

Exploring the Impacts of Sharing Economy Drivers on Consumers' Usage Intention

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ABSTRACT

In recent years, people have begun to use sharing economy platforms such as Airbnb and Uber. The rapid development of such sharing economy platforms has thus become an important topic. Studies regarding the sharing economy have discussed resource providers but not users. Therefore, this study constructs a model to measure the components of sharing economy drivers and the correlation between those drivers and usage intention, in addition to exploring the differences in the composition of drivers and usage intention between Airbnb and Uber. The survey method was an online questionnaire. The sample analysis uses partial least squares regression to verify the hypothesis and analyze the components that form the sharing economy for drivers. According to the results, sharing economy drivers—Societal drivers, Economic drivers, Technological drivers, affect usage intention, and different combinations of sharing economy components, such as enjoyment, network externalities, perceived quality, cost saving, and efficiency, exist in Airbnb and Uber. For the reference of relevant academic research and practical operation in the future.

Keywords: Sharing economy, Societal drivers, Economic drivers, Technological drivers, Usage intention

INTRODUCTION

People's consumption habits are no longer one-way purchases with companies and businesses. The rise and popularity of the Internet and smartphones have led to the formation of two-way transactions with other buyers, driving the formation of what is known as the "sharing economy." The sharing economy redistributes unused resources. Through Internet platforms and mobile devices, consumers can borrow resources from others at a lower cost. Someone who owns resources has the opportunity to make secondary use of their items and obtain corresponding rewards. For example, Airbnb users can use its platforms and apps to rent their homes to other users who wish to stay in them.

The sharing economy was considered by Time (2011) magazine as one of the 10 creative ideas for changing the world. According to the statistics for eMarketer (2016), more than half of Internet users agree that the sharing economy is positive for consumers. However, sharing is not a new model. The rise of the sharing economy was driven by three areas: society, the economy, and science and technology (Owyang, Tran, & Silva, 2013). Using a web platform or app in the sharing economy promotes new economic trends through interaction with others. Such usage also increases the channels available for consumers and others to communicate and satisfies individuals' desire for social interaction. Convenient access to goods or services can more effectively motivate high-value but low-usage products or services, creating value for secondary use (Finley, 2013). This can also reduce the prices of products or services. According to the survey conducted by Owyang, Samuel, and Grenville (2014), users choose to use the sharing economy to trade with others for reasons such as convenience, price, and quality. PwC (2015) proposed that the key factors for the development of the sharing economy are trust, participation, and convenience. These factors may drive consumers to use a shared platform for transactions.

The sharing economy has become a key development in modern society. To date, most studies have examined those who provide resources for the sharing economy, less research focusing on the people who use them, for example, discuss the factor that affects users using sharing economy platforms and the barrier of use. Therefore, this study examines the factors that influence consumers to use products or services provided by shared platforms; specifically, it examines whether social, economic, and technological drivers affect consumer's intention to use the sharing economy, and whether different shared platforms have different driving forces. The objectives of this study are as follows:

1. Through a literature review, this study explores the components of social, economic, and technological drivers in the sharing economy, and it establishes

- a measurement framework that is used to measure the components of sharing economy drivers and the correlation between the drivers and usage intention.
2. To examine the user relationships between sharing economy drivers and usage intention to compare the differences in the composition of such drivers and usage intention between Airbnb and Uber. Conclusions and recommendations in theory and practice are then presented.

THEORETICAL BACKGROUND

Sharing Economy

The sharing economy was first proposed by Felson and Spaeth (1978). To survive, people exchange goods or services, and these resources are constantly reused in a sharing system. Originally, the sharing economy was a general concept with no consistent definition that was nonetheless widely accepted. With the advance of information technology, the sharing economy has allowed for existing resources to be more efficiently utilized. Belk (2014) proposed that the sharing economy is a method through which people can use the Internet and pay to share resources. The supplier rents goods or services to users. Botsman (2015) defined the sharing economy as a free or fee-based network platform to share assets or services that are not being fully utilized. The sharing economy involves technology being used to share unused items or services with others who require them, thereby reducing wasted resources and contributing to sustainable environmental development. This can also recreate the economic benefits of goods or services. The sharing economy covers a range of industries—the hospitality, retail, transportation, and entertainment industries may all have idle resources that can be shared with others (PwC, 2015).

The essence of the sharing economy lies in the creation of economic benefits as well as value for society (Kramer & Porter, 2011). For example, users can use Airbnb to rent unused rooms to consumers who require them, thereby allocating unused resources to those in need. The sharing economy is an innovative method for meeting the needs of society (Markopoulos & Vanharanta, 2015). In addition, information systems in the sharing economy are also indispensable (Robles-Flores & Kulkarni, 2005). Through online platforms, goods and services are matched with users who require them.

The sharing economy is not new, but its recent development has been driven by societal, economic, and technological drivers, and it has produced tremendous changes. The interconnected lives of modern consumers have caused the sharing economy to flourish (Owyang et al., 2014; Rick, 2013). Population growth and the popularity of mobile devices and social networks have resulted in a sharing economy that makes sharing more convenient and efficient, as well as allowing products or services to be

reused. Society, the economy, and science and technology have been indispensable in promoting the sharing economy. Therefore, this study explores the components of the societal, economic, and technological drivers mentioned by Owyang et al. (2014) and Rick (2013) that influence consumers in the sharing economy. Specifically, the relationship between sharing drivers and usage intention of the sharing economy is analyzed.

Societal Drivers

As the global population increases, supply and demand also increase. For many high-density areas, the sharing economy has made life easier (Rinne, 2013). However, people are also increasingly realizing that the environment is affected by consumption habits, and many companies are focusing on how to make a more sustainable society (Kramer & Porter, 2011). Based on past literatures, this study explores the composition of societal drivers in the sharing economy and its impact on users based on the following elements: sustainability, enjoyment, reputation, trust, user–supplier relationship, and network externalities.

