfaction does not have a significant effect toward consumer willingness to purchase new vehicles for the user group members who own private vehicles. Thus, in further research, a deep identification of additional variables is required in order to clarify the phenomenon. For example, perceived social benefits that have a role as a determinant factor of customer satisfaction in P2P hospitality because of the engagement between the host and the guest (Tussyadiah, 2016) may also have an effect toward customer satisfaction or even consumer willingness to purchase new vehicles since the drivers and the customers also have some engagements. Furthermore,

the perceived sustainability aspect may also become an antecedent of those variables. If in the previous studies with a P2P hospitality context the perceived sustainability does not have a direct effect toward satisfaction (Tussyadiah, 2016), for P2P online transportation the results may be different since the vehicles have a more significant environmental effect than housing.

All in all, the results of this study provide theoretical and managerial implications, especially for service marketing. This study demonstrates the main issues of the willingness to purchase after being satisfied with collaborative consumption. The service providers of P2P transportation can gain more advantages from this study by understanding the influential factors that lead to customer satisfaction of collaborative consumption. Since this study investigated the influential factors of customer satisfaction of collaborative consumption in the transportation industry in Indonesia, future research should replicate the study in more than one service industry and setting to further test and validate the model.

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APPENDIX A. Measurement items

Construct	Question
Perceived Trust	1) I enjoy and do not feel worried to give my personal data when I register myself as a member. 2) I am sure that I will get the same security, comfort, and pleasure when I use P2P online transportation compared to using a private vehicle. 3) By using P2P online transportation, I am sure that the driver will serve me well and be friendly. 4) The driver rating system makes me feel safe to use P2P online transportation.
Perceived Economic Benefits	5) I can save more money by using P2P online transportation compared to purchasing a private vehicle. 6) The cost of P2P online transportation is more reasonable and affordable than the cost of purchasing a private vehicle. 7) I benefit from using P2P, because I do not need to fulfil ownership duties such as pay car taxes or monthly services.
Technology Adoption	8) The availability of the payment method (either by cash, debit, or credit card) is one of the reasons for me to use P2P online transportation, since I am accustomed to using this method. 9) Being able to order by phone makes me interested to use P2P online transportation, since I am accustomed to making phone calls. 10) The variety of service provider application offers on my phone (Google Playstore / iPhone App Store) make me interested to use P2P online transportation. 11) Their advertising through social media makes me interested in using P2P online transportation, since I am accustomed to using social media services. 12) I am interested in using P2P online transportation because I often make purchases via e-commerce.
Satisfaction	13) I feel happy and satisfied with using P2P online transportation. 14) For me, accessing P2P online transportation is more satisfying than purchasing a private vehicle.

Does Satisfaction of P2P Online Transportation Affect Consumer Willingness to Purchase Their Own Vehicles?

	15) In using P2P online transportation, I am satisfied since I can access anything easily.
Customer Willingness to Purchase Private Vehicles	16) I will not buy a private vehicle if I can use P2P online transportation.
	17) I prefer to use P2P online transportation rather than purchase my own private vehicle.
	18) I will always consider the existing P2P online transportation before deciding to purchase a private car or bike.
	19) Even if there is a car or bike with a cheap price, I will still prefer to use P2P online transportation.
	20) I prefer to use P2P online transportation as my first option to commute rather than purchase a private vehicle.