Sustainability

Rapid social development has led to increasing awareness of green and sustainable consumption (Schuitema & Groot, 2015). The sharing economy has been considered a highly sustainable model of development (Prothero et al., 2011) with a positive impact on the environment (Möhlmann, 2015) because unused resources can be rented to others. Thus, not only can the sharing economy improve resource utilization but also reduce damage to the environment. When consumers use sharing economy services, they feel that they are contributing to sustainable development by avoiding wasted resources and excessive production (Hamari, Sjöklint, & Ukkonen, 2016).

Enjoyment

Kim, Chan, and Gupta (2007) defined online entertainment as the use of products over the Internet that yield enjoyment. Whether sharing technical resources or using social networks, such products make users feel happy. Using the Internet in the sharing economy enables buyers and sellers to trade. Sharing products or services can also further users' enjoyment of social networks (Hamari et al., 2016).

Reputation

Doney and Cannon (1997) defined reputation as the degree to which companies and consumers consider suppliers to be honest and caring toward customers. Wasko and Faraj (2005) discussed why users are willing to share knowledge online, noting that people like to contribute because they want to improve their reputation. These findings show that reputation is crucial to supply and demand. The sharing economy was

established based on supply and demand; therefore, a supplier's positive or negative reputation defines consumer behavior.

Trust

Trust provides social adhesion that enables the sharing economy to function without friction (World Economic Forum, 2013). Research has shown that trust is an essential element in the operation of e-commerce (Kim, Ferrin, & Rao, 2009). The trust among consumers can promote sharing in society. Without trust, the value provided by resources cannot be effectively used (Finley, 2013), and the utility of sharing cannot be maximized. Therefore, trust allows resources to be utilized between the supply and demand sides of the sharing economy.

User–supplier relationship

Good relationships mean that interactions with others can be improved in the sharing process (Bock et al., 2005). In sharing economy services, the relationships and interactions between users and suppliers have positive effects on customer satisfaction (Cho & Bokyeong, 2016). Therefore, user–supplier relationships may also affect consumers' use of sharing economy platforms.

Network externalities

Network externality refers to the value obtained by a user from a product or service. In addition to its own influence, it also affects the use of a product or service by other users. The externality of the network was divided into two types: Direct network externality, indirect network externality (Katz & Shapiro, 1985). Many products or services are affected by the externalities of networks. In social networking sites, research has confirmed that users influence the use of social networking sites because of their externalities (Lin & Lu, 2011). Many sharing economy platforms have utilized social networking platforms or user recommendations to help consumers discover the platform and use it. Therefore, this study hypothesizes that network externalities also affect consumers' intention to use the sharing economy.

In summary, societal drivers of sharing economy use are consumers' awareness of the impact of consumption habits on the environment and their eagerness to enhance social connections with others. This study will explore the relationship between social driving forces in the sharing economy and the constituent elements of sustainability, enjoyment, reputation, trust, user–supplier relationship, and network externalities.

Economic Drivers

In terms of the economy, as production costs continue to increase, prices continue to rise, and consumers want to obtain resources at a lower cost. As a response, many sharing economy platforms have emerged, which offer consumers the possibility of earning income and financial independence by employing their unused assets to earn

extra income. Convenient access to goods and unused assets was beneficial to both parties involved in a transaction. This effectively stimulates the market for high-value but low-usage products or services, and it creates opportunities for reuse (Finley, 2013). Based on past literatures, this study explores the composition of economic drivers in the sharing economy and its impact on users based on the following elements: uniqueness, variety, perceived quality, convenience, and cost saving.

Uniqueness

In the sharing economy, consumers may seek out unique products or services (Hawlitshchek, Teubner, & Gimpel, 2016). For example, Airbnb offers many types of accommodation for users and allows them to choose according to their preferences. PwC (2015) noted that the sharing economy of accommodation can attract consumers by providing lower prices, in addition to offering consumers unique experiences and choices. Therefore, when using sharing economy services, consumers can translate their desire for unique products or services into usage intention.

Variety

Value in the economy is generated by products and services. A variety of products and services drives consumers' curiosity (Hawlitshchek et al., 2016). Kim, Yoon, & Zo (2015) proposed that diversified consumer behavior in the sharing economy is a manifestation of the pursuit of value. The diversity of products or services is the motivation for user engagement in the sharing economy, particularly for consumers who are curious regarding sharing economy models; therefore, consumers are more likely to choose to use sharing economy platforms due to the variety of products or services they provide.

Perceived quality

Zeithaml (1988) proposed that perceived quality refers to an overall assessment of a product after a consumer has used it and judged its internal and external attributes. Chapman and Wahlers (1999) defined perceived quality as a positive evaluation of a product or service. Therefore, after consumers use sharing economy platforms, they form a perceived quality of the products or services provided, which affects their usage intention.

Convenience

A survey by Owyang et al. (2014) highlighted that the primary motive for consumers to share was convenience. Compared with previous trading models, consumers often feel that sharing economy platforms are more convenient. Rohm and Swaminathan (2004) defined convenience as reducing the time and effort consumers spend on transactions. In e-commerce-related research, convenience was confirmed as a primary motivation for consumers when they shop. Platforms in the sharing economy quickly pair two parties through the Internet, saving consumers time during

transactions. Thus, this study considers convenience as one of the factors that motivate consumers' usage intention of the sharing economy.

Cost saving

Lower prices for products or services are likely to make customers react positively (Sweeney & Soutar, 2001). Moreover, cost savings are considered personal benefits derived from products or services (Hamari et al., 2016). Mont (2004) proposed that consumers who use car sharing choose to do so because they can save on their personal costs. Hamari et al. (2016) believed that the economic benefits of the sharing economy can have a positive impact on consumers. Compared with other platforms, the products and services provided by platforms in the sharing economy are usually cheaper. Thus, consumers may choose sharing economy platforms for cost savings.

In summary, economic drivers refer to whether products or services satisfy consumers' expectations and desire for cost reduction. And the paper will explore the relationship between economic driving forces in the sharing economy and the constituent elements of uniqueness, variety, perceived quality, convenience, and cost saving.

Technological Drivers

In terms of technology, sharing idle resources and trading with others requires the use of mobile device apps and social networking platforms (Rick, 2013). A combination of the Internet of Things and new payment system technologies has begun to eliminate barriers that may be encountered during sharing, thereby increasing convenience and reducing costs. With the advancement of mobile payment system technology, most sharing economy companies and consumers have embraced e-commerce and payment platforms because they are more efficient for both parties involved in the process (Finley, 2013). Based on past literatures, this study explores the composition of technological drivers in the sharing economy and its impact on users based on the following elements: efficiency, design, functionality, and mobility.

Efficiency

Advancements in science and technology have led people's consumption patterns to shift from traditional modes to the Internet. The factors that influence consumers' use of the Internet are convenience, efficiency, and trust in obtaining information (Choudhury & Karahanna, 2008). The definition of efficiency in online consumption is that looking for products or services online reduces search speed compared with using physical stores (Parasuraman et al., 2005). When consumers cannot quickly locate the correct product or service on a shared platform, they might choose to use a different platform. Therefore, this study measures the efficiency of sharing economy platforms.

Design

A study by Wolfinbarger and Gilly (2003) noted that the design of websites is vital at attracting consumers browsing the Internet. Interface design refers to qualities such as appropriate fonts, colors, and graphics on websites (Wang & Liao, 2007). The sharing economy runs through transactions on websites or apps; therefore, the design of a sharing platform is crucial. This study thus hypothesizes that design affects consumers' use of the sharing economy.

Functionality

Functionality refers to the technology powering a website, and it is the most basic requirement for any website (Barrera et al., 2014). Papacharissi and Rubin (2000) argued that being able to easily search for information was especially important to Internet users. Therefore, the functionalities defined in this study are the basic functions and search capabilities of sharing economy websites and apps.

Mobility

Mobility can be defined as the ability for users to use a website or app at any location through the Internet or a mobile device (Clarke, 2001; Au & Kauffman, 2008; Liébana-Cabanillas, Marinković, & Kalinić, 2017). The popularity of mobile devices and the rapid development of technology have made consumers increasingly accustomed to using mobile devices for consumption. This is also true of the sharing economy. Research has revealed that the convenience of mobility has a positive and significant effect on consumers' intentions for using mobile payments (Schierz, Schilke, & Wirtz, 2010).

In summary, technological drivers are defined as the motives that drive consumers' usage intention of sharing economy platforms due to the advancement of information technology. This study will explore the relationship between technological drivers driving forces in the sharing economy and the constituent elements of efficiency, design, functionality, and mobility.

Usage Intention

Intention refers to predicting someone's individual behavior. Ajzen and Fishbein (1975) defined consumer intention as being influenced by attitudes and subjective norms whenever consumers engage in certain behaviors, reflecting their willingness to engage in a particular behavior. In the literature, intention has mostly been used to explore the success or failure of a business and whether a customer purchased from it. Intention is thus related to consumer behavior.

Consumer behavior refers to the decision-making process that consumers use when they purchase goods or services. Walters and Gorden (1970) defined consumer behavior as the relevant purchasing decision-making behavior when people buy goods or

services. Consumer behavior includes how individuals engage in the selection, purchase, use, and disposal of commodities, and different consumers generate different purchase behaviors. Purchase motivation is a vital factor that influences consumer behavior (Hawkins, Mothersbaugh, & Best, 2007), and Blackwell, Miniard, and Engel (2001) proposed that consumer motivation was the driving force for consumers to satisfy their physical and psychological needs by purchasing products. Schiffman and Kanuk (2000) observed that purchase motives were based on unmet needs, that is, an internal driving force that drives consumers to take actions that satisfy their needs. When consumers were exposed to products information, their psychological or physical needs were not met. This led to tension that turned into an internal driving force, which drove consumers to take actions that satisfied their demands. This is the motivational model.

In summary, when needs are transformed into driving forces by the influence of motivation, they drive consumers to meet their needs, generating intentions. In the sharing economy, consumers are affected by social, economic, and technological influences, motivating them to become drivers, and generating usage intentions. Thus, using a sharing economic platform leads them toward a sharing lifestyle. The discussion of usage intention in this study is intended to predict the willingness of Internet users who have used or are willing to use sharing economy platforms to purchase products or services. This study also explores the relationship between consumer influence and usage intentions in the sharing economy, driven by societal, economic, and technological drivers. Therefore, we proposed the following hypotheses:

H1: Societal drivers positively affects consumers' usage intention.

H2: Economic drivers positively affects consumers' usage intention.

H3: Technological drivers positively affects consumers' usage intention.

METHODOLOGY

Conceptual Framework and Measures

According to the literature summarized in this study, the PLS path analysis of the use intention of the sharing economy. The component factors of the sharing economy, which is reflective; and through these factors and base on the literature theory to develop the formative indicators of the sharing economy drivers, including societal drivers, economic drivers, and technological drivers. Figure 1 presents the conceptual framework.

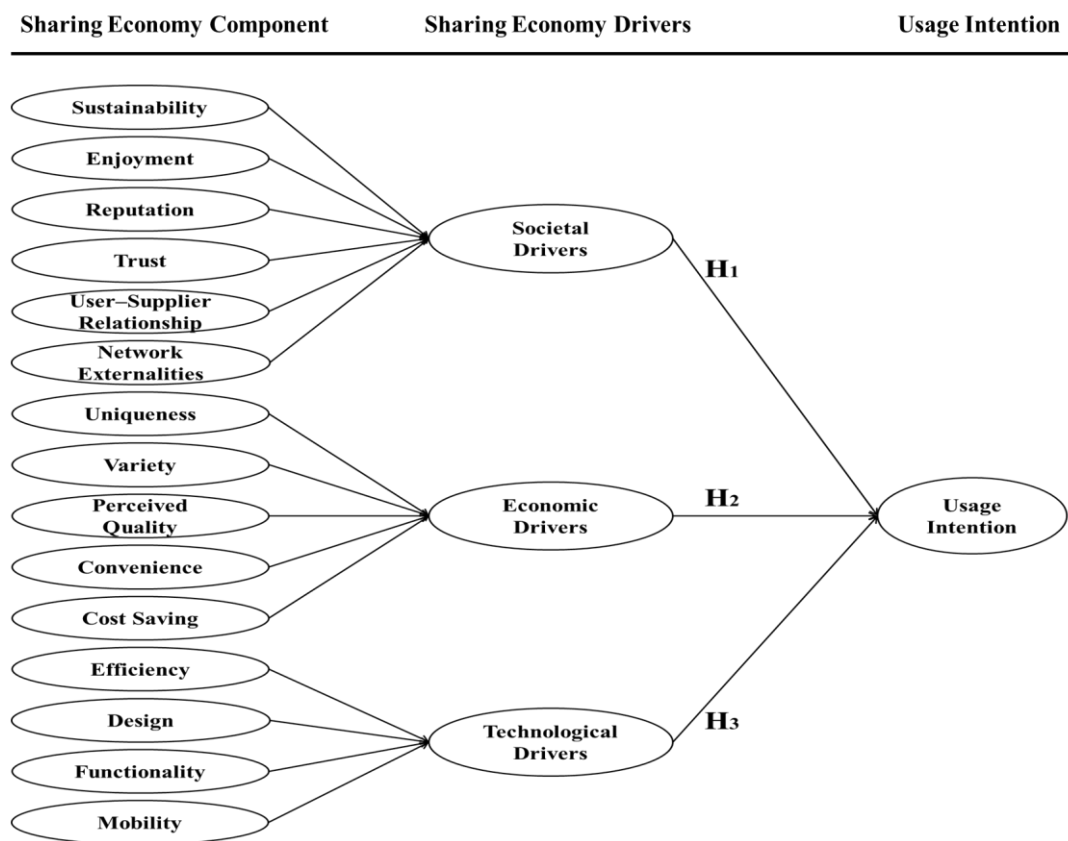


Figure 1 *Conceptual Framework*

Data Collection and Sample

The questionnaires of this research scale was based on past literature, expert interviews, and forms the research framework. The main purpose of the present study was to determine the components that form the societal, economic, and technological drivers of the sharing economy, and analyze the relationship between these sharing economy drivers and usage intentions. A total of 58 items were designed. The sharing economy drivers were a formative indicator of second-order factors. A nonspecific measurement item was used, which comprised the first-order factors of the sharing economy components. This was used to explain how the drivers consisted of sharing economy components. We adopted six-point Likert’s scale ranging from 1 (strongly disagree) to 6 (strongly agree) and recruited participants who had or were willing to use sharing economy platforms as the target of observation in order to explore consumer intentions for using sharing economy platforms. This study selected Airbnb and Uber as the two sharing economy platforms to be analyzed. This research was conducted through online survey, using InsightXplorer Cyberpanel system to collect the samples. A total of 757 valid questionnaires were collected. The sample profile was presented in Table 1.

Table 1 *Sampling Profile (N=757)*

Gender	Airbnb	Uber	Frequency	Proportion (%)
	Platform Frequency			
Male	188	166	354	46.8%
Female	204	199	403	53.2%
Age	Platform Frequency		Frequency	Proportion (%)
20-29	113	118	231	30.5%
30-39	156	166	322	42.5%
>40	123	81	204	27.0%
	Platform Total Frequency		Total Frequency	Proportion (%)
	392	365	757	100%

Credibility and Validity

To assess the internal consistency of the constructs, this study used Cronbach's α as an indicator of test reliability. According to Nunnally (1978), if the value of Cronbach's α in each construct was higher than 0.7, then the construct has passed the minimum criteria of credibility. The overall credibility of this questionnaire among each constructs were all higher than 0.8, indicating that the constructs of this research has good credibility, shown in Table 2.

Table 2 *Credibility Analysis*

	Constructs	Cronbach's α
Societal Drivers	Sustainability	0.92
	Enjoyment	0.93
	Reputation	0.92
	Trust	0.94
	User–Supplier Relationship	0.86
	Network Externalities	0.92
Economic Drivers	Uniqueness	0.93
	Variety	0.87
	Perceived Quality	0.92
	Convenience	0.92
	Cost Saving	0.92
Technological Drivers	Efficiency	0.91
	Design	0.92
	Functionality	0.92
	Mobility	0.92
Usage Intention	Usage Intention	0.87

Based on the measurement items developed from previous literatures, LISREL8.80 was used in the confirmatory factor analysis to confirm the construct of each item. The results of the analysis were $\chi^2/d.f.=2.71$, RMSEA=0.05, NFI=0.99, IFI=0.99, NNFI=0.99, CFI=0.99, RMR=0.03 and AGFI=0.82, respectively, showing that the measurement model proposed in this study was well-fitting a model.

Confirmatory Factor Analysis (CFA) was conducted to extract the factors. Regarding the criteria for validity analysis, Fornell and Larcker (1981) suggested the criteria for validity needs to fit three criteria. Firstly, the factor loadings should be larger than 0.5, then the CR needs to be 0.7 or above, lastly the AVE needs to higher than 0.5. According the results of the analysis, the factor loadings, CR, and AVE of this research were all higher than 0.7, 0.8 and 0.7 respectively, indicating the constructs of this research were valid. And did discriminant validity analysis. The square root of AVE of diagonal construct that they were all greater than the correlation coefficients of other constructs, in match with the proposed standard of discriminant reliability by Fornell and Larcker (1981), demonstrating a good discrimination among the constructs in the study.

Partial Least Squares

In this study, PLS was the analytical method used for the structural equation

models. It was mainly used to test the validity of the overall model and whether the test hypotheses were valid; PLS can be used for formative and reflective indicators (Chin, 1998). In accordance with Jarvis, Mackenzie, & Podsakoff (2003), the following four principles were proposed to determine which indicators should be used to avoid measurement errors. (1) Direction of causality from construct to measure implied by the conceptual definition. (2) Interchangeability of the indicators/items. (3) Covariation among the indicators. (4) Nomological net of the construct indicators. Formative model's direction of causality is from items to construct. Indicators need not be interchangeable. Not necessary for indicators to covary with each other. Nomological net for the indicators may differ.

To date, only a few research has been undertaken regarding sharing economy drivers (Hawlitschek et al., 2016; Owyang et al., 2014). In the present study, the societal, economic, and technological drivers were measured as sharing economy components. The sharing economy drivers of this study were formative indicators of second-order factors, which were used to explain that the drivers are composed of sharing components. According to the four principles proposed by Jarvis et al. (2003), the sharing economy drivers and sharing economy components are formative indicators. The second-order model in this study was based on the second model in the study by Jarvis et al. (2003). The variance inflation factor (VIF) was used to ascertain whether a multicollinearity problem existed among the facets. The maximum value of VIF in this study was 7.14, which was below the standard of 10 recommended by Hair et al. (1995), indicating that no multicollinearity was present. The sharing economy components and the usage intention were measured using reflective indicators. The relationship between the sharing economy drivers and the usage intention was verified through PLS analysis, and the causal relationship between them was analyzed.

RESULTS AND ANALYSIS

PLS Results

According to the model proposed in this study, the PLS path verification analysis was performed. First, PLS path validation analysis was performed for the overall data. Second, according to the different sharing platforms, the research data was divided into two groups: Airbnb and Uber. The overall model path analysis results were shown in Figure 2.

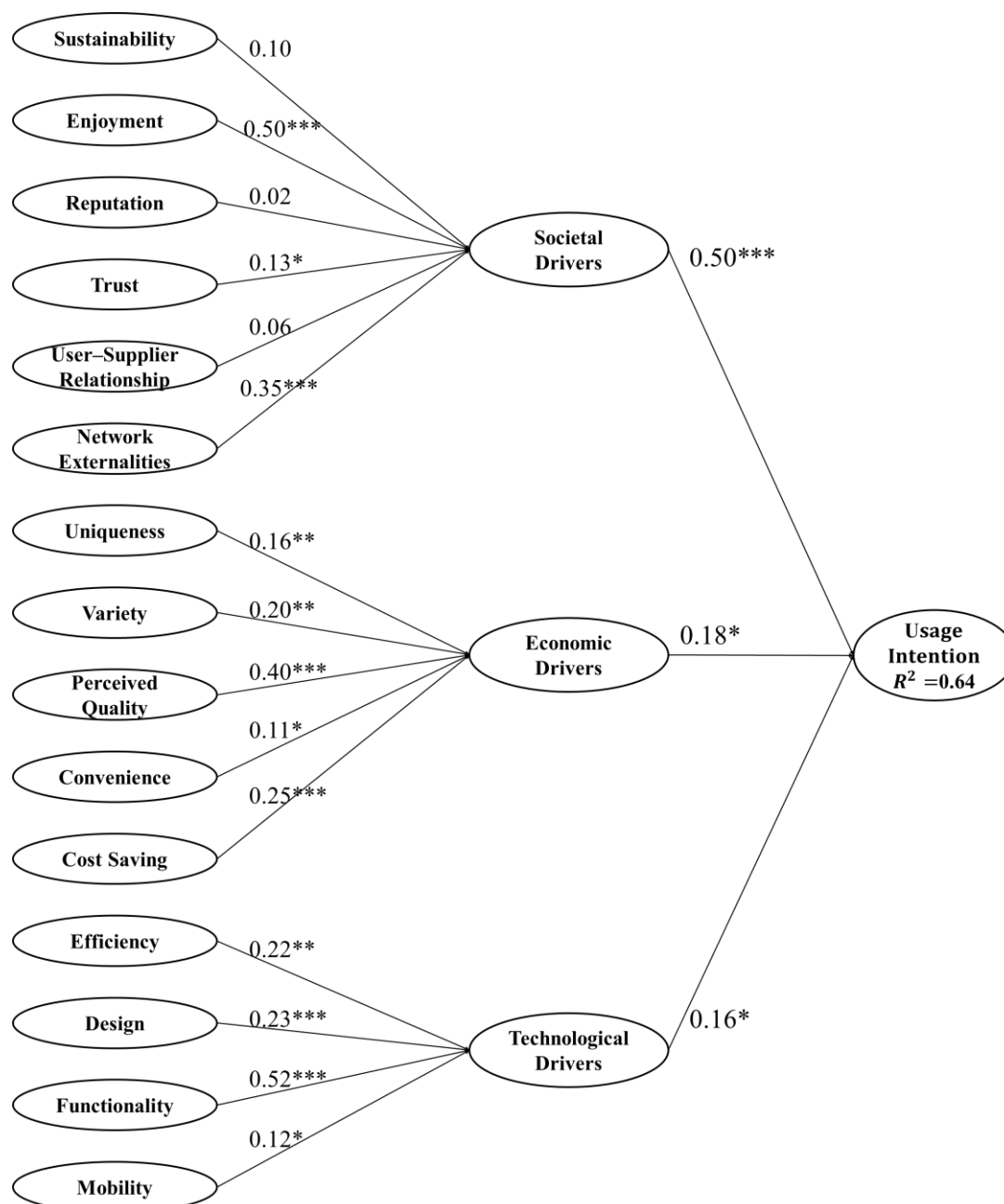


Figure 2 Results Model

The results revealed the statistically significant relationship between sharing economy drivers and consumers' usage intentions. When the societal drivers in the sharing economy platform were higher, users' usage intentions were enhanced ($\beta_s=0.50$, $t=10.08$, $p<0.001$). Thus, H1 was supported. When the economic drivers in the sharing economy platform was higher, users' usage intentions were enhanced ($\beta_e=0.18$, $t=2.39$, $p<0.05$). Thus, H2 was supported. When the technological drivers in the sharing economy platform was higher, users' usage intentions were enhanced ($\beta_t=0.16$, $t=2.35$, $p<0.05$). Hence H3 was supported.

Next, discuss the impact of sharing economy components on sharing drivers. The

sustainability ($\beta_1=0.10$, non-significant), reputation ($\beta_3=0.02$, non-significant), and user–supplier relationship ($\beta_5=0.06$, non-significant) of the components of the sharing economy do not affect the user’s societal drivers. When the enjoyment ($\beta_2=0.50$, $t=8.15$, $p<0.001$), trust ($\beta_4=0.13$, $t=1.68$, $p<0.05$), and network externalities ($\beta_6=0.35$, $t=7.22$, $p<0.001$) were higher, the societal drivers were enhanced. When the uniqueness ($\beta_e1=0.16$, $t=2.41$, $p<0.01$), variety ($\beta_e2=0.20$, $t=2.82$, $p<0.01$), perceived quality ($\beta_e3=0.40$, $t=4.71$, $p<0.001$), convenience ($\beta_e4=0.11$, $t=1.66$, $p<0.05$), and cost saving ($\beta_e5=0.25$, $t=3.77$, $p<0.001$) were higher, the economic drivers were enhanced. When the efficiency ($\beta_t1=0.22$, $t=2.71$, $p<0.01$), design ($\beta_t2=0.23$, $t=3.54$, $p<0.001$), functionality ($\beta_t3=0.52$, $t=7.52$, $p<0.001$), and mobility ($\beta_t4=0.12$, $t=1.74$, $p<0.05$) were higher, the technological drivers were enhanced. Finally, from the analysis results, we could know that the model's explanatory variation (R^2) was 0.64, indicating that the model of this study has good explanatory power.

Multi-Group

The data of each group were summarized as shown in Table 3. There were two sets of research data, divided into Airbnb and Uber based on different types of shared economic platforms. And used Chin's (2000) multi-group analysis to analyze the differences between the two platforms.

The statistically significant effect between Airbnb and Uber's drivers and consumers' usage intentions was explored. The societal drivers of Airbnb ($\beta_{\text{Airbnb}_s}=0.58$, $t=6.97$, $p<0.001$) and Uber ($\beta_{\text{Uber}_s}=0.48$, $t=8.22$, $p<0.001$) had a significant effect on increasing consumer using intention. Hypotheses H1 was thus supported, but there was no significant difference observed between the societal drivers of Airbnb and Uber. By contrast, Uber's ($\beta_{\text{Uber}_e}=0.19$, $t=1.77$, $p<0.05$) economic drivers had a statistically significant effect on increasing consumer usage intention, but Airbnb's ($\beta_{\text{Airbnb}_e}=0.08$, non-significant) did not. Hypothesis H2 was thus only supported in the case of Uber. Airbnb's ($\beta_{\text{Airbnb}_t}=0.19$, $t=2.08$, $p<0.05$) technological drivers had a statistically significant effect on increasing consumer usage intention, but Uber ($\beta_{\text{Uber}_t}=0.14$, non-significant) did not. Hypothesis H3 was thus only supported in the case of Airbnb. Next, discuss the impact of sharing economy components on sharing drivers.

Table 3 *PLS Result and Multi-Group Analysis*

Hypothesis	Total Sample	Airbnb	Uber
H1: Societal Drivers (s)→Using Intention	0.50***	0.58***	0.48***
H2: Economic Drivers (e)→Using Intention	0.18*	0.08	0.19*
H3: Technological Drivers (t)→Using Intention	0.16*	0.19*	0.14
Sharing Economy Components		Weights	
Sustainability (s1)→Societal Drivers	0.10	0.14	0.07
Enjoyment (s2)→Societal Drivers	0.50***	0.39***	0.60***
Reputation (s3)→Societal Drivers	0.02	0.09	-0.14
Trust (s4)→Societal Drivers	0.13*	0.11	0.17*
User–Supplier Relationship (s5)→Societal Drivers	0.06	0.17*	-0.02
Network Externalities (s6)→Societal Drivers	0.35***	0.24***	0.43***
Uniqueness (e1)→Economic Drivers	0.16**	0.24**	0.05
Variety (e2)→Economic Drivers	0.20**	0.20*	0.18*
Perceived Quality (e3)→Economic Drivers	0.40***	0.46***	0.35**
Convenience (e4)→Economic Drivers	0.11*	0.01	0.22*
Cost Saving (e5)→Economic Drivers	0.25***	0.19*	0.29**
Efficiency (t1)→Technological Drivers	0.22**	0.19*	0.37**
Design (t2)→Technological Drivers	0.23***	0.32***	0.16
Functionality (t3)→Technological Drivers	0.52***	0.40***	0.47***
Mobility (t4)→Technological Drivers	0.12*	0.18*	0.08

Note. *= $p < 0.05$; ** = $p < 0.01$; *** = $p < 0.001$

Societal drivers

In Airbnb, the sustainability ($\beta_{\text{Airbnb_s1}}=0.14$, non-significant), reputation ($\beta_{\text{Airbnb_s3}}=0.09$, non-significant), and trust ($\beta_{\text{Airbnb_s4}}=0.11$, non-significant) do not affect the user's societal drivers. When the enjoyment ($\beta_{\text{Airbnb_s2}}=0.39$, $t=4.30$, $p<0.001$), user–supplier relationship ($\beta_{\text{Airbnb_s5}}=0.17$, $t=2.05$, $p<0.05$), and network externalities ($\beta_{\text{Airbnb_s6}}=0.24$, $t=3.81$, $p<0.001$) were higher, the societal drivers were enhanced.

In Uber, the sustainability ($\beta_{\text{Uber_s1}}=0.07$, non-significant), reputation ($\beta_{\text{Uber_s3}}=-0.14$, non-significant), and user–supplier relationship ($\beta_{\text{Uber_s5}}=-0.02$, non-significant) do not affect the user's societal drivers. When the enjoyment ($\beta_{\text{Uber_s2}}=0.60$, $t=7.62$, $p<0.001$), trust ($\beta_{\text{Uber_s4}}=0.17$, $t=1.69$, $p<0.05$), and network externalities ($\beta_{\text{Uber_s6}}=0.43$, $t=5.81$, $p<0.001$) were higher, the societal drivers were enhanced.

Economic drivers

In Airbnb, when the uniqueness ($\beta_{\text{Airbnb_e1}}=0.24$, $t=2.57$, $p<0.01$), variety ($\beta_{\text{Airbnb_e2}}=0.20$, $t=1.92$, $p<0.05$), perceived quality ($\beta_{\text{Airbnb_e3}}=0.46$, $t=4.09$, $p<0.001$), and cost saving ($\beta_{\text{Airbnb_e5}}=0.19$, $t=2.23$, $p<0.05$) were higher, the economic drivers were enhanced. Only convenience ($\beta_{\text{Airbnb_e4}}=0.01$, non-significant) was no apparent effect on economic drivers.

In Uber, only uniqueness ($\beta_{\text{Uber_e1}}=0.05$, non-significant) was no apparent effect on economic drivers. When the variety ($\beta_{\text{Uber_e2}}=0.18$, $t=1.84$, $p<0.05$), perceived quality ($\beta_{\text{Uber_e3}}=0.35$, $t=2.77$, $p<0.01$), convenience ($\beta_{\text{Uber_e4}}=0.22$, $t=1.80$, $p<0.05$), and cost saving ($\beta_{\text{Uber_e5}}=0.29$, $t=2.98$, $p<0.01$) were higher, the economic drivers were enhanced.

Technological drivers

In Airbnb, the efficiency ($\beta_{\text{Airbnb_t1}}=0.19$, $t=1.88$, $p<0.05$), design ($\beta_{\text{Airbnb_t2}}=0.32$, $t=3.34$, $p<0.001$), functionality ($\beta_{\text{Airbnb_t3}}=0.40$, $t=5.16$, $p<0.001$), and mobility ($\beta_{\text{Airbnb_t4}}=0.18$, $t=2.08$, $p<0.05$) were higher, the technological drivers were enhanced.

In Uber, when the efficiency ($\beta_{\text{Uber_t1}}=0.29$, $t=2.98$, $p<0.01$) and functionality ($\beta_{\text{Uber_t3}}=0.47$, $t=5.19$, $p<0.001$) were higher, the technological drivers were enhanced. Design ($\beta_{\text{Uber_t2}}=0.16$, non-significant) and mobility ($\beta_{\text{Uber_t4}}=0.08$, non-significant) were no apparent effect on technological drivers.

CONCLUSION

According to the results of this study, in the overall sample, societal, economic, and technological drivers had an effect on usage intention of the sharing economy. Users chose to use sharing economy platforms because of the three driving forces (i.e., societal, economic, and technological drivers), which echoed the findings of Owyang et al. (2014). Among the factors that formed the societal drivers, sustainability did not produce results. This may be because sustainability was particularly emphasized on the sharing platform; therefore, users were not made aware of the importance of sustainability and how resource utilization could be improved through sharing. By contrast, enjoyment had an impact on societal drivers. This indicated that enjoyment when using sharing economy platforms enhanced consumers' affection for the platform. This was consistent with the arguments of Kim, Chan, & Gupta (2007) and Harmari et al. (2016). However, reputation had no statistically significant effect on societal drivers. This may be because consumers focused more on their relationship with or trust in the sharing economy platform, which meant that reputation was not a primary societal driver. As trust increased, so too did users' social drive in the sharing economy, which was consistent with the arguments of World Economic Forum (2013). The user–

supplier relationship had no statistically significant effect on societal drivers. This is likely because the services provided on most sharing economy platforms were single use and short lived, and therefore users were less concerned with the relationship between user and supplier. Consequently, the user–supplier relationship had no statistically significant effect in the overall sample. By contrast, network externalities did have an impact on societal drivers. Users were affected by friends and family using sharing economy platforms. This finding is similar to the arguments of Lin & Lu (2011). Uniqueness, diversity, cognitive quality, convenience, and cost savings all had an impact on economic drivers. This finding is in accordance with that of Kim et al. (2015), Chapman and Wahlers (1999), Owyang et al. (2014), and Hamari et al. (2016). Efficiency, design, functionality, and mobility had notable effects on technological drivers of consumers using sharing economy platforms. This argument is similar to that of Parasuraman et al. (2005), Barrera et al. (2014), and Clarke (2001), who suggested that users' willingness to use websites or apps increases the willingness of both parties to trade.

The components of economic drivers and technological drivers were revealed to have notable effects. In the formation of societal drivers, the components of sustainability, reputation, and user–supplier relationships did not produce obvious effects, which differed to the results in the literature. The platforms chosen for this study may have lacked in their sustainability, reputation, and user–supplier relationship. However, sustainability can exist in second-hand sharing economy platforms. In Wasko & Faraj (2005) research, reputation was found to have a statistically significant effect, so it may exist in platforms that focus on shared knowledge. Moreover, user–supplier relationships may be apparent in shared platforms that involve long-term contact with suppliers, such as Airbnb. The results of this study deserve further exploration over a variety of sharing platforms.

From the group sample, societal and technological drivers affected consumers' usage intention for Airbnb. Moreover, the economic drivers had no obvious effect. This study observed that Airbnb was not cheaper than other accommodation sites. However, users may choose to use Airbnb because they want to experience local life. Therefore, the economic driving force was reduced and the social driving force was increased. Airbnb's technology in the design and function of the platform is particularly important to users. Therefore, technological drivers are one of the reasons why consumers use sharing economy platforms. Uber's societal drivers and economic drivers affected consumers' usage intention. Thus, for the consumer, social and economic benefits are still important and one of the reasons for using sharing economy platforms.

In the analysis of the sharing economy components of societal drivers, Airbnb was composed of enjoyment, user–supplier relationship, and network externalities. Uber

was composed of enjoyment, trust, and network externalities. Enjoyment and network externalities had an effect on both platforms, meaning that sharing brought consumers happiness and made them enjoy the platform. Users were also encouraged to use the platforms by their relatives and friends using Airbnb and Uber. The increased number of users has led to an increasing number of participating landlords and drivers. This has also increased the impact of network externalities. The user–supplier relationship had a statistically significant effect on Airbnb. Users are required to communicate with the host when booking an Airbnb, and they provide feedback after their stay. Therefore, this user–supplier relationship is one of the main drivers of consumers' use of Airbnb. Conversely, the services provided by Uber are one off and short lived, and entail less contact between users and suppliers. Thus, the user–supplier relationship effect was minimal. Trust only had an effect in the case of Uber. Consumers may have many reasons to use Airbnb, and there are different factors such type of accommodation, location, and price. Consumers choose accommodation based on their needs; therefore, the requirements for trust are different. Trust may not be the main cause of Airbnb's societal drivers. By contrast, Uber involves sharing with unknown car drivers. However, because of the short ride time and regulations on drivers and vehicles, trust was one of the main reasons driving consumers' use of Uber.

Variety, perceived quality, and cost saving externalities were the sharing economy drivers that were found to have an effect. This study observed that as more suppliers provided services, more houses and vehicles were available on the platforms for consumers to choose, and the services provided by the platforms remained at a high-quality and reasonable price. This not only met users' requirements but also helped them save costs, thereby becoming the motivation for users to use the sharing economy platforms. In addition, uniqueness was noted as a driver for Airbnb. This indicated that consumers agree that Airbnb's accommodation and services are unique and different from those of other platforms. By contrast, uniqueness had no obvious effect with Uber. This is probably because the services provided by Uber do not differ greatly from those of traditional taxis. Therefore, consumers did not feel the uniqueness of the platform. However, the driver of convenience was only effective for Uber. Uber allows users to quickly contact drivers and complete transactions; therefore, it was the primary reason that consumers chose to use Uber. By contrast, Airbnb's economic drivers had many other different factors that consumers considered when they chose accommodation, which meant that convenience was not a notable economic driver.

Efficiency and functionality externalities were the shared technological drivers that were found to have an effect, indicating that Airbnb and Uber's functions and search capabilities had a positive impact on users. The services provided enabled consumers to quickly find a room or driver, and users noted the efficiency of the

technology. These are the main technological drivers in the sharing economy. For Airbnb, design and mobility drivers were effective because its platform provides considerable information. The architecture of the platform is organized, the information is clear, the interface color is appropriate, and homeowners typically upload appealing photos to the platform. Users can learn about the selected rooms when they browse the room type. This means that the design meets users' requirements, which was one of the main factors that formed technological drivers. In addition, Airbnb offers a wide range of housing options for users worldwide. Users can make reservations through Airbnb at any time and place and contact the owner through the platform. This explains why mobility was one of the main technological drivers for Airbnb. Conversely, Uber's lack of obvious effect for this driver may be because Uber and traditional taxis can provide users with services at any time and place. Therefore, mobility was not a primary driver for consumers to use Uber.

In terms of theoretical contributions, this research used PLS analysis to verify the relationships among societal, economic, and technological drivers and usage intention in the sharing economy, as well as to extend the discussion of Owyang et al. (2014), Rick (2013) to propose the drivers of the sharing economy. Formative indicators were used to validate the components of societal, economic, and technological drivers across two sharing economy platforms. The results revealed the usage intentions and composition of sharing economy components for Airbnb and Uber, with different effects and combinations.

Regarding practical contributions, according to the overall results, societal, economic, and technological drivers in the sharing economy have a significant impact on usage intention. This study suggests that in the future, when designing activities for sharing economy platforms, the characteristics of each platform should be considered. For example, finding the sharing drivers with the most influence and using them for publicity to achieve maximum results. From the results of this study regarding Airbnb and Uber, the following suggestions can be made. First, Airbnb should integrate more closely with social networking sites to attract more people through the power of community. The driver of network externalities can be used to attract more users to Airbnb reservations and improve user intentions. In addition, the function, quality of accommodation, and quality of service provided by the platform can also enhance consumers' motivation. By contrast, Uber should continue to maintain the quality of its cars and car drivers, alongside its low prices, thereby enabling users to enjoy high-quality service at a low price. The functions provided on Uber's app also inspired usage intentions. Therefore, Uber should continue to optimize the functionality provided by its app, keeping the app relevant to consumers' usage habits. In addition, this study suggests that Uber should not focus on the user-supplier relationship, uniqueness, or

mobility. These constructs are also present in traditional taxi services; therefore, they are not reasons for consumers to specifically choose Uber.

Because of time and cost considerations, this study selected the well-known sharing economy platforms Airbnb and Uber. Other types of sharing platforms should be studied in the future that possess different combinations of sharing economy drivers. In addition, if the follow up sharing economy studies discuss the same industry sharing platforms, in addition to discuss the statistically significant situations of consumers' usage intentions on each sharing platform, it may also compare consumers' usage and sharing economy drivers between different sharing platforms. The discussion could also be extended to other components of sharing economy drivers, or personal traits could be added as a variable to explore the relationship between types of consumers and usage intention. In addition, the sample collection for this study only included Taiwanese Internet users. Therefore, the usage intentions of users from could be examined in the future to improve the generalizability of the research results. In summary, this study serves as a reference for future research on the sharing economy. Further in-depth research on the components that affect the sharing economy can be conducted based on these findings for a more comprehensive study.

